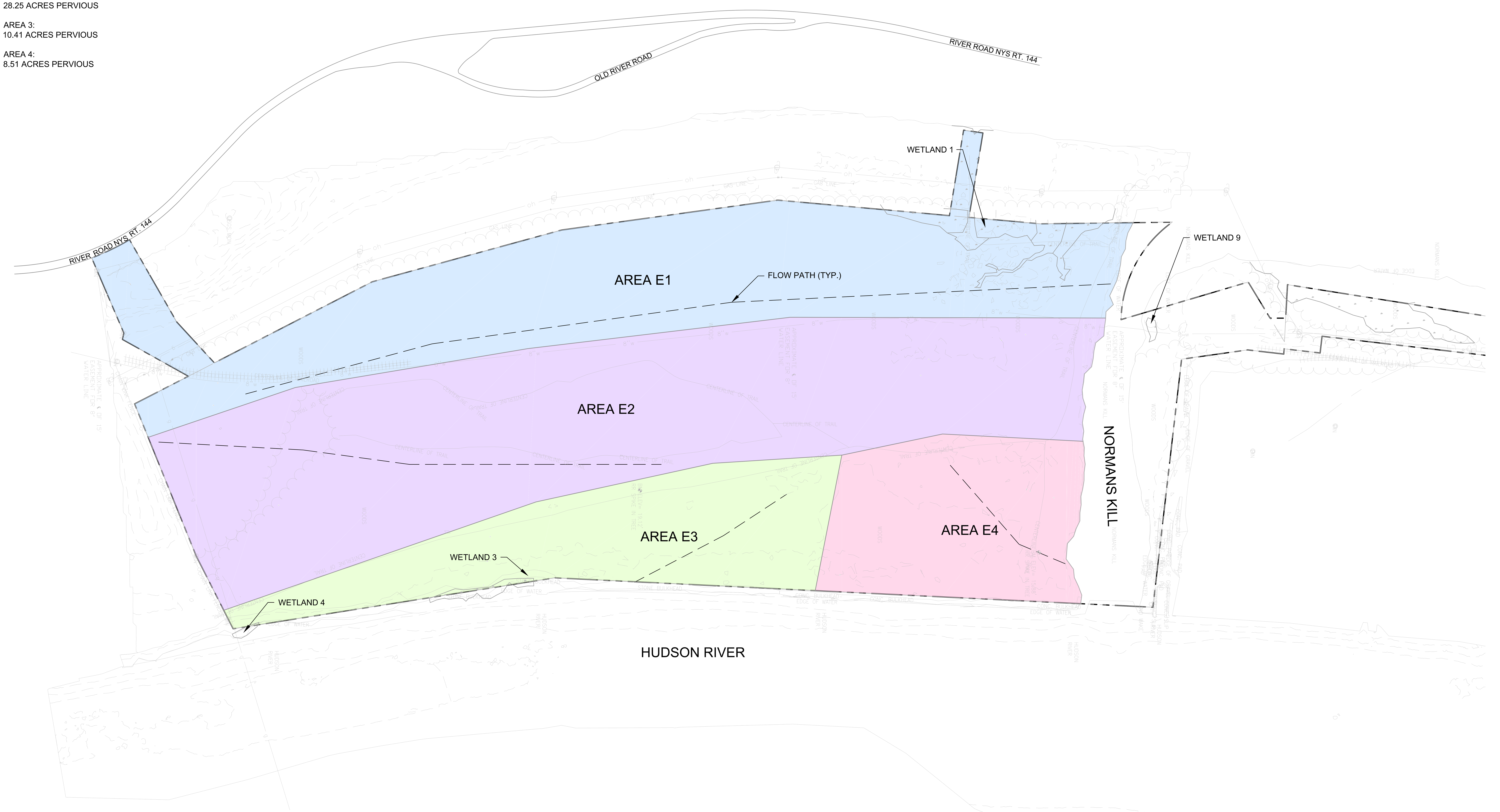
PRE-DEVELOPMENT WATERSHEDS:

AREA 1:
1.60 ACRES IMPERVIOUS
20.75 ACRES PERVIOUS

AREA 2:
2.00 ACRES IMPERVIOUS
28.25 ACRES PERVIOUS

AREA 3:
10.41 ACRES PERVIOUS

AREA 4:
8.51 ACRES PERVIOUS




0 150 300 450 FT
SCALE


McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com


PROJECT MILESTONE
CONCEPT SITE PLAN

| NO. | DATE | DESCRIPTION |
|---|---|---|

CLIENT:
ALBANY PORT DISTRICT COMMISSION
BETHLEHEM, NEW YORK

PROJECT:
PORT OF ALBANY EXPANSION

| | |
|---|---|
| DRAWN | NSO |
| DESIGNED | NSO |
| CHECKED | -- |
| SCALE | 1"=150' |
| DATE | MAY 2019 |
| PROJECT | 18437.00 |



DRAWING TITLE

EXISTING DRAINAGE CONDITIONS

DRAWING NUMBER

D-01

---- OF ----

## Summary for Subcatchment 1S: EX 1

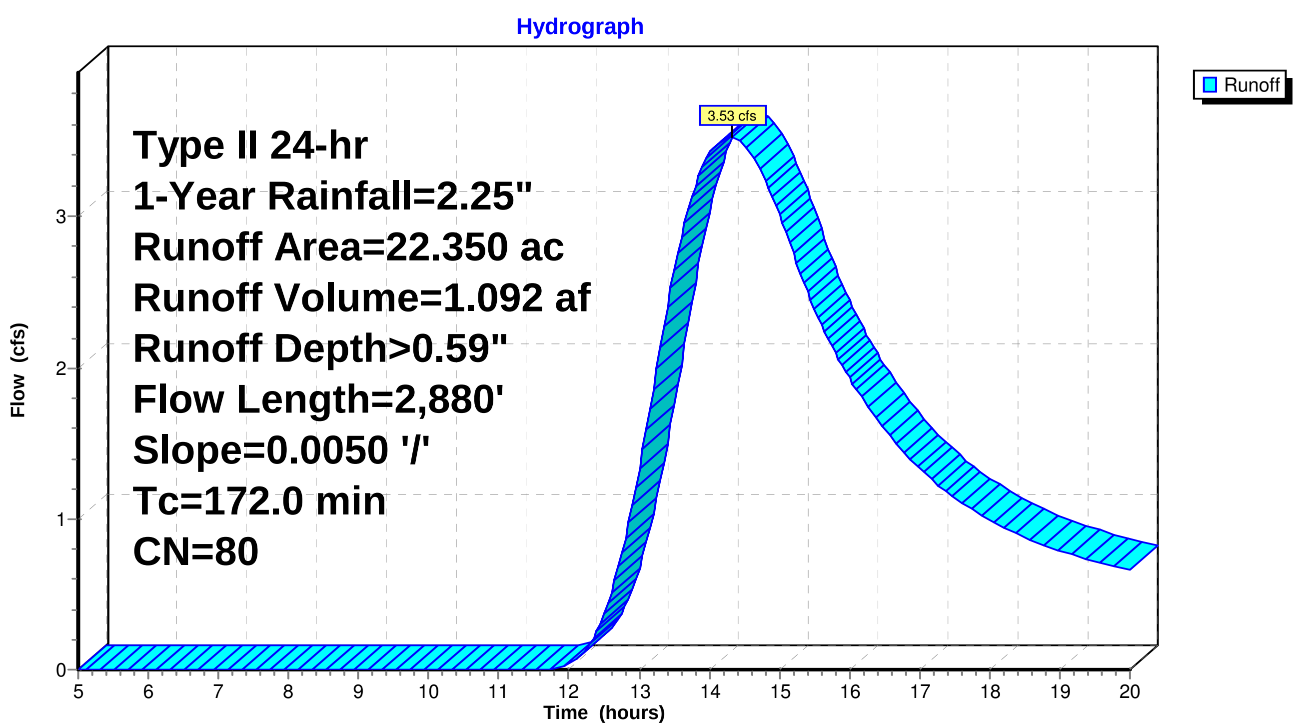
Runoff = 3.53 cfs @ 14.32 hrs, Volume= 1.092 af, Depth> 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| | Area (ac) | CN | Description |
|---|---|---|---|
| | 20.750 | 79 | Woods, Fair, HSG D |
| * | 1.600 | 98 | Railroad |
| | 22.350 | 80 | Weighted Average |
| | 20.750 | | 92.84% Pervious Area |
| | 1.600 | | 7.16% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 40.9 | 100 | 0.0050 | 0.04 | | **Sheet Flow, Sheet - Woods** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 131.1 | 2,780 | 0.0050 | 0.35 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 172.0 | 2,880 | Total | | | |

## Subcatchment 1S: EX 1



## Summary for Subcatchment 2S: EX 2

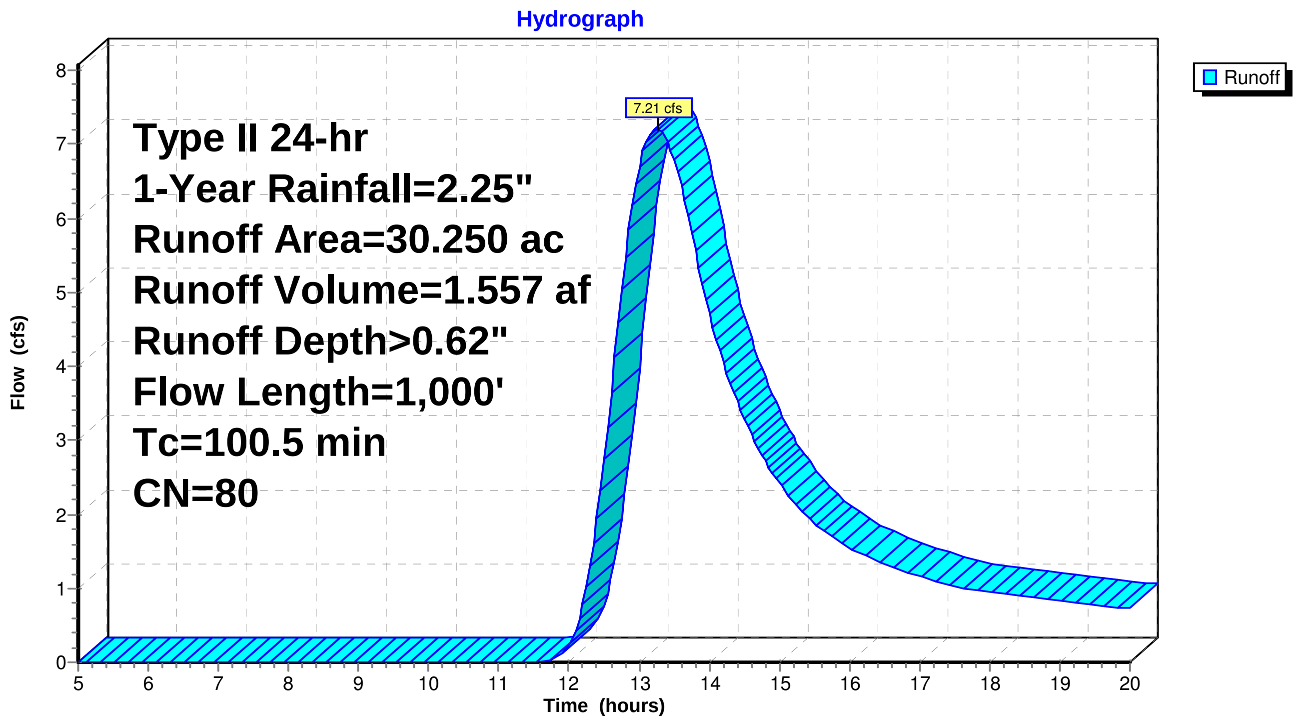
Runoff = 7.21 cfs @ 13.27 hrs, Volume= 1.557 af, Depth> 0.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| Area (ac) | CN | Description |
|---|---|---|
| 28.250 | 79 | Woods, Fair, HSG D |
| 2.000 | 96 | Gravel surface, HSG D |
| 30.250 | 80 | Weighted Average |
| 30.250 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 33.4 | 100 | 0.0030 | 0.05 | | **Sheet Flow, Sheet** Grass: Dense n= 0.240 P2= 2.67" |
| 67.1 | 900 | 0.0020 | 0.22 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 100.5 | 1,000 | Total | | | |

### Subcatchment 2S: EX 2



## Summary for Subcatchment 3S: EX 3

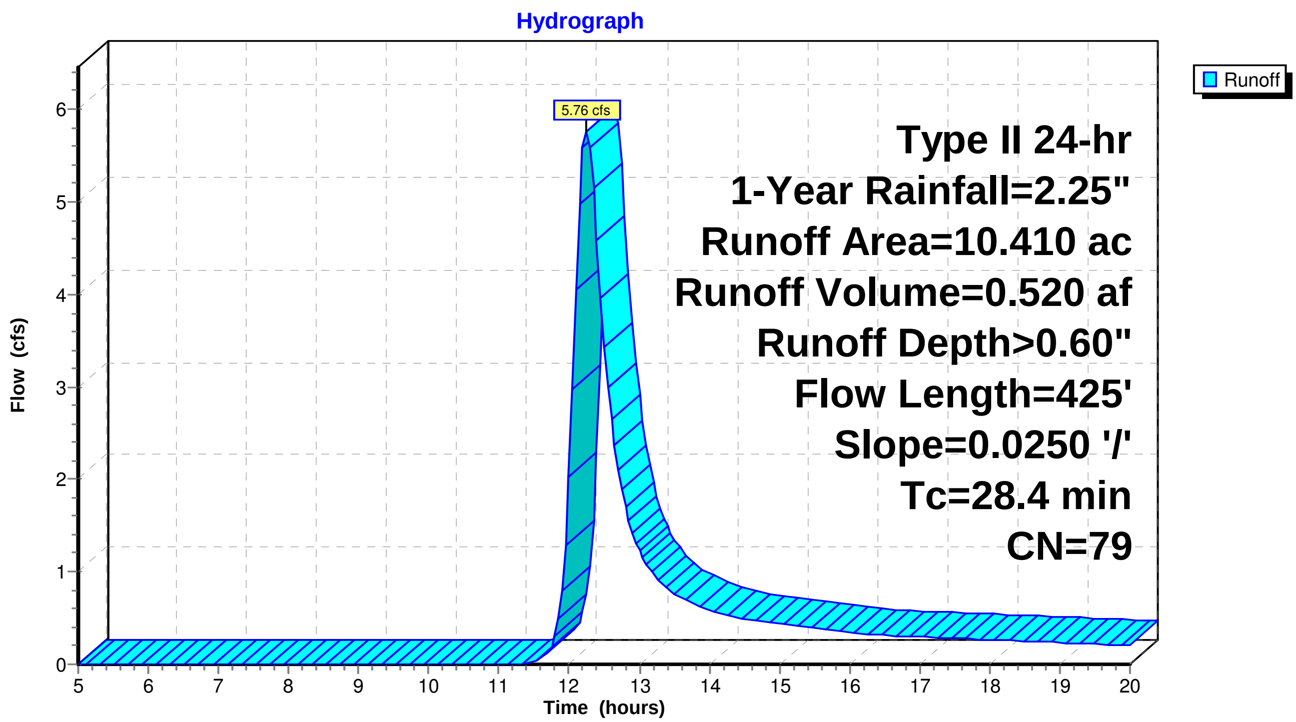
Runoff = 5.76 cfs @ 12.25 hrs, Volume= 0.520 af, Depth> 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| Area (ac) | CN | Description |
|---|---|---|
| 10.410 | 79 | Woods, Fair, HSG D |
| 10.410 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 21.5 | 100 | 0.0250 | 0.08 | | **Sheet Flow, Sheet** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 6.9 | 325 | 0.0250 | 0.79 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 28.4 | 425 | Total | | | |

### Subcatchment 3S: EX 3



## Summary for Subcatchment 4S: EX 4

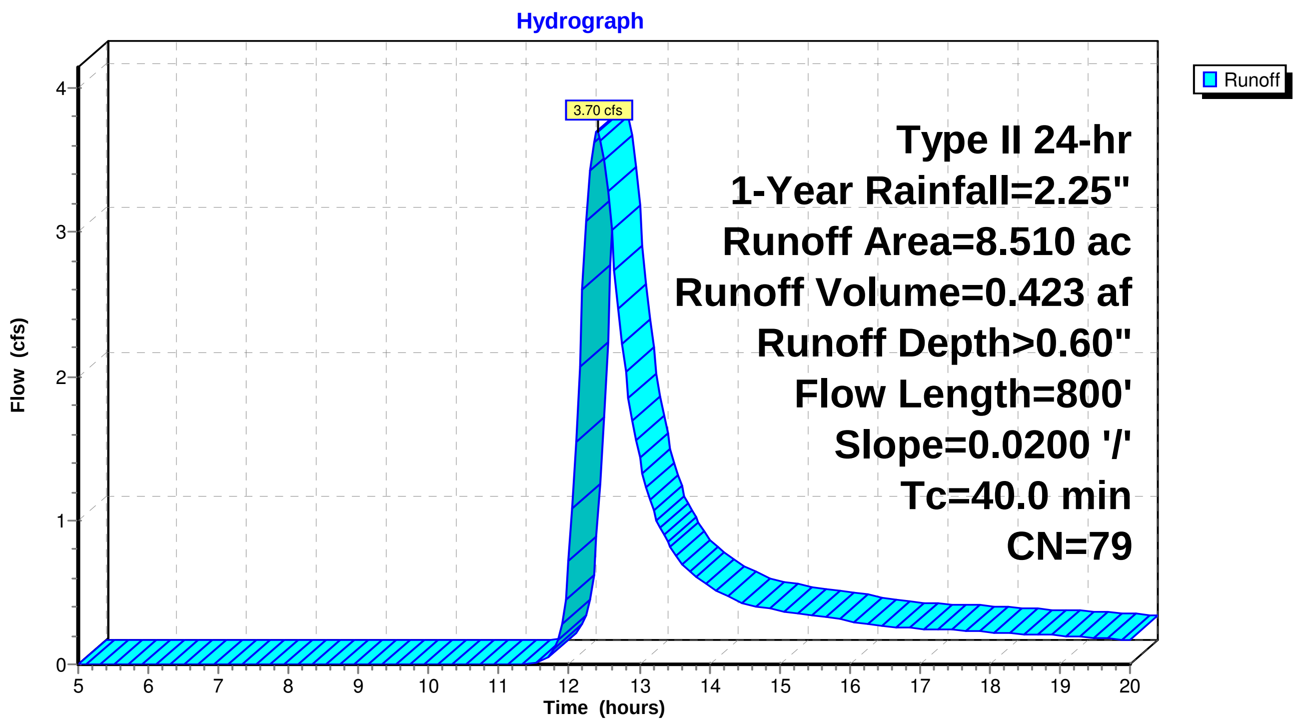
Runoff = 3.70 cfs @ 12.40 hrs, Volume= 0.423 af, Depth> 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| Area (ac) | CN | Description |
|---|---|---|
| 8.510 | 79 | Woods, Fair, HSG D |
| 8.510 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 23.5 | 100 | 0.0200 | 0.07 | | **Sheet Flow, Sheet** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 16.5 | 700 | 0.0200 | 0.71 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 40.0 | 800 | Total | | | |

## Subcatchment 4S: EX 4



## Summary for Subcatchment 1S: EX 1

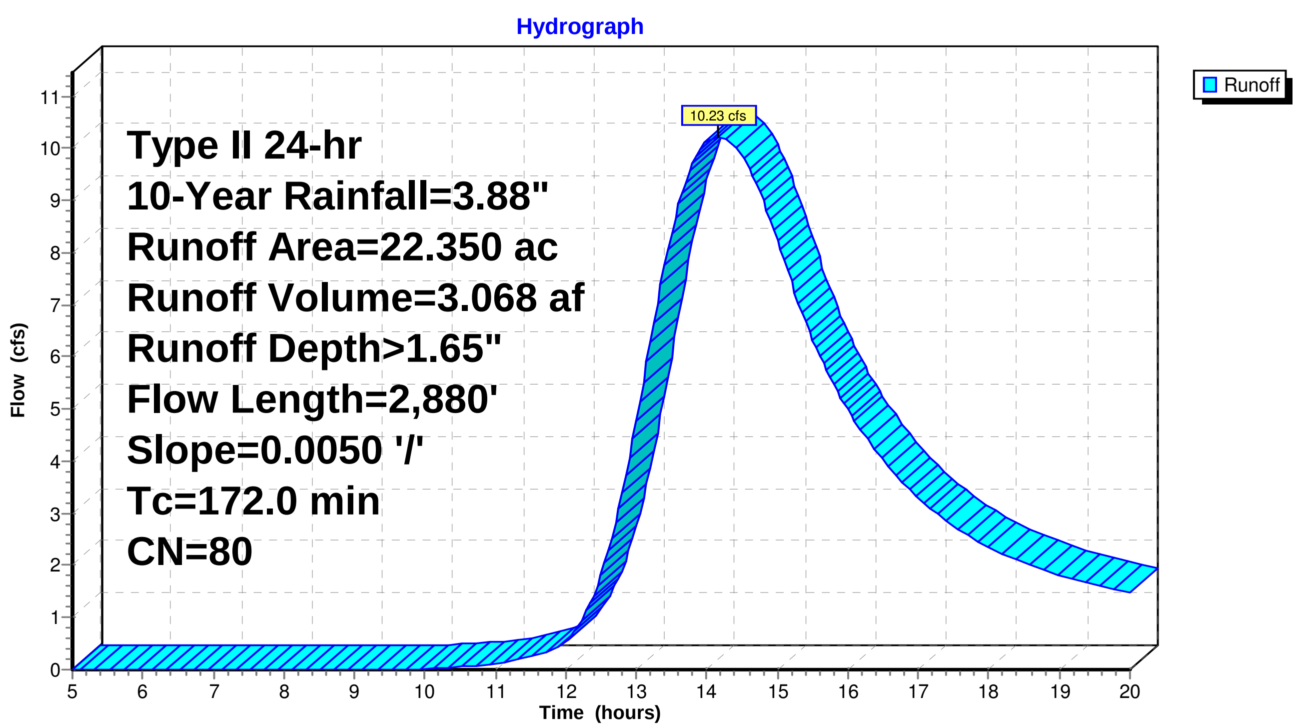
Runoff = 10.23 cfs @ 14.16 hrs, Volume= 3.068 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| | Area (ac) | CN | Description |
|---|---|---|---|
| | 20.750 | 79 | Woods, Fair, HSG D |
| * | 1.600 | 98 | Railroad |
| | 22.350 | 80 | Weighted Average |
| | 20.750 | | 92.84% Pervious Area |
| | 1.600 | | 7.16% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 40.9 | 100 | 0.0050 | 0.04 | | **Sheet Flow, Sheet - Woods**<br>Woods: Light underbrush n= 0.400 P2= 2.67" |
| 131.1 | 2,780 | 0.0050 | 0.35 | | **Shallow Concentrated Flow, Shallow**<br>Woodland Kv= 5.0 fps |
| 172.0 | 2,880 | Total | | | |

### Subcatchment 1S: EX 1



## Summary for Subcatchment 2S: EX 2

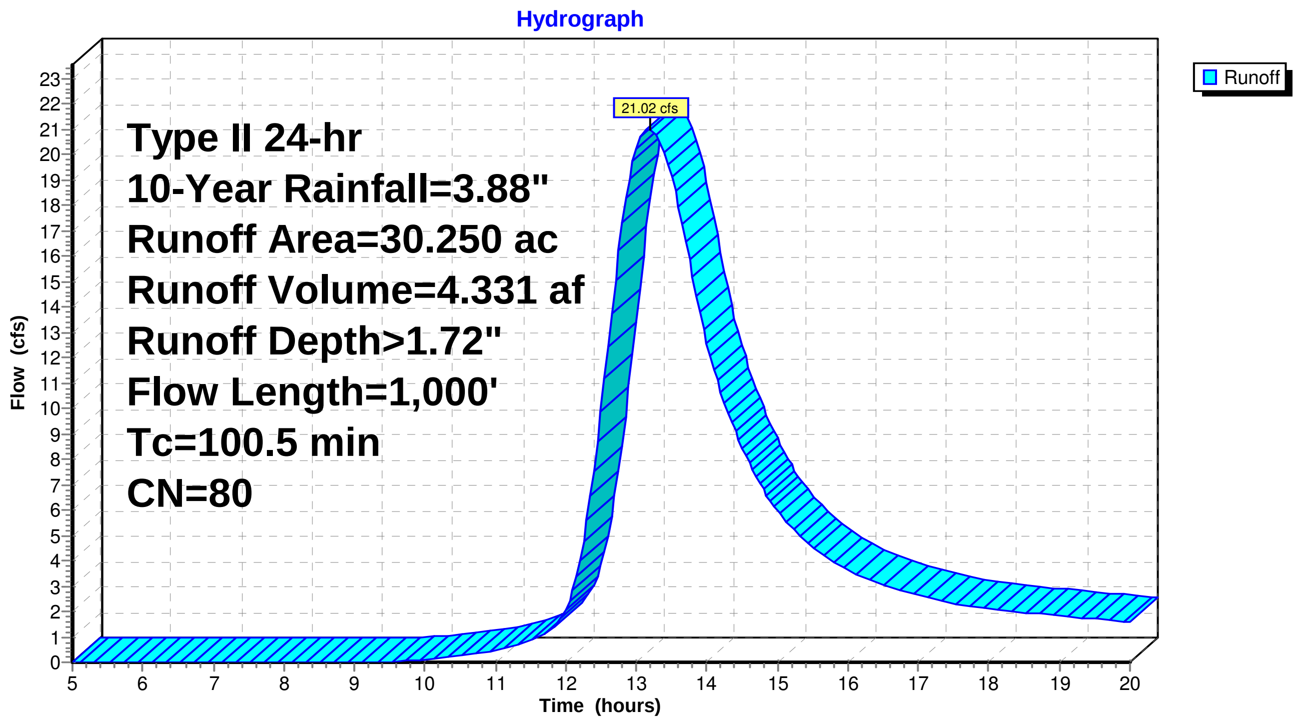
Runoff = 21.02 cfs @ 13.19 hrs, Volume= 4.331 af, Depth> 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| Area (ac) | CN | Description |
|---|---|---|
| 28.250 | 79 | Woods, Fair, HSG D |
| 2.000 | 96 | Gravel surface, HSG D |
| 30.250 | 80 | Weighted Average |
| 30.250 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 33.4 | 100 | 0.0030 | 0.05 | | **Sheet Flow, Sheet**<br>Grass: Dense n= 0.240 P2= 2.67" |
| 67.1 | 900 | 0.0020 | 0.22 | | **Shallow Concentrated Flow, Shallow**<br>Woodland Kv= 5.0 fps |
| 100.5 | 1,000 | Total | | | |

## Subcatchment 2S: EX 2



## Summary for Subcatchment 3S: EX 3

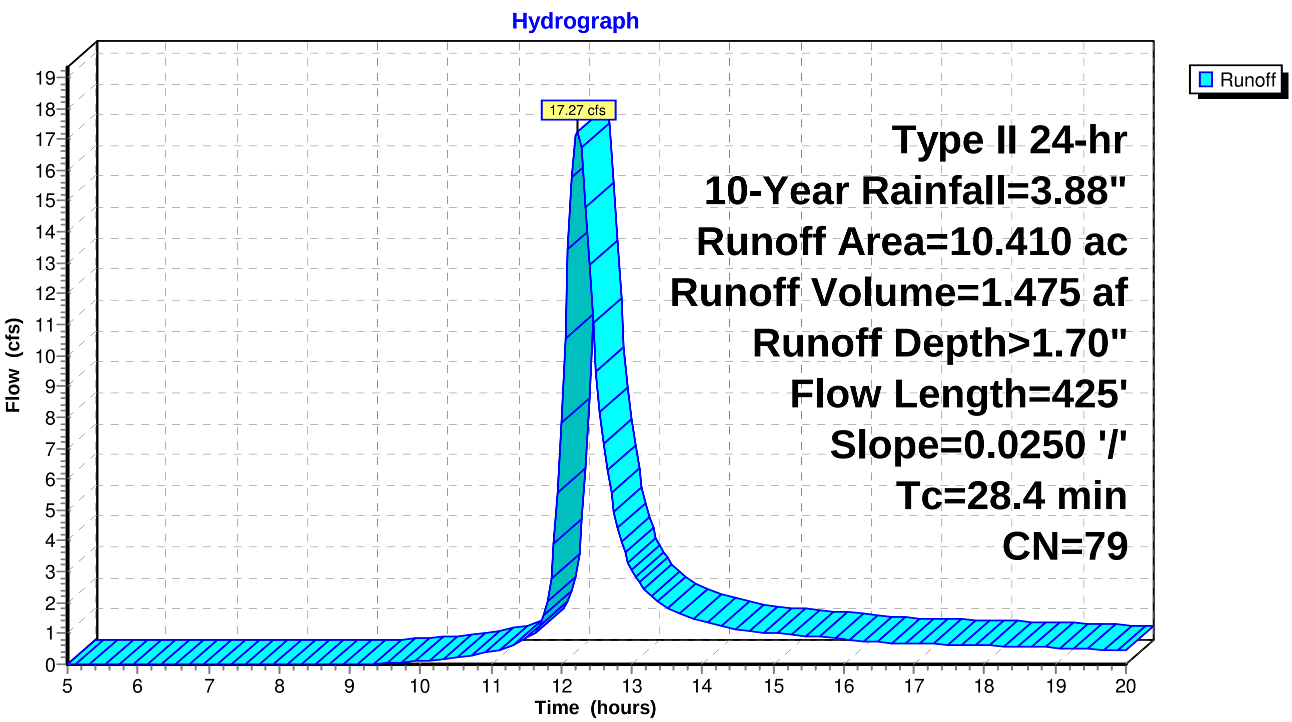
Runoff = 17.27 cfs @ 12.23 hrs, Volume= 1.475 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| Area (ac) | CN | Description |
|---|---|---|
| 10.410 | 79 | Woods, Fair, HSG D |
| 10.410 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 21.5 | 100 | 0.0250 | 0.08 | | **Sheet Flow, Sheet** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 6.9 | 325 | 0.0250 | 0.79 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 28.4 | 425 | Total | | | |

### Subcatchment 3S: EX 3



## Summary for Subcatchment 4S: EX 4

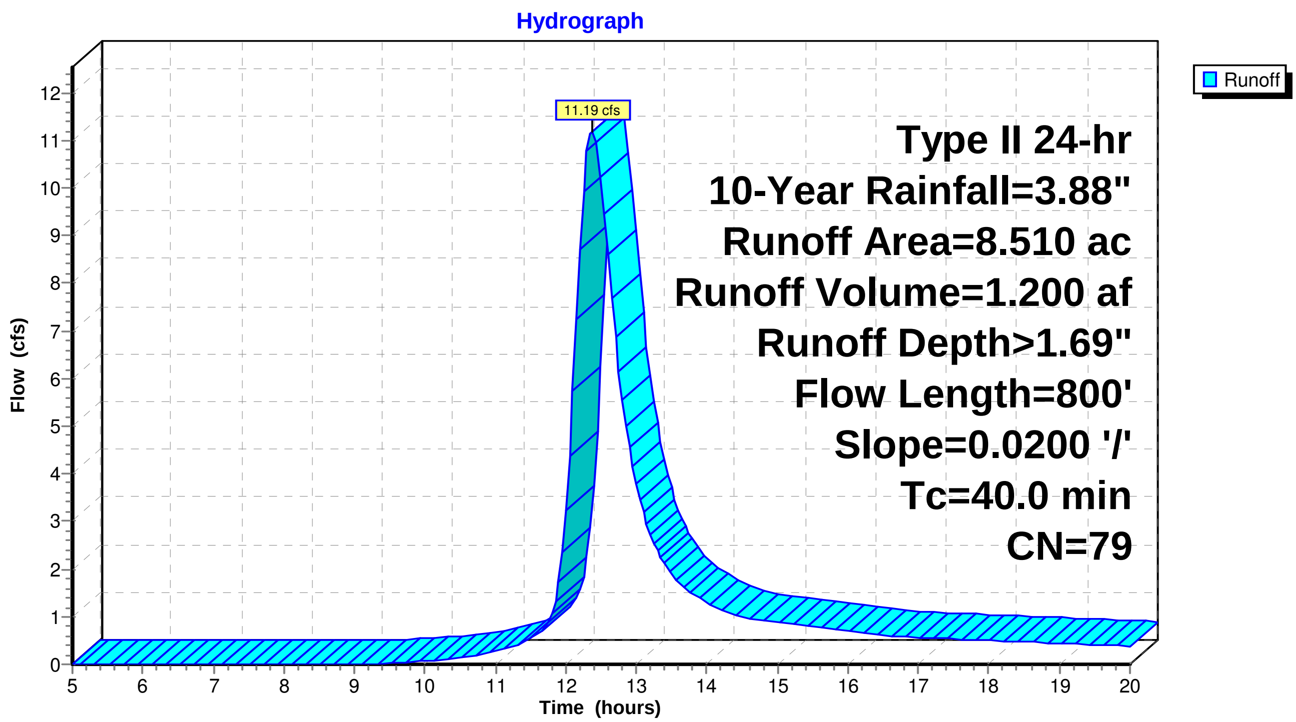
Runoff = 11.19 cfs @ 12.38 hrs, Volume= 1.200 af, Depth> 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| Area (ac) | CN | Description |
|---|---|---|
| 8.510 | 79 | Woods, Fair, HSG D |
| 8.510 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 23.5 | 100 | 0.0200 | 0.07 | | **Sheet Flow, Sheet** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 16.5 | 700 | 0.0200 | 0.71 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 40.0 | 800 | Total | | | |

### Subcatchment 4S: EX 4



## Summary for Subcatchment 1S: EX 1

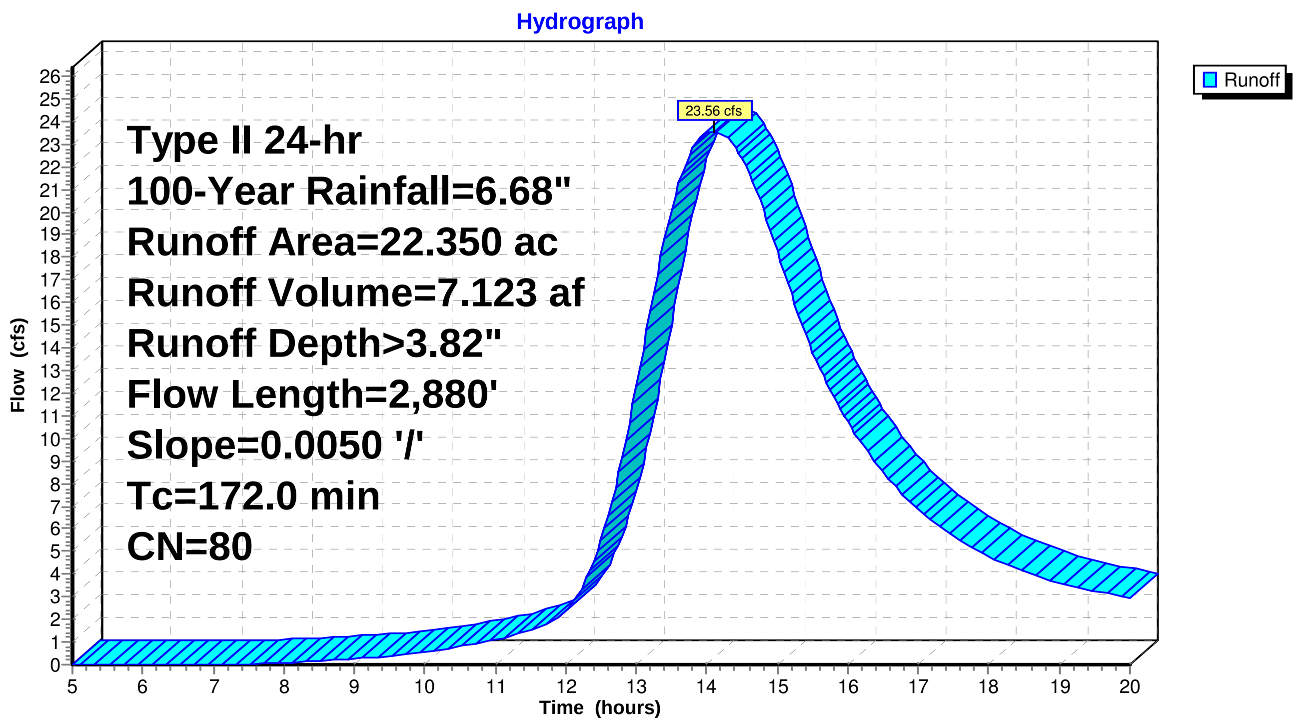
Runoff = 23.56 cfs @ 14.10 hrs, Volume= 7.123 af, Depth> 3.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| | Area (ac) | CN | Description |
|---|---|---|---|
| | 20.750 | 79 | Woods, Fair, HSG D |
| * | 1.600 | 98 | Railroad |
| | 22.350 | 80 | Weighted Average |
| | 20.750 | | 92.84% Pervious Area |
| | 1.600 | | 7.16% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 40.9 | 100 | 0.0050 | 0.04 | | **Sheet Flow, Sheet - Woods** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 131.1 | 2,780 | 0.0050 | 0.35 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 172.0 | 2,880 | Total | | | |

### Subcatchment 1S: EX 1



## Summary for Subcatchment 2S: EX 2

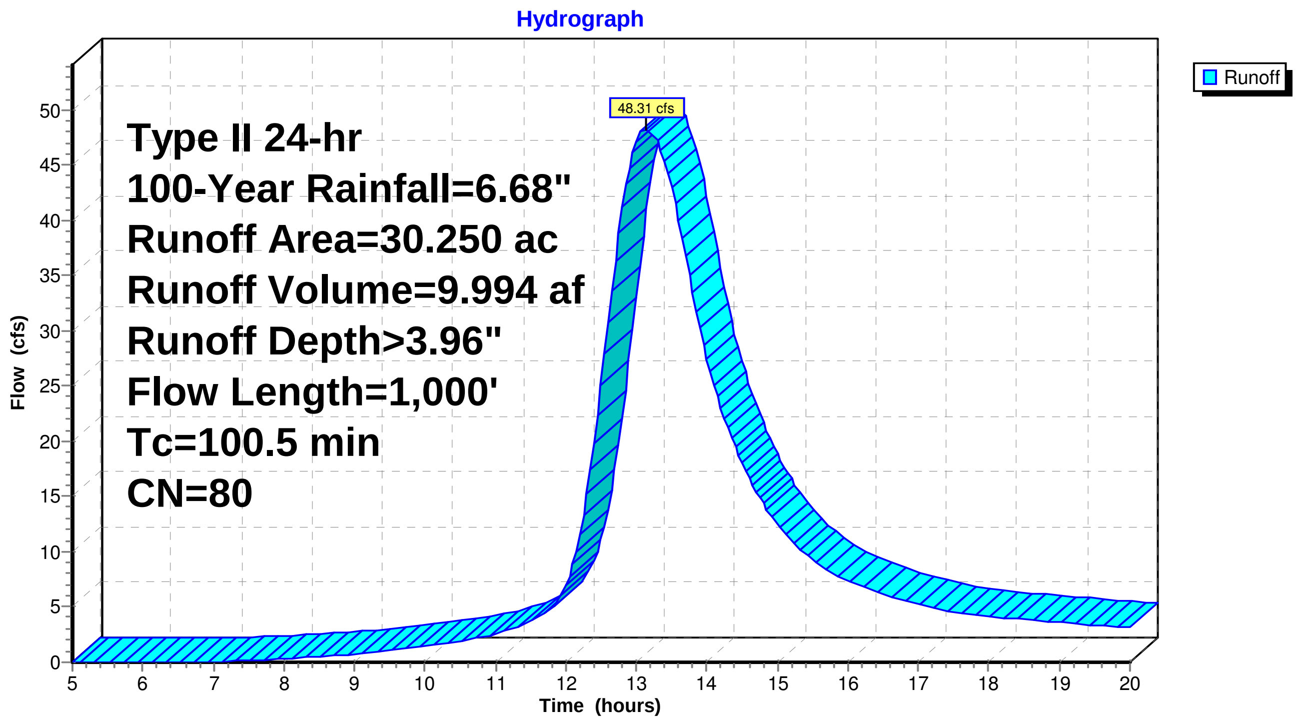
Runoff = 48.31 cfs @ 13.13 hrs, Volume= 9.994 af, Depth> 3.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| Area (ac) | CN | Description |
|---|---|---|
| 28.250 | 79 | Woods, Fair, HSG D |
| 2.000 | 96 | Gravel surface, HSG D |
| 30.250 | 80 | Weighted Average |
| 30.250 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 33.4 | 100 | 0.0030 | 0.05 | | **Sheet Flow, Sheet** Grass: Dense n= 0.240 P2= 2.67" |
| 67.1 | 900 | 0.0020 | 0.22 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 100.5 | 1,000 | Total | | | |

## Subcatchment 2S: EX 2



## Summary for Subcatchment 3S: EX 3

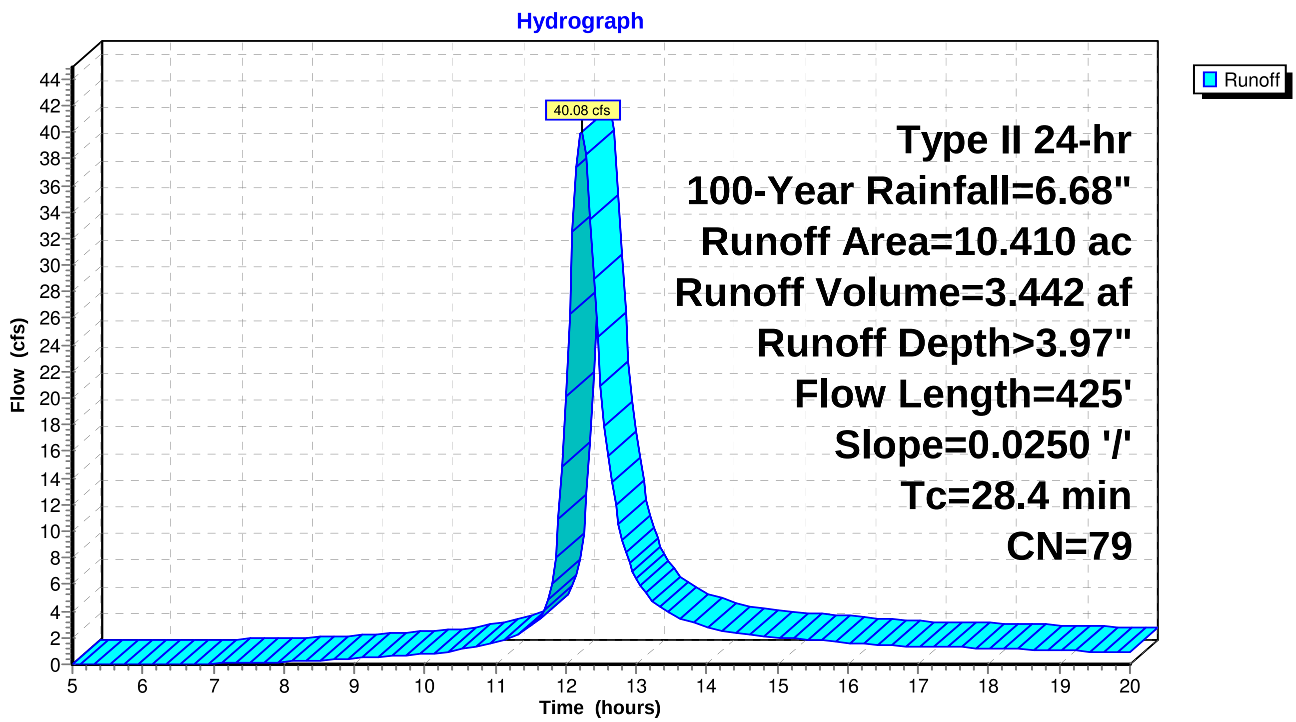
Runoff = 40.08 cfs @ 12.22 hrs, Volume= 3.442 af, Depth> 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| Area (ac) | CN | Description |
|---|---|---|
| 10.410 | 79 | Woods, Fair, HSG D |
| 10.410 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 21.5 | 100 | 0.0250 | 0.08 | | **Sheet Flow, Sheet** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 6.9 | 325 | 0.0250 | 0.79 | | **Shallow Concentrated Flow, Shallow** Woodland Kv= 5.0 fps |
| 28.4 | 425 | Total | | | |

### Subcatchment 3S: EX 3



## Summary for Subcatchment 4S: EX 4

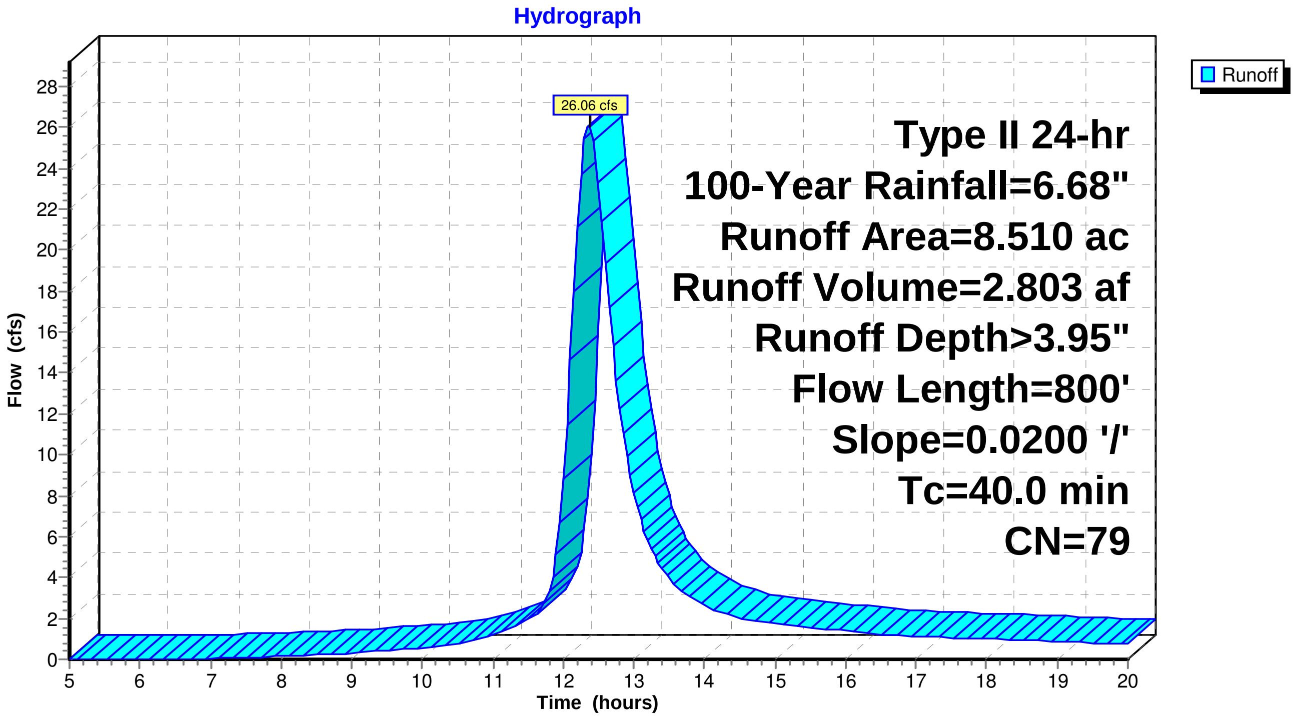
Runoff = 26.06 cfs @ 12.36 hrs, Volume= 2.803 af, Depth> 3.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| Area (ac) | CN | Description |
|---|---|---|
| 8.510 | 79 | Woods, Fair, HSG D |
| 8.510 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 23.5 | 100 | 0.0200 | 0.07 | | **Sheet Flow, Sheet**<br>Woods: Light underbrush n= 0.400 P2= 2.67" |
| 16.5 | 700 | 0.0200 | 0.71 | | **Shallow Concentrated Flow, Shallow**<br>Woodland Kv= 5.0 fps |
| 40.0 | 800 | Total | | | |

## Subcatchment 4S: EX 4



# Appendix B

# Proposed Conditions Drainage Map and HydroCAD Report

POST-DEVELOPMENT WATERSHEDS:

AREA P1:
5.11 ACRES PERVIOUS

AREA P2:
3.87 ACRES PERVIOUS

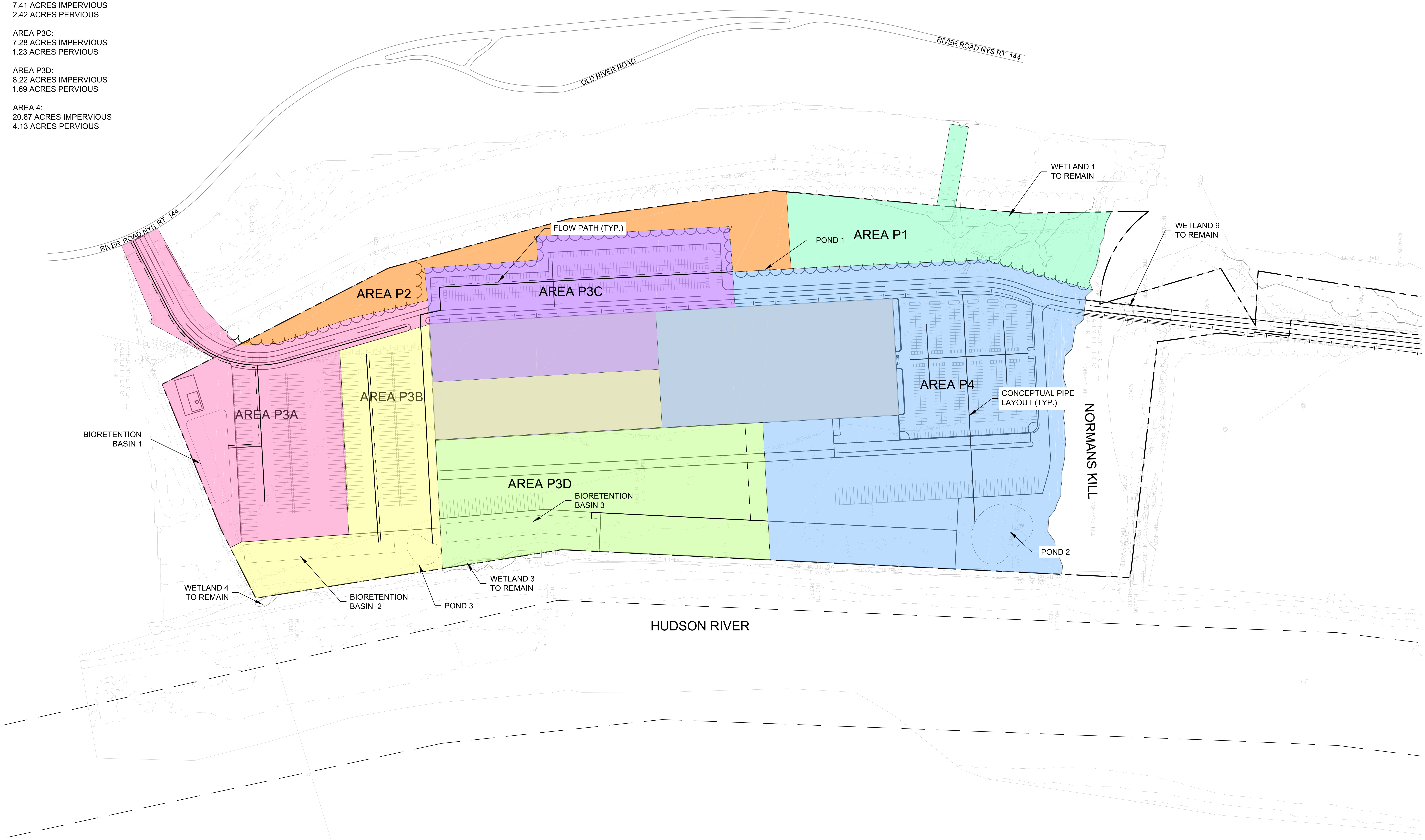
AREA P3A:
5.85 ACRES IMPERVIOUS
3.37 ACRES PERVIOUS

AREA P3B:
7.41 ACRES IMPERVIOUS
2.42 ACRES PERVIOUS

AREA P3C:
7.28 ACRES IMPERVIOUS
1.23 ACRES PERVIOUS

AREA P3D:
8.22 ACRES IMPERVIOUS
1.69 ACRES PERVIOUS

AREA 4:
20.87 ACRES IMPERVIOUS
4.13 ACRES PERVIOUS




0 150 300 450 FT
SCALE


McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com


PROJECT MILESTONE
CONCEPT SITE PLAN

| NO. | DATE | DESCRIPTION |
|---|---|---|

CLIENT:
ALBANY PORT DISTRICT COMMISSION
BETHLEHEM, NEW YORK

PROJECT:
PORT OF ALBANY EXPANSION

| | |
|---|---|
| DRAWN | NSO |
| DESIGNED | NSO |
| CHECKED | -- |
| SCALE | 1"=150' |
| DATE | MAY 2019 |
| PROJECT | 18437.00 |



DRAWING TITLE
PROPOSED DRAINAGE CONDITIONS

DRAWING NUMBER
D-02

---- OF ----

## Summary for Subcatchment 1S: PROP 1

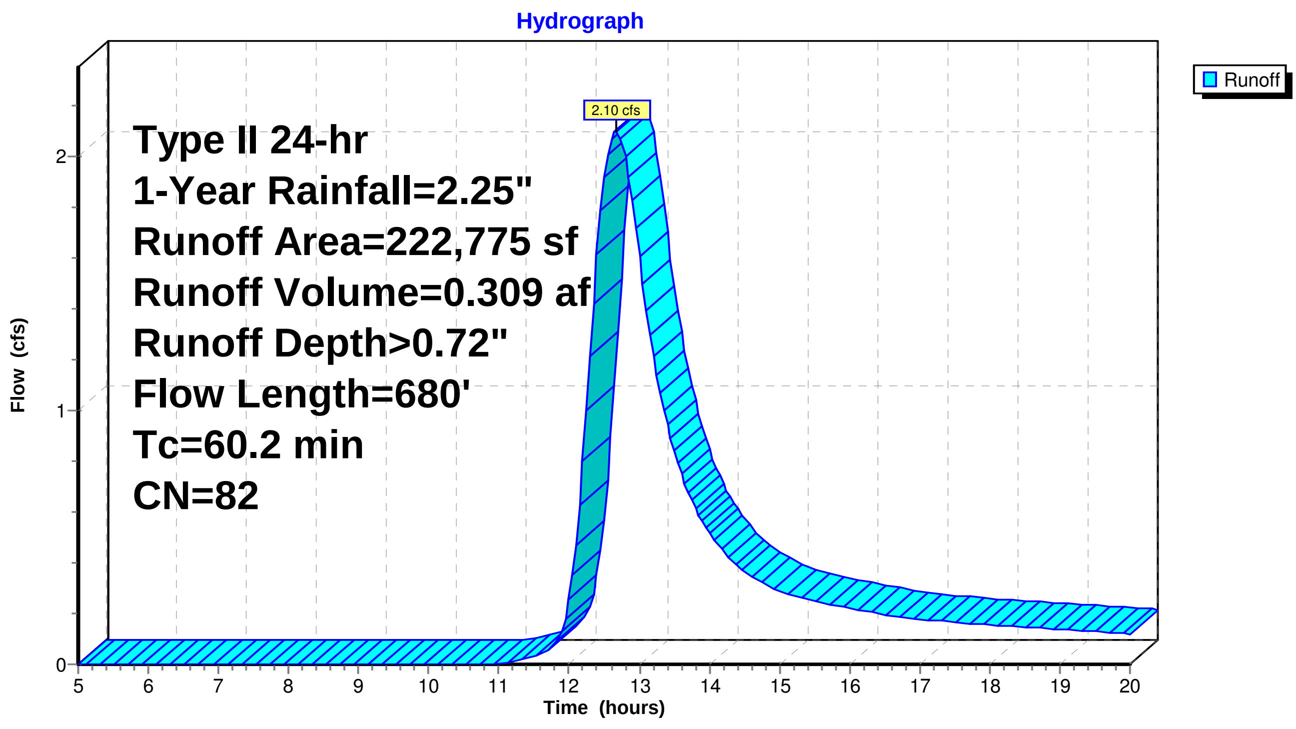
Runoff = 2.10 cfs @ 12.66 hrs, Volume= 0.309 af, Depth> 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| Area (sf) | CN | Description |
|---|---|---|
| 222,775 | 82 | Woods/grass comb., Fair, HSG D |
| 222,775 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 40.9 | 100 | 0.0050 | 0.04 | | **Sheet Flow, Sheet - Woods** Woods: Light underbrush n= 0.400 P2= 2.67" |
| 19.3 | 580 | 0.0100 | 0.50 | | **Shallow Concentrated Flow, Shallow - Woods** Woodland Kv= 5.0 fps |
| 60.2 | 680 | Total | | | |

## Subcatchment 1S: PROP 1



## Summary for Subcatchment 2S: PROP 2

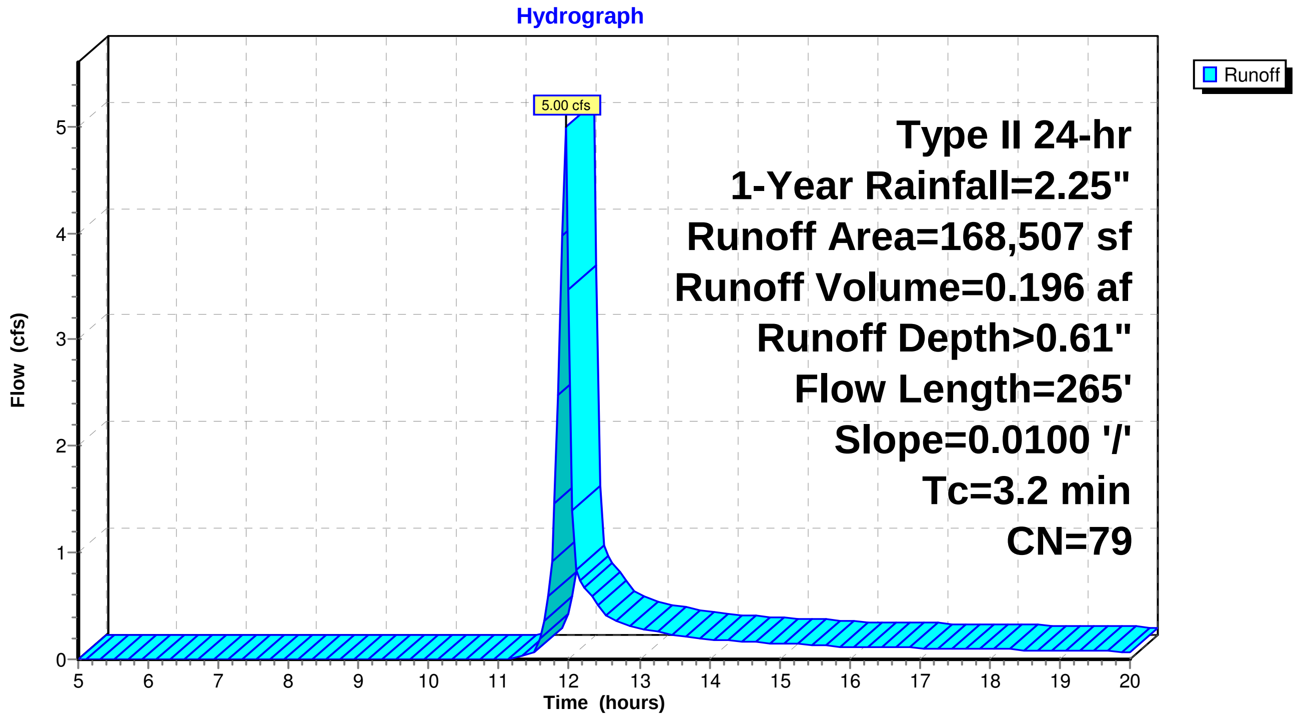
Runoff = 5.00 cfs @ 11.95 hrs, Volume= 0.196 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| Area (sf) | CN | Description |
|---|---|---|
| 168,507 | 79 | Woods, Fair, HSG D |
| 168,507 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.8 | 100 | 0.0100 | 0.95 | | **Sheet Flow, Sheet - Asphalt** Smooth surfaces n= 0.011 P2= 2.67" |
| 1.4 | 165 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Shallow - Asphalt** Paved Kv= 20.3 fps |
| 3.2 | 265 | Total | | | |

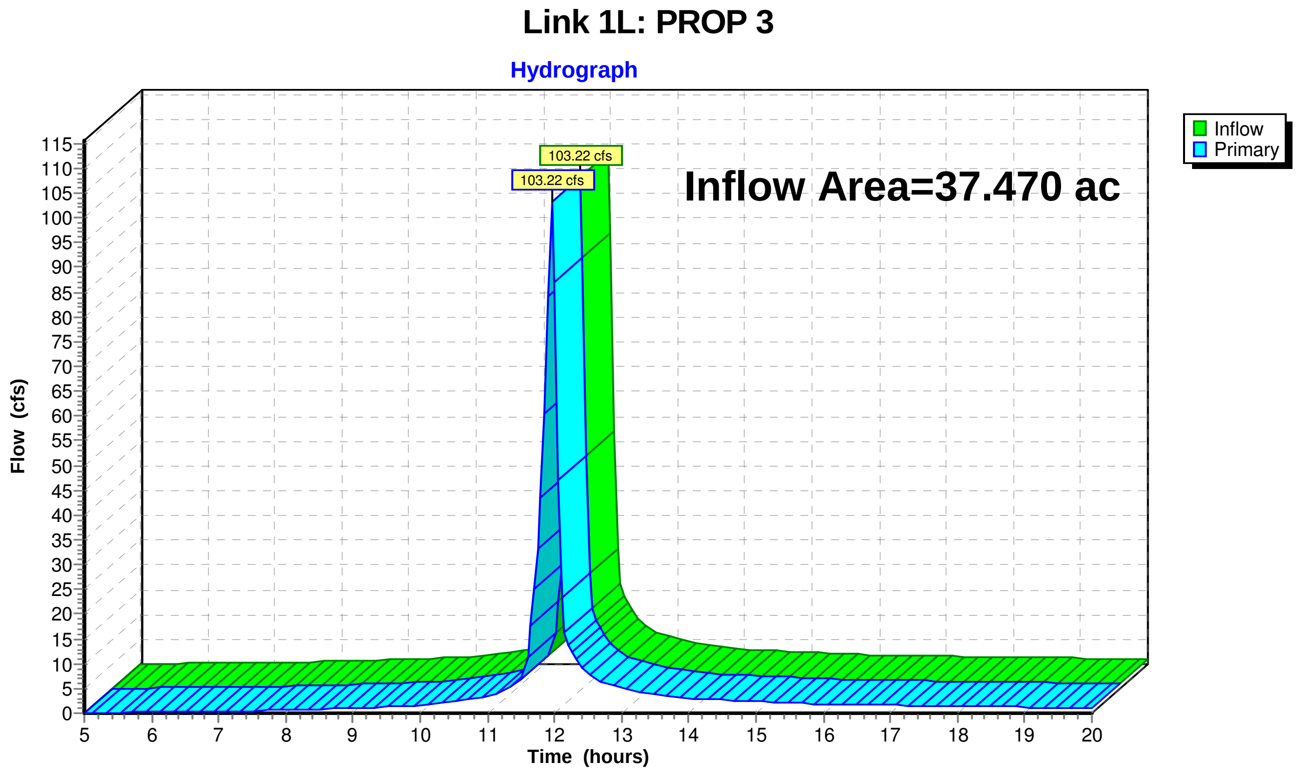
## Subcatchment 2S: PROP 2



## Summary for Link 1L: PROP 3

Inflow Area = 37.470 ac, 76.75% Impervious, Inflow Depth > 1.51" for 1-Year event
Inflow = 103.22 cfs @ 11.95 hrs, Volume= 4.720 af
Primary = 103.22 cfs @ 11.95 hrs, Volume= 4.720 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



## Summary for Subcatchment 7S: PROP 4

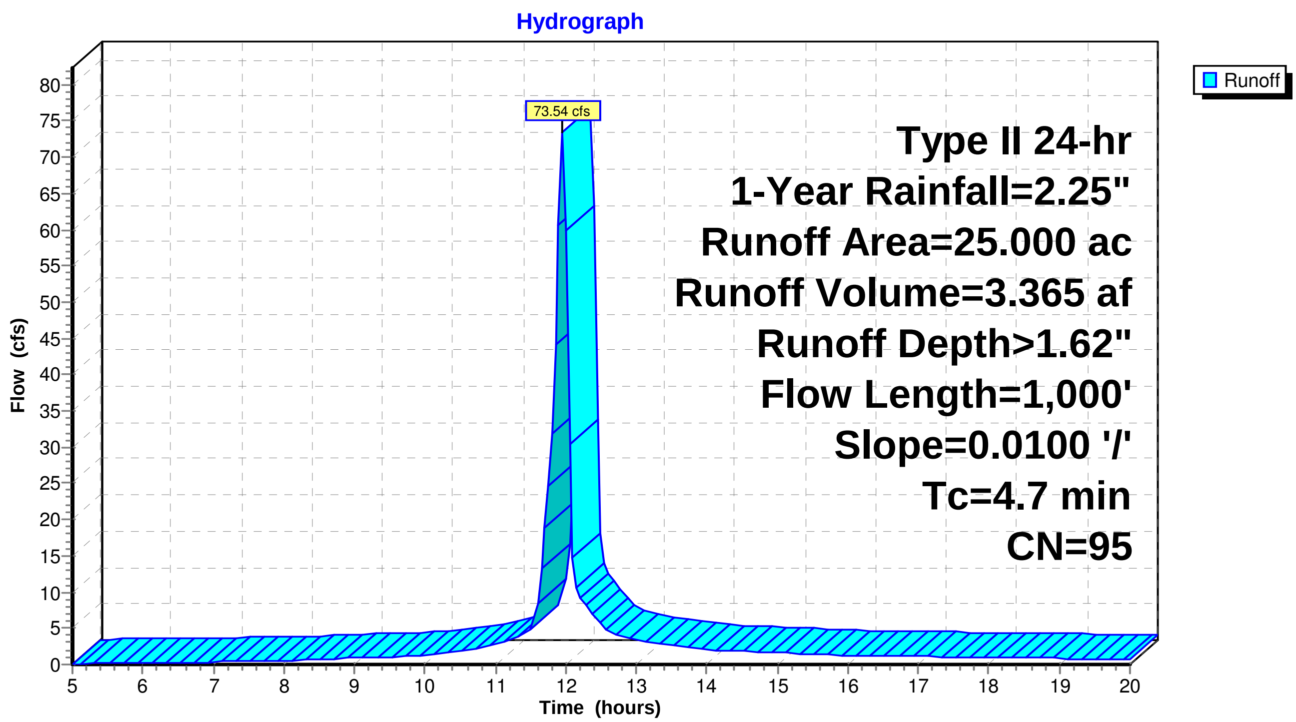
Runoff = 73.54 cfs @ 11.95 hrs, Volume= 3.365 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.25"

| | Area (ac) | CN | Description |
|---|---|---|---|
| * | 20.870 | 98 | Impervious |
| | 4.130 | 80 | >75% Grass cover, Good, HSG D |
| | 25.000 | 95 | Weighted Average |
| | 4.130 | | 16.52% Pervious Area |
| | 20.870 | | 83.48% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.8 | 100 | 0.0100 | 0.95 | | **Sheet Flow, Sheet Flow - Asphalt** Smooth surfaces n= 0.011 P2= 2.67" |
| 1.2 | 150 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Shallow concentrated** Paved Kv= 20.3 fps |
| 1.7 | 750 | 0.0100 | 7.20 | 22.62 | **Pipe Channel, Pipe Flow** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior |
| 4.7 | 1,000 | Total | | | |

## Subcatchment 7S: PROP 4



## Summary for Subcatchment 1S: PROP 1

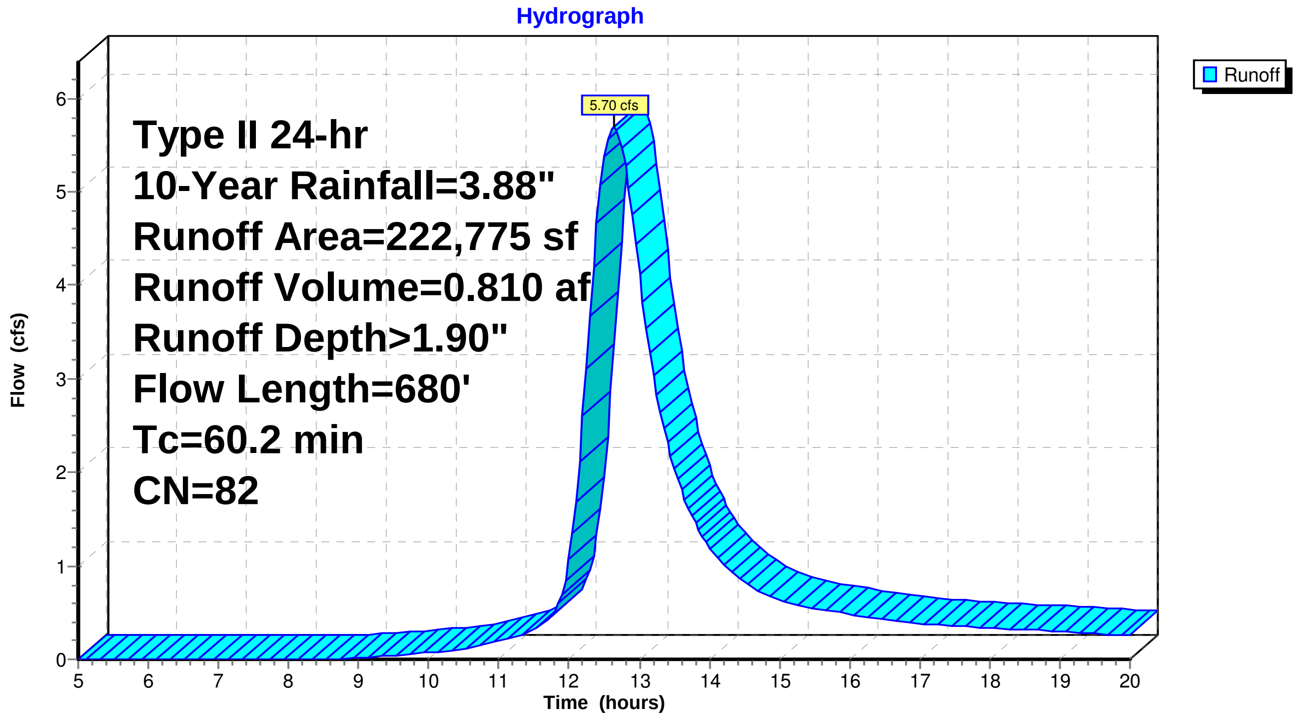
Runoff = 5.70 cfs @ 12.64 hrs, Volume= 0.810 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| Area (sf) | CN | Description |
|---|---|---|
| 222,775 | 82 | Woods/grass comb., Fair, HSG D |
| 222,775 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 40.9 | 100 | 0.0050 | 0.04 | | **Sheet Flow, Sheet - Woods**<br>Woods: Light underbrush n= 0.400 P2= 2.67" |
| 19.3 | 580 | 0.0100 | 0.50 | | **Shallow Concentrated Flow, Shallow - Woods**<br>Woodland Kv= 5.0 fps |
| 60.2 | 680 | Total | | | |

### Subcatchment 1S: PROP 1



## Summary for Subcatchment 2S: PROP 2

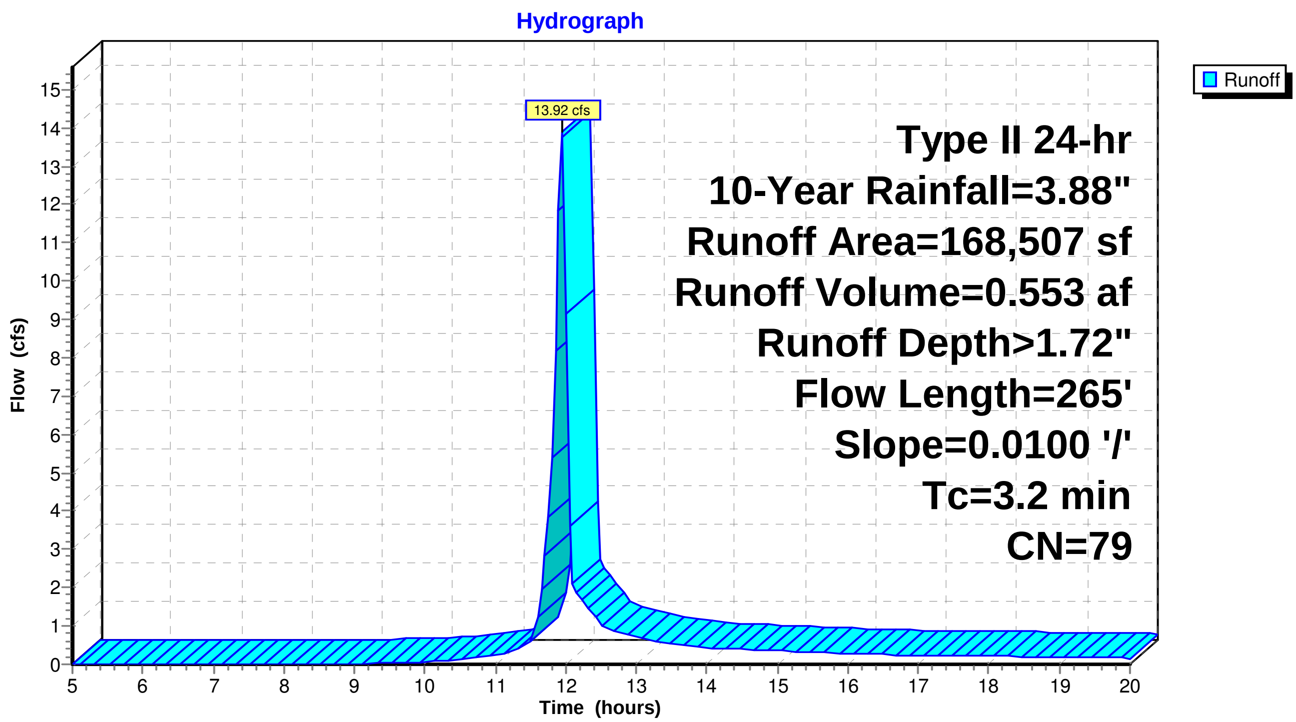
Runoff = 13.92 cfs @ 11.94 hrs, Volume= 0.553 af, Depth> 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| Area (sf) | CN | Description |
|---|---|---|
| 168,507 | 79 | Woods, Fair, HSG D |
| 168,507 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.8 | 100 | 0.0100 | 0.95 | | **Sheet Flow, Sheet - Asphalt**<br>Smooth surfaces n= 0.011 P2= 2.67" |
| 1.4 | 165 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Shallow - Asphalt**<br>Paved Kv= 20.3 fps |
| 3.2 | 265 | Total | | | |

### Subcatchment 2S: PROP 2

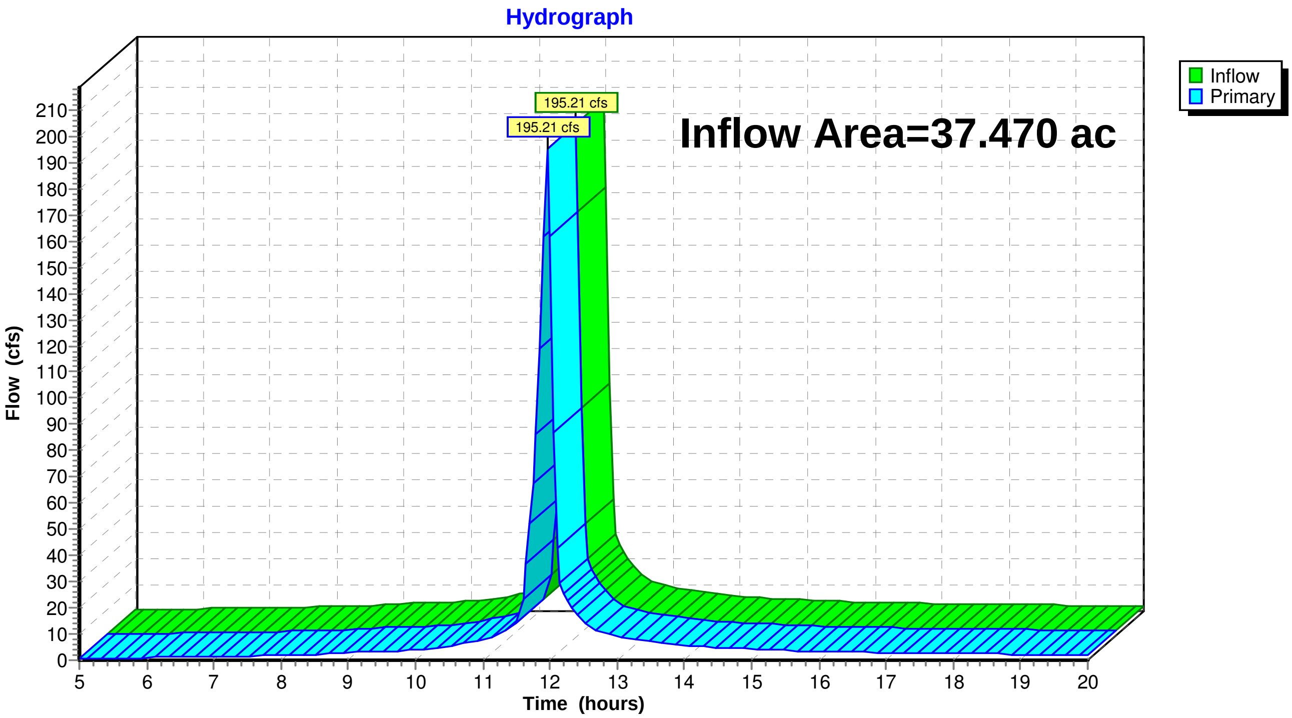


## Summary for Link 1L: PROP 3

Inflow Area = 37.470 ac, 76.75% Impervious, Inflow Depth > 2.98" for 10-Year event
Inflow = 195.21 cfs @ 11.95 hrs, Volume= 9.312 af
Primary = 195.21 cfs @ 11.95 hrs, Volume= 9.312 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

### Link 1L: PROP 3



## Summary for Subcatchment 7S: PROP 4

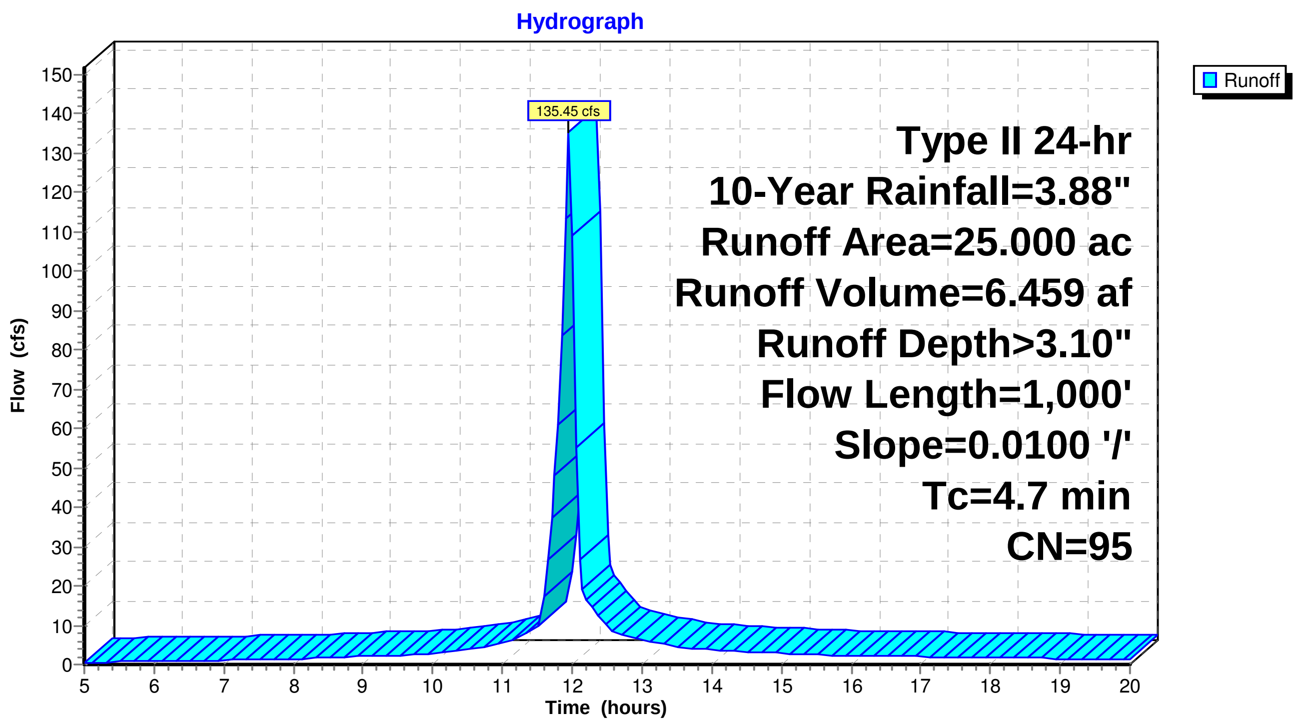
Runoff = 135.45 cfs @ 11.95 hrs, Volume= 6.459 af, Depth> 3.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.88"

| | Area (ac) | CN | Description |
|---|---|---|---|
| * | 20.870 | 98 | Impervious |
| | 4.130 | 80 | >75% Grass cover, Good, HSG D |
| | 25.000 | 95 | Weighted Average |
| | 4.130 | | 16.52% Pervious Area |
| | 20.870 | | 83.48% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.8 | 100 | 0.0100 | 0.95 | | **Sheet Flow, Sheet Flow - Asphalt** Smooth surfaces n= 0.011 P2= 2.67" |
| 1.2 | 150 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Shallow concentrated** Paved Kv= 20.3 fps |
| 1.7 | 750 | 0.0100 | 7.20 | 22.62 | **Pipe Channel, Pipe Flow** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior |
| 4.7 | 1,000 | Total | | | |

## Subcatchment 7S: PROP 4



## Summary for Subcatchment 1S: PROP 1

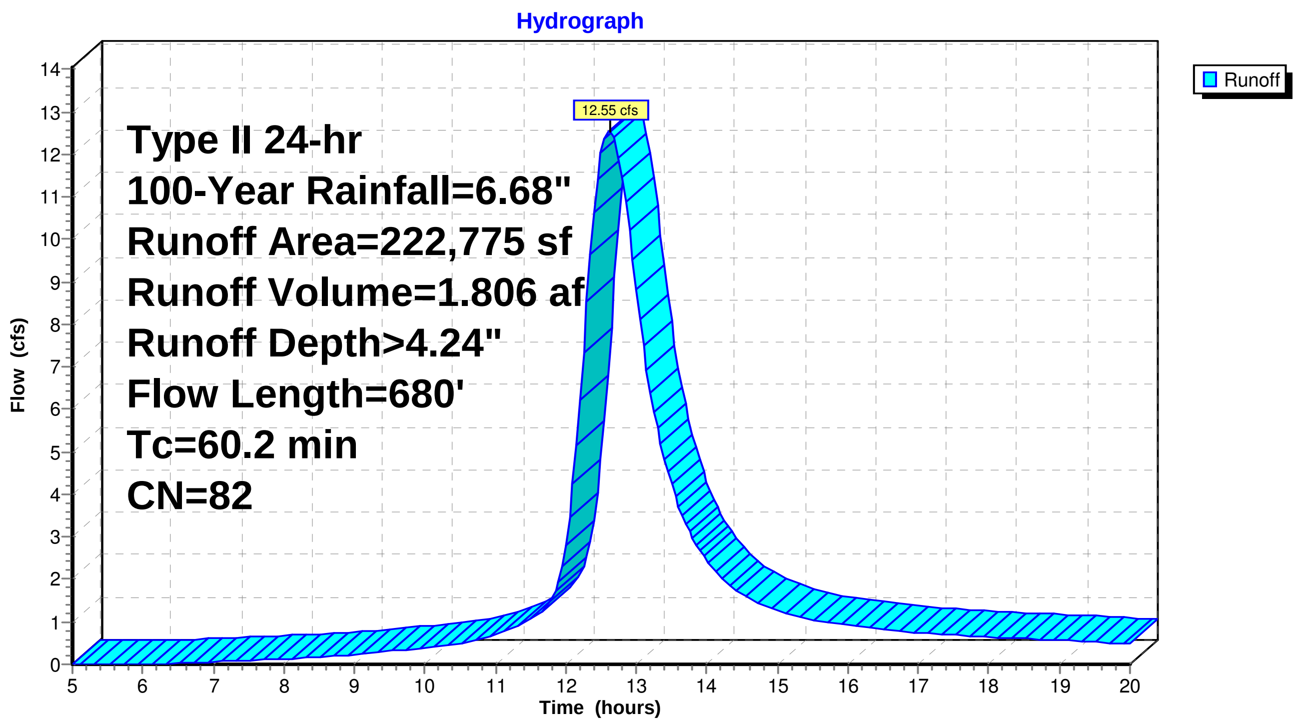
Runoff = 12.55 cfs @ 12.62 hrs, Volume= 1.806 af, Depth> 4.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| Area (sf) | CN | Description |
|---|---|---|
| 222,775 | 82 | Woods/grass comb., Fair, HSG D |
| 222,775 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 40.9 | 100 | 0.0050 | 0.04 | | **Sheet Flow, Sheet - Woods**<br>Woods: Light underbrush n= 0.400 P2= 2.67" |
| 19.3 | 580 | 0.0100 | 0.50 | | **Shallow Concentrated Flow, Shallow - Woods**<br>Woodland Kv= 5.0 fps |
| 60.2 | 680 | Total | | | |

## Subcatchment 1S: PROP 1



## Summary for Subcatchment 2S: PROP 2

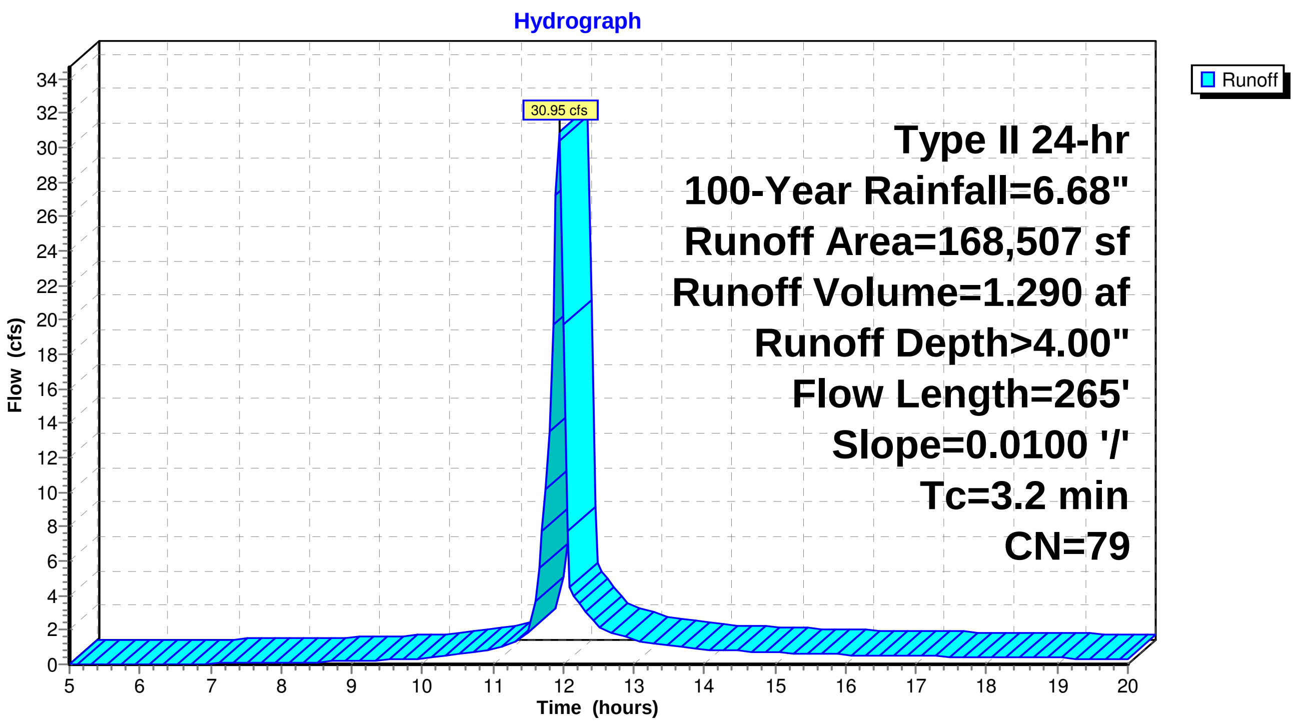
Runoff = 30.95 cfs @ 11.94 hrs, Volume= 1.290 af, Depth> 4.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| Area (sf) | CN | Description |
|---|---|---|
| 168,507 | 79 | Woods, Fair, HSG D |
| 168,507 | | 100.00% Pervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.8 | 100 | 0.0100 | 0.95 | | **Sheet Flow, Sheet - Asphalt**<br>Smooth surfaces n= 0.011 P2= 2.67" |
| 1.4 | 165 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Shallow - Asphalt**<br>Paved Kv= 20.3 fps |
| 3.2 | 265 | Total | | | |

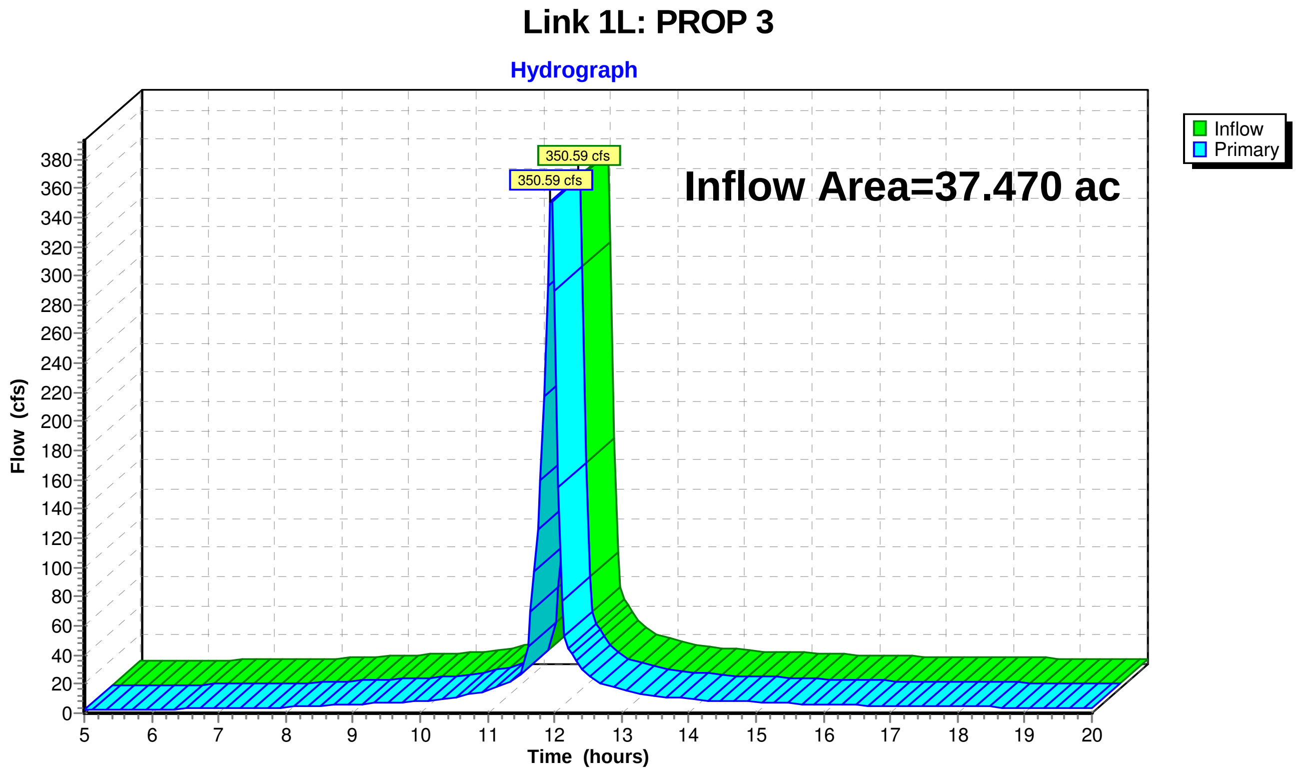
### Subcatchment 2S: PROP 2



## Summary for Link 1L: PROP 3

Inflow Area = 37.470 ac, 76.75% Impervious, Inflow Depth > 5.53" for 100-Year event
Inflow = 350.59 cfs @ 11.95 hrs, Volume= 17.280 af
Primary = 350.59 cfs @ 11.95 hrs, Volume= 17.280 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



## Summary for Subcatchment 7S: PROP 4

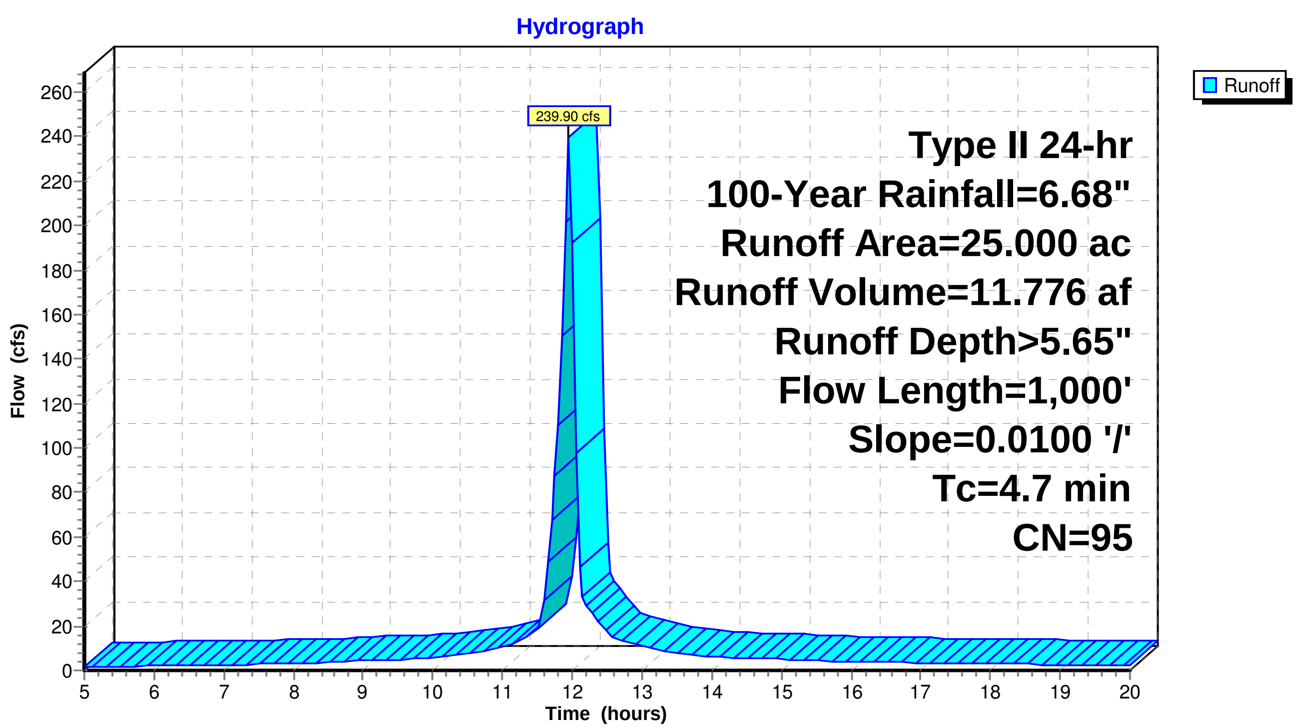
Runoff = 239.90 cfs @ 11.95 hrs, Volume= 11.776 af, Depth> 5.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=6.68"

| | Area (ac) | CN | Description |
|---|---|---|---|
| * | 20.870 | 98 | Impervious |
| | 4.130 | 80 | >75% Grass cover, Good, HSG D |
| | 25.000 | 95 | Weighted Average |
| | 4.130 | | 16.52% Pervious Area |
| | 20.870 | | 83.48% Impervious Area |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description |
|---|---|---|---|---|---|
| 1.8 | 100 | 0.0100 | 0.95 | | **Sheet Flow, Sheet Flow - Asphalt**<br>Smooth surfaces n= 0.011 P2= 2.67" |
| 1.2 | 150 | 0.0100 | 2.03 | | **Shallow Concentrated Flow, Shallow concentrated**<br>Paved Kv= 20.3 fps |
| 1.7 | 750 | 0.0100 | 7.20 | 22.62 | **Pipe Channel, Pipe Flow**<br>24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50'<br>n= 0.013 Corrugated PE, smooth interior |
| 4.7 | 1,000 | Total | | | |

## Subcatchment 7S: PROP 4



# Appendix C

# Water Quality and Runoff Reduction Volume Calculations

Version 1.6 | Total Water Quality Volume Calculation
Last Updated: 03/28/2014 | WQv(acre-feet) = [(P)(Rv)(A)] /12

| | |
|---|---|
| Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?............................................................................. | No |

| | | | |
|---|---|---|---|
| Design Point: | 1 | | *Manually enter P, Total Area and Impervious Cover.* |
| P= | 1.20 | *inch* | |

**Breakdown of Subcatchments**

| Catchment Number | Total Area *(Acres)* | Impervious Area *(Acres)* | Percent Impervious *%* | Rv | WQv *(ft $^3$ )* | Description |
|---|---|---|---|---|---|---|
| 1 | 9.22 | 5.85 | 63% | 0.62 | 24,943 | 3a |
| 2 | 9.83 | 7.41 | 75% | 0.73 | 31,191 | 3b |
| 3 | 8.51 | 7.28 | 86% | 0.82 | 30,394 | 3c |
| 4 | 9.91 | 8.22 | 83% | 0.80 | 34,384 | 3d |
| 5 | 25.00 | 20.87 | 83% | 0.80 | 87,264 | p4 |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| Subtotal (1-30) | 62.47 | 49.63 | 79% | 0.76 | **208,176** | **Subtotal 1** |
| **Total** | 62.47 | 49.63 | 79% | 0.76 | **208,176** | **Initial WQv** |

**Identify Runoff Reduction Techniques By Area**

| Technique | Total Contributing Area *(Acre)* | Contributing Impervious Area *(Acre)* | Notes |
|---|---|---|---|
| Conservation of Natural Areas | 0.00 | 0.00 | *minimum 10,000 sf* |
| Riparian Buffers | 0.00 | 0.00 | *maximum contributing length 75 feet to 150 feet* |
| Filter Strips | 0.00 | 0.00 | |
| Tree Planting | 0.00 | 0.00 | *Up to 100 sf directly connected impervious area may be subtracted per tree* |
| **Total** | **0.00** | **0.00** | |

**Recalculate WQv after application of Area Reduction Techniques**

| | Total Area *(Acres)* | Impervious Area *(Acres)* | Percent Impervious *%* | Runoff Coefficient Rv | WQv *(ft $^3$ )* |
|---|---|---|---|---|---|
| "<<Initial WQv" | 62.47 | 49.63 | 79% | 0.76 | 208,176 |
| Subtract Area | 0.00 | 0.00 | | | |
| WQv adjusted after Area Reductions | **62.47** | **49.63** | 79% | 0.76 | 208,176 |
| Disconnection of Rooftops | | 0.00 | | | |
| Adjusted WQv after Area Reduction and Rooftop Disconnect | 62.47 | 49.63 | 79% | 0.76 | **208,176** |
| WQv reduced by Area Reduction techniques | | | | | 0 |

| Runoff Reduction Volume and Treated volumes | | | | | | |
|---|---|---|---|---|---|---|
| | **Runoff Reduction Techiques/Standard SMPs** | | **Total Contributing Area** | **Total Contributing Impervious Area** | **WQv Reduced (RRv)** | **WQv Treated** |
| | | | **(acres)** | **(acres)** | **cf** | **cf** |
| Area/Volume Reduction | Conservation of Natural Areas | RR-1 | 0.00 | 0.00 | | |
| | Sheetflow to Riparian Buffers/Filter Strips | RR-2 | 0.00 | 0.00 | | |
| | Tree Planting/Tree Pit | RR-3 | 0.00 | 0.00 | | |
| | Disconnection of Rooftop Runoff | RR-4 | | 0.00 | | |
| | Vegetated Swale | RR-5 | 0.00 | 0.00 | 0 | |
| | Rain Garden | RR-6 | 0.00 | 0.00 | 0 | |
| | Stormwater Planter | RR-7 | 0.00 | 0.00 | 0 | |
| | Rain Barrel/Cistern | RR-8 | 0.00 | 0.00 | 0 | |
| | Porous Pavement | RR-9 | 0.00 | 0.00 | 0 | |
| | Green Roof (Intensive & Extensive) | RR-10 | 0.00 | 0.00 | 0 | |
| Standard SMPs w/RRv Capacity | Infiltration Trench | I-1 | 0.00 | 0.00 | 0 | 0 |
| | Infiltration Basin | I-2 | 0.00 | 0.00 | 0 | 0 |
| | Dry Well | I-3 | 0.00 | 0.00 | 0 | 0 |
| | Underground Infiltration System | I-4 | 0.00 | | | |
| | Bioretention & Infiltration Bioretention | F-5 | 28.96 | 21.48 | 41220 | 49298 |
| | Dry swale | O-1 | 0.00 | 0.00 | 0 | 0 |
| Standard SMPs | Micropool Extended Detention (P-1) | P-1 | | | | |
| | Wet Pond (P-2) | P-2 | | | | 25000.000 |
| | Wet Extended Detention (P-3) | P-3 | | | | 100425.000 |
| | Multiple Pond system (P-4) | P-4 | | | | |
| | Pocket Pond (p-5) | P-5 | | | | |
| | Surface Sand filter (F-1) | F-1 | | | | |
| | Underground Sand filter (F-2) | F-2 | | | | |
| | Perimeter Sand Filter (F-3) | F-3 | | | | |
| | Organic Filter (F-4 | F-4 | | | | |
| | Shallow Wetland (W-1) | W-1 | | | | |
| | Extended Detention Wetland (W-2 | W-2 | | | | |
| | Pond/Wetland System (W-3) | W-3 | | | | |
| | Pocket Wetland (W-4) | W-4 | | | | |
| | Wet Swale (O-2) | O-2 | | | | |
| | Totals by Area Reduction | → | 0.00 | 0.00 | 0 | |
| | Totals by Volume Reduction | → | 0.00 | 0.00 | 0 | |
| | Totals by Standard SMP w/RRV | → | 28.96 | 21.48 | 41220 | 49298 |
| | Totals by Standard SMP | → | 0.00 | 0.00 | | 125425 |
| | Totals ( Area + Volume + all SMPs) | → | 28.96 | 21.48 | 41,221 | 174,723 |
| | Impervious Cover √ | error | | | | |

# Minimum RRv

| Enter the Soils Data for the site | | |
|---|---|---|
| Soil Group | Acres | S |
| A | | 55% |
| B | | 40% |
| C | | 30% |
| D | **63.95** | 20% |
| Total Area | 63.95 | |
| **Calculate the Minimum RRv** | | |
| S = | **0.20** | |
| Impervious = | 49.63 | *acre* |
| Precipitation | 1.2 | *in* |
| Rv | 0.95 | |
| **Minimum RRv** | **41,076** | ***ft3*** |
| | 0.94 | af |

# NOI QUESTIONS

| # | NOI Question | Reported Value | |
|---|---|---|---|
| | | cf | af |
| 28 | Total Water Quality Volume (WQv) Required | 208176 | *4.779* |
| 30 | Total RRV Provided | 41221 | *0.946* |
| 31 | Is RRv Provided ≥WQv Required? | No | |
| 32 | Minimum RRv | 41076 | *0.943* |
| 32a | Is RRv Provided ≥ Minimum RRv Required? | Yes | |
| | | | |
| 33a | Total WQv Treated | 174723 | *4.011* |
| 34 | Sum of Volume Reduced & Treated | 215944 | *4.957* |
| 34 | Sum of Volume Reduced and Treated | 215944 | *4.957* |
| 35 | Is Sum RRv Provided and WQv Provided ≥WQv Required? | Yes | |

| Apply Peak Flow Attenuation | | | |
|---|---|---|---|
| 36 | Channel Protection | *Cpv* | |
| 37 | Overbank | *Qp* | |
| 37 | Extreme Flood Control | *Qf* | |
| | Are Quantity Control requirements met? | *Yes* | Plan Completed |

# Planning

| Practice | Description | Application |
|---|---|---|
| **Preservation of Undisturbed Areas** | Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain. | Considered & Applied |
| **Preservation of Buffers** | Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands. | Considered & Applied |
| **Reduction of Clearing and Grading** | Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities. | Considered & Applied |
| **Locating Development in Less Sensitive Areas** | Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact. | Considered & Not Applied |
| **Open Space Design** | Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources. | Considered & Applied |
| **Soil Restoration** | Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.<br>***Treat compacted areas as impervious cover in WQv Calculation Worksheet and modify curve number as specified in Section 5.1.6, page 5-21*** | Considered & Not Applied |
| **Roadway Reduction** | Minimize roadway widths and lengths to reduce site impervious area | Considered & Applied |
| **Sidewalk Reduction** | Minimize sidewalk lengths and widths to reduce site impervious area | Considered & Applied |
| **Driveway Reduction** | Minimize driveway lengths and widths to reduce site impervious area | Considered & Applied |
| **Cul-de-sac Reduction** | Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover. | Considered & Applied |
| **Building Footprint Reduction** | Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio. | Considered & Applied |
| **Parking Reduction** | Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate. | Considered & Applied |

# Bioretention Worksheet

***(For use on HSG C or D Soils with underdrains)***

**Af=WQv*(df)/[k*(hf+df)(tf)]**

| | |
|---|---|
| *Af* | Required Surface Area (ft2) |
| *WQv* | Water Quality Volume (ft3) |
| *df* | Depth of the Soil Medium (feet) |
| *hf* | Average height of water above the planter bed |
| *tf* | Volume Through the Filter Media (days) |

*k* The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

| **Design Point:** | **1** |
|---|---|

| **Enter Site Data For Drainage Area to be Treated by Practice** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Catchment Number** | **Total Area** *(Acres)* | **Impervious Area** *(Acres)* | **Percent Impervious** *%* | **Rv** | **WQv** *($ft^3$)* | **Precipitation** *(in)* | **Description** |
| 1 | 9.22 | 5.85 | 0.63 | 0.62 | 24943.11 | 1.20 | 3a |
| Enter Impervious Area Reduced by Disconnection of Rooftops | | 0.00 | 63% | 0.62 | 24,943 | <<WQv after adjusting for Disconnected Rooftops | |
| Enter the portion of the WQv that is not reduced for all practices routed to this practice. | | | | | 0 | *$ft^3$* | |
| **Soil Information** | | | | | | | |
| Soil Group | | D | | | | | |
| Soil Infiltration Rate | | 0.10 | *in/hour* | *Okay* | | | |
| Using Underdrains? | | Yes | *Okay* | | | | |
| **Calculate the Minimum Filter Area** | | | | | | | |
| | | | | Value | | Units | Notes |
| WQv | | | | 24,943 | | *$ft^3$* | |
| Enter Depth of Soil Media | | | *df* | 2.5 | | *ft* | *2.5-4 ft* |
| Enter Hydraulic Conductivity | | | *k* | 0.5 | | *ft/day* | |
| Enter Average Height of Ponding | | | *hf* | 0.5 | | *ft* | *6 inches max.* |
| Enter Filter Time | | | *tf* | 2 | | *days* | |
| **Required Filter Area** | | | ***Af*** | **20786** | | ***$ft^2$*** | |
| **Determine Actual Bio-Retention Area** | | | | | | | |
| Filter Width | | 164 | *ft* | | | | |
| Filter Length | | 164 | *ft* | | | | |
| Filter Area | | 26896 | *$ft^2$* | | | | |
| Actual Volume Provided | | 32275 | *$ft^3$* | | | | |
| **Determine Runoff Reduction** | | | | | | | |
| Is the Bioretention contributing flow to another practice? | | | No | Select Practice | | N/A | |
| RRv | | 12,910 | | | | | |
| **RRv applied** | | **12,910** | ***$ft^3$*** | ***This is 40% of the storage provided or WQv whichever is less.*** | | | |
| Volume Treated | | 12,033 | *$ft^3$* | *This is the portion of the WQv that is not reduced in the practice.* | | | |
| Volume Directed | | 0 | *$ft^3$* | This volume is directed another practice | | | |

# Bioretention Worksheet

| | | | |
|---|---|---|---|
| Sizing √ | OK | | *Check to be sure Area provided ≥ Af* |

***(For use on HSG C or D Soils with underdrains)***

**Af=WQv*(df)/[k*(hf+df)(tf)]**

| | |
|---|---|
| *Af* | Required Surface Area (ft2) |
| *WQv* | Water Quality Volume (ft3) |
| *df* | Depth of the Soil Medium (feet) |
| *hf* | Average height of water above the planter bed |
| *tf* | Volume Through the Filter Media (days) |

*k* The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor & Schueler, 1996)

| **Design Point:** | **1** |
|---|---|

| **Enter Site Data For Drainage Area to be Treated by Practice** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Catchment Number** | **Total Area** *(Acres)* | **Impervious Area** *(Acres)* | **Percent Impervious** *%* | **Rv** | **WQv** *(ft³)* | **Precipitation** *(in)* | **Description** |
| 2 | 9.83 | 7.41 | 0.75 | 0.73 | 31191.14 | 1.20 | 3b |
| Enter Impervious Area Reduced by Disconnection of Rooftops | | 0.00 | 75% | 0.73 | 31,191 | <<WQv after adjusting for Disconnected Rooftops | |
| Enter the portion of the WQv that is not reduced for all practices routed to this practice. | | | | | 0 | *ft³* | |
| **Soil Information** | | | | | | | |
| Soil Group | | D | | | | | |
| Soil Infiltration Rate | | 0.10 | *in/hour* | *Okay* | | | |
| Using Underdrains? | | Yes | *Okay* | | | | |
| **Calculate the Minimum Filter Area** | | | | | | | |
| | | | | Value | | Units | Notes |
| WQv | | | | 31,191 | | *ft³* | |
| Enter Depth of Soil Media | | | *df* | 2.5 | | *ft* | *2.5-4 ft* |
| Enter Hydraulic Conductivity | | | *k* | 0.5 | | *ft/day* | |
| Enter Average Height of Ponding | | | *hf* | 0.5 | | *ft* | *6 inches max.* |
| Enter Filter Time | | | *tf* | 2 | | *days* | |
| **Required Filter Area** | | | ***Af*** | **25993** | | ***ft²*** | |
| **Determine Actual Bio-Retention Area** | | | | | | | |
| Filter Width | | 488 | *ft* | | | | |
| Filter Length | | 60 | *ft* | | | | |
| Filter Area | | 29280 | *ft²* | | | | |
| Actual Volume Provided | | 35136 | *ft³* | | | | |
| **Determine Runoff Reduction** | | | | | | | |
| Is the Bioretention contributing flow to another practice? | | | No | Select Practice | | N/A | |
| RRv | | 14,054 | | | | | |
| **RRv applied** | | **14,054** | ***ft³*** | ***This is 40% of the storage provided or WQv whichever is less.*** | | | |
| Volume Treated | | 17,137 | *ft³* | *This is the portion of the WQv that is not reduced in the practice.* | | | |
| Volume Directed | | 0 | *ft³* | This volume is directed another practice | | | |

# Bioretention Worksheet

| | | | |
|---|---|---|---|
| Sizing √ | OK | | *Check to be sure Area provided ≥ Af* |

***(For use on HSG C or D Soils with underdrains)***

**Af=WQv*(df)/[k*(hf+df)(tf)]**

| | |
|---|---|
| *Af* | Required Surface Area (ft2) |
| *WQv* | Water Quality Volume (ft3) |
| *df* | Depth of the Soil Medium (feet) |
| *hf* | Average height of water above the planter bed |
| *tf* | Volume Through the Filter Media (days) |

*k* The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

| **Design Point:** | **1** |
|---|---|

**Enter Site Data For Drainage Area to be Treated by Practice**

| **Catchment Number** | **Total Area** *(Acres)* | **Impervious Area** *(Acres)* | **Percent Impervious** *%* | **Rv** | **WQv** *($ft^3$)* | **Precipitation** *(in)* | **Description** |
|---|---|---|---|---|---|---|---|
| 4 | 9.91 | 8.22 | 0.83 | 0.80 | 34384.09 | 1.20 | 3d |
| Enter Impervious Area Reduced by Disconnection of Rooftops | | 0.00 | 83% | 0.80 | 34,384 | <<WQv after adjusting for Disconnected Rooftops | |
| Enter the portion of the WQv that is not reduced for all practices routed to this practice. | | | | | 0 | *$ft^3$* | |

**Soil Information**

| | | | |
|---|---|---|---|
| Soil Group | D | | |
| Soil Infiltration Rate | 0.10 | *in/hour* | *Okay* |
| Using Underdrains? | Yes | *Okay* | |

**Calculate the Minimum Filter Area**

| | | Value | Units | Notes |
|---|---|---|---|---|
| WQv | | 34,384 | *$ft^3$* | |
| Enter Depth of Soil Media | *df* | 2.5 | *ft* | *2.5-4 ft* |
| Enter Hydraulic Conductivity | *k* | 0.5 | *ft/day* | |
| Enter Average Height of Ponding | *hf* | 0.5 | *ft* | *6 inches max.* |
| Enter Filter Time | *tf* | 2 | *days* | |
| **Required Filter Area** | ***Af*** | **28653** | ***$ft^2$*** | |

**Determine Actual Bio-Retention Area**

| | | |
|---|---|---|
| Filter Width | 495 | *ft* |
| Filter Length | 60 | *ft* |
| Filter Area | 29700 | *$ft^2$* |
| Actual Volume Provided | 35640 | *$ft^3$* |

**Determine Runoff Reduction**

| | | | | |
|---|---|---|---|---|
| Is the Bioretention contributing flow to another practice? | | No | Select Practice | N/A |
| RRv | 14,256 | | | |
| **RRv applied** | **14,256** | ***$ft^3$*** | ***This is 40% of the storage provided or WQv whichever is less.*** | |
| Volume Treated | 20,128 | *$ft^3$* | *This is the portion of the WQv that is not reduced in the practice.* | |
| Volume Directed | 0 | *$ft^3$* | This volume is directed another practice | |

# Appendix D

# NRCS Soils Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for

# Albany County, New York


March 25, 2019

# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Contents

# How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

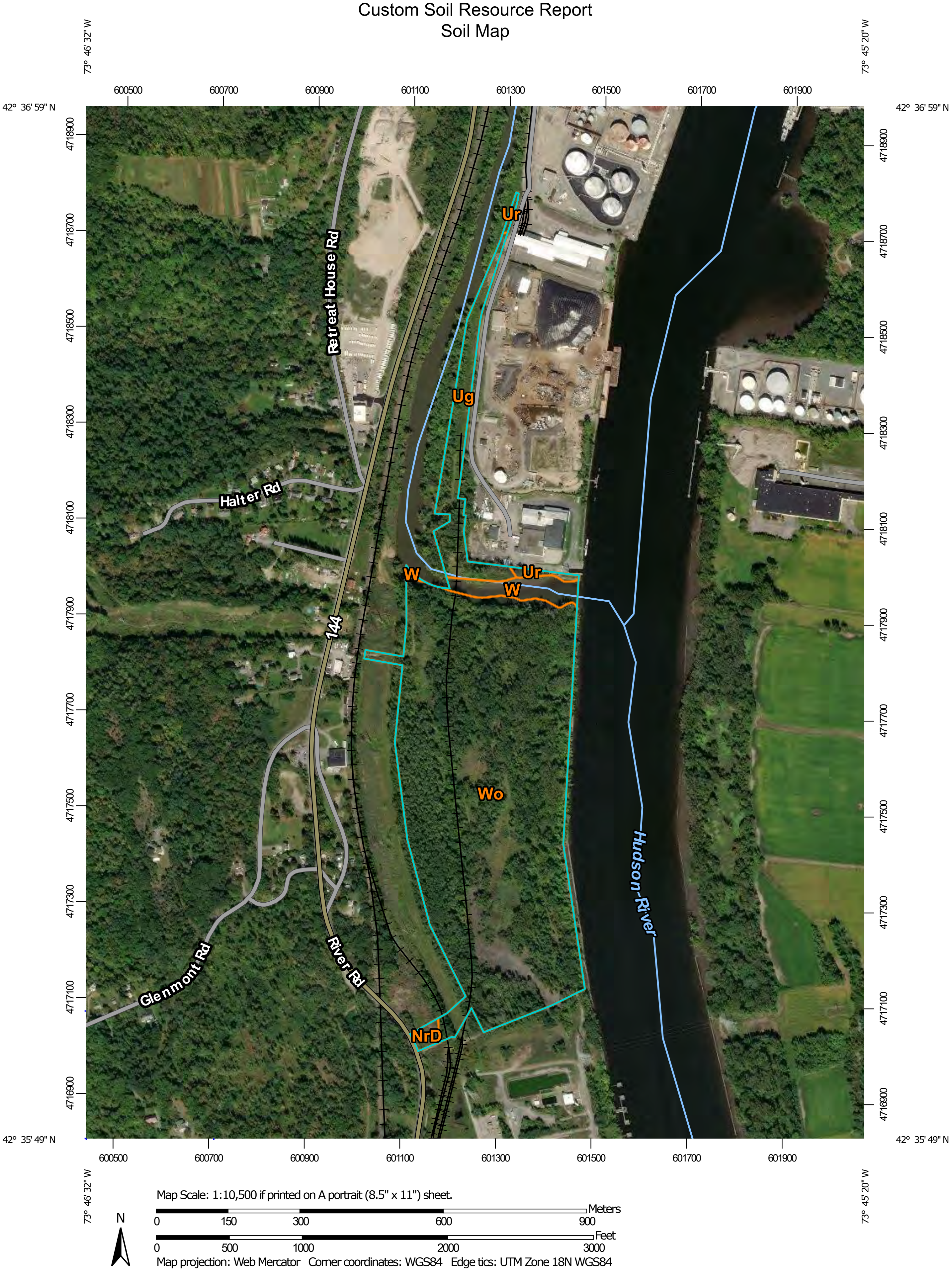
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map


73° 46' 32" W
73° 45' 20" W
42° 36' 59" N
42° 35' 49" N
600500
600700
600900
601100
601300
601500
601700
601900
4718900
4718700
4718500
4718300
4718100
4717900
4717700
4717500
4717300
4717100
4716900
Retreat House Rd
Halter Rd
144
Glenmont Rd
River Rd
Hudson River
Ur
Ug
W
Ur
W
Wo
NrD
N
Map Scale: 1:10,500 if printed on A portrait (8.5" x 11") sheet.
Meters
0
150
300
600
900
Feet
0
500
1000
2000
3000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

**Special Point Features**

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Albany County, New York
Survey Area Data: Version 16, Sep 1, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| NrD | Nassau very channery silt loam, hilly, very rocky | 0.6 | 0.7% |
| Ug | Udorthents, loamy | 7.0 | 8.4% |
| Ur | Urban land | 0.7 | 0.8% |
| W | Water | 2.9 | 3.5% |
| Wo | Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded | 72.2 | 86.6% |
| **Totals for Area of Interest** | | **83.4** | **100.0%** |

# Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Albany County, New York

## NrD—Nassau very channery silt loam, hilly, very rocky

### Map Unit Setting

*National map unit symbol:* 9ph1
*Elevation:* 600 to 1,800 feet
*Mean annual precipitation:* 36 to 41 inches
*Mean annual air temperature:* 45 to 48 degrees F
*Frost-free period:* 100 to 170 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Nassau, hilly, and similar soils:* 70 percent
*Minor components:* 30 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nassau, Hilly

#### Setting

*Landform:* Till plains, ridges, benches
*Landform position (two-dimensional):* Backslope
*Landform position (three-dimensional):* Side slope
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Parent material:* Channery loamy till derived mainly from local slate or shale

#### Typical profile

*H1 - 0 to 8 inches:* very channery silt loam
*H2 - 8 to 16 inches:* very channery silt loam
*H3 - 16 to 20 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 15 to 25 percent
*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock
*Natural drainage class:* Somewhat excessively drained
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Available water storage in profile:* Very low (about 1.6 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 6s
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

### Minor Components

#### Rock outcrop

*Percent of map unit:* 9 percent
*Hydric soil rating:* Unranked

**Manlius**

*Percent of map unit:* 8 percent
*Hydric soil rating:* No

**Unnamed soils**

*Percent of map unit:* 8 percent

**Lordstown**

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

## Ug—Udorthents, loamy

### Map Unit Setting

*National map unit symbol:* 9pj1
*Mean annual precipitation:* 36 to 41 inches
*Mean annual air temperature:* 45 to 48 degrees F
*Frost-free period:* 100 to 170 days
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Udorthents, loamy, and similar soils:* 90 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Udorthents, Loamy

**Typical profile**

*H1 - 0 to 4 inches:* loam
*H2 - 4 to 70 inches:* channery loam

**Properties and qualities**

*Slope:* 0 to 8 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Moderately well drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.06 to 5.95 in/hr)
*Depth to water table:* About 36 to 72 inches
*Frequency of flooding:* None
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 15 percent
*Available water storage in profile:* Low (about 5.5 inches)

### Minor Components

**Unnamed soils**

*Percent of map unit:* 10 percent

## Ur—Urban land

**Map Unit Setting**

*National map unit symbol:* 9pj8
*Mean annual precipitation:* 36 to 41 inches
*Mean annual air temperature:* 45 to 48 degrees F
*Frost-free period:* 100 to 170 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Urban land:* 85 percent
*Minor components:* 15 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Urban Land**

**Typical profile**

*H1 - 0 to 6 inches:* variable

**Minor Components**

**Unnamed soils**

*Percent of map unit:* 10 percent

**Udorthents**

*Percent of map unit:* 5 percent
*Hydric soil rating:* No

## W—Water

**Map Unit Composition**

*Water:* 100 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Wo—Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded

**Map Unit Setting**

*National map unit symbol:* 2srgt
*Elevation:* 160 to 1,970 feet
*Mean annual precipitation:* 31 to 70 inches
*Mean annual air temperature:* 43 to 52 degrees F

*Frost-free period:* 105 to 180 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Wayland and similar soils:* 60 percent
*Wayland, very poorly drained, and similar soils:* 30 percent
*Minor components:* 10 percent
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Wayland**

**Setting**

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Parent material:* Silty and clayey alluvium derived from interbedded sedimentary rock

**Typical profile**

*Ap - 0 to 9 inches:* silt loam
*Bg - 9 to 21 inches:* silt loam
*Cg1 - 21 to 28 inches:* silt loam
*Cg2 - 28 to 47 inches:* silt loam
*Cg3 - 47 to 54 inches:* silt loam
*Cg4 - 54 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 0 to 3 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Poorly drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.14 to 14.17 in/hr)
*Depth to water table:* About 0 to 6 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* None
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Nonsaline (0.0 to 1.9 mmhos/cm)
*Available water storage in profile:* Very high (about 13.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 5w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

**Description of Wayland, Very Poorly Drained**

**Setting**

*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Parent material:* Silty and clayey alluvium derived from interbedded sedimentary rock

**Typical profile**

*A - 0 to 9 inches:* mucky silt loam
*Bg - 9 to 21 inches:* silt loam
*Cg1 - 21 to 28 inches:* silt loam
*Cg2 - 28 to 47 inches:* silt loam
*Cg3 - 47 to 54 inches:* silt loam
*Cg4 - 54 to 60 inches:* silt loam

**Properties and qualities**

*Slope:* 0 to 3 percent
*Depth to restrictive feature:* More than 80 inches
*Natural drainage class:* Very poorly drained
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to high (0.14 to 14.17 in/hr)
*Depth to water table:* About 0 inches
*Frequency of flooding:* Frequent
*Frequency of ponding:* Frequent
*Calcium carbonate, maximum in profile:* 5 percent
*Salinity, maximum in profile:* Nonsaline (0.0 to 1.9 mmhos/cm)
*Available water storage in profile:* Very high (about 13.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 5w
*Hydrologic Soil Group:* B/D
*Hydric soil rating:* Yes

## Minor Components

### Holderton

*Percent of map unit:* 10 percent
*Landform:* Flood plains
*Landform position (three-dimensional):* Tread
*Down-slope shape:* Linear
*Across-slope shape:* Linear
*Hydric soil rating:* No

# Soil Information for All Uses

## Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

## Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

### Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

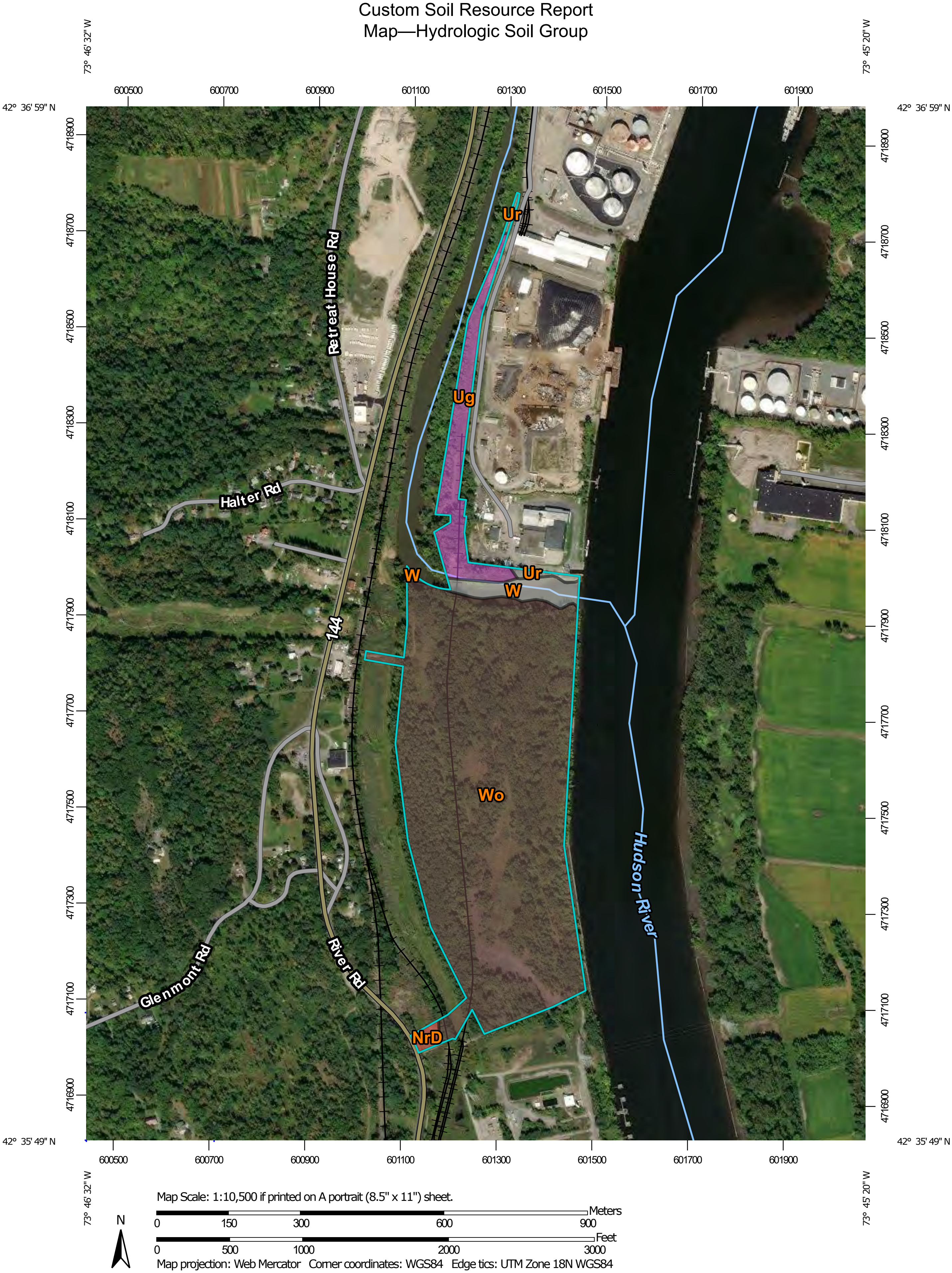
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

# Map—Hydrologic Soil Group



## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Soil Rating Lines**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Soil Rating Points**

A

A/D

B

B/D

C

C/D

D

Not rated or not available

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Albany County, New York
Survey Area Data: Version 16, Sep 1, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 1, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Table—Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| NrD | Nassau very channery silt loam, hilly, very rocky | D | 0.6 | 0.7% |
| Ug | Udorthents, loamy | A | 7.0 | 8.4% |
| Ur | Urban land | | 0.7 | 0.8% |
| W | Water | | 2.9 | 3.5% |
| Wo | Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded | B/D | 72.2 | 86.6% |
| **Totals for Area of Interest** | | | **83.4** | **100.0%** |

## Rating Options—Hydrologic Soil Group

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

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# Appendix E

# Stormwater Management Practices Maintenance Checklists

# Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project ______________________________
Location: ______________________________
Site Status: ______________________________

Date: ______________________________
Time: ______________________________

Inspector: ______________________________

| Maintenance Item | Satisfactory/ Unsatisfactory | Comments |
|---|---|---|
| **1. Embankment and emergency spillway (Annual, After Major Storms)** | | |
| 1. Vegetation and ground cover adequate | | |
| 2. Embankment erosion | | |
| 3. Animal burrows | | |
| 4. Unauthorized planting | | |
| 5. Cracking, bulging, or sliding of dam | | |
| a. Upstream face | | |
| b. Downstream face | | |
| c. At or beyond toe | | |
| downstream | | |
| upstream | | |
| d. Emergency spillway | | |
| 6.Pond, toe & chimney drains clear and functioning | | |
| 7.Seeps/leaks on downstream face | | |
| 8.Slope protection or riprap failure | | |
| 9. Vertical/horizontal alignment of top of dam "As-Built" | | |
| | | |

| Maintenance Item | Satisfactory/ Unsatisfactory | Comments |
|---|---|---|
| 10. Emergency spillway clear of obstructions and debris | | |
| 11. Other (specify) | | |
| **2. Riser and principal spillway (Annual)** | | |
| Type: Reinforced concrete ______<br>Corrugated pipe ______<br>Masonry ______<br>1. Low flow orifice obstructed | | |
| 2. Low flow trash rack.<br>a. Debris removal necessary | | |
| b. Corrosion control | | |
| 3. Weir trash rack maintenance<br>a. Debris removal necessary | | |
| b. corrosion control | | |
| 4. Excessive sediment accumulation insider riser | | |
| 5. Concrete/masonry condition riser and barrels<br>a. cracks or displacement | | |
| b. Minor spalling (<1" ) | | |
| c. Major spalling (rebars exposed) | | |
| d. Joint failures | | |
| e. Water tightness | | |
| 6. Metal pipe condition | | |
| 7. Control valve<br>a. Operational/exercised | | |
| b. Chained and locked | | |
| 8. Pond drain valve<br>a. Operational/exercised | | |
| b. Chained and locked | | |
| 9. Outfall channels functioning | | |
| 10. Other (specify) | | |

| Maintenance Item | Satisfactory/ Unsatisfactory | Comments |
|---|---|---|
| **3. Permanent Pool (Wet Ponds) (monthly)** | | |
| 1. Undesirable vegetative growth | | |
| 2. Floating or floatable debris removal required | | |
| 3. Visible pollution | | |
| 4. Shoreline problem | | |
| 5. Other (specify) | | |
| **4. Sediment Forebays** | | |
| 1.Sedimentation noted | | |
| 2. Sediment cleanout when depth < 50% design depth | | |
| **5. Dry Pond Areas** | | |
| 1. Vegetation adequate | | |
| 2. Undesirable vegetative growth | | |
| 3. Undesirable woody vegetation | | |
| 4. Low flow channels clear of obstructions | | |
| 5. Standing water or wet spots | | |
| 6. Sediment and / or trash accumulation | | |
| 7. Other (specify) | | |
| **6. Condition of Outfalls (Annual , After Major Storms)** | | |
| 1. Riprap failures | | |
| 2. Slope erosion | | |
| 3. Storm drain pipes | | |
| 4.Endwalls / Headwalls | | |
| 5. Other (specify) | | |
| **7. Other ( Monthly)** | | |
| 1. Encroachment on pond, wetland or easement area | | |

| Maintenance Item | Satisfactory/ Unsatisfactory | Comments |
|---|---|---|
| 2. Complaints from residents | | |
| 3.Aesthetics<br>a. Grass growing required | | |
| b. Graffiti removal needed | | |
| c. Other (specify) | | |
| 4. Conditions of maintenance access routes. | | |
| 5. Signs of hydrocarbon build-up | | |
| 6. Any public hazards (specify) | | |
| **8. Wetland Vegetation (Annual)** | | |
| 1. Vegetation healthy and growing<br>Wetland maintaining 50% surface area coverage of wetland plants after the second growing season.<br>(If unsatisfactory, reinforcement plantings needed) | | |
| 2. Dominant wetland plants:<br>Survival of desired wetland plant species<br>Distribution according to landscaping plan? | | |
| 3. Evidence of invasive species | | |
| 4. Maintenance of adequate water depths for desired wetland plant species | | |
| 5. Harvesting of emergent plantings needed | | |
| 6. Have sediment accumulations reduced pool volume significantly or are plants “choked” with sediment | | |
| 7. Eutrophication level of the wetland. | | |
| 8. Other (specify) | | |

**Comments:**

## Actions to be Taken:

# Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

| MAINTENANCE ITEM | SATISFACTORY / UNSATISFACTORY | COMMENTS |
|---|---|---|
| **1. Debris Cleanout (Monthly)** | | |
| Bioretention and contributing areas clean of debris | | |
| No dumping of yard wastes into practice | | |
| Litter (branches, etc.) have been removed | | |
| **2. Vegetation (Monthly)** | | |
| Plant height not less than design water depth | | |
| Fertilized per specifications | | |
| Plant composition according to approved plans | | |
| No placement of inappropriate plants | | |
| Grass height not greater than 6 inches | | |
| No evidence of erosion | | |
| **3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)** | | |
| No evidence of sediment buildup | | |

| MAINTENANCE ITEM | SATISFACTORY / UNSATISFACTORY | COMMENTS |
|---|---|---|
| Sumps should not be more than 50% full of sediment | | |
| No evidence of erosion at downstream toe of drop structure | | |
| **4. Dewatering (Monthly)** | | |
| Dewaters between storms | | |
| No evidence of standing water | | |
| **5. Sediment Deposition (Annual)** | | |
| Swale clean of sediments | | |
| Sediments should not be > 20% of swale design depth | | |
| **6. Outlet/Overflow Spillway (Annual, After Major Storms)** | | |
| Good condition, no need for repair | | |
| No evidence of erosion | | |
| No evidence of any blockages | | |
| **7. Integrity of Filter Bed (Annual)** | | |
| Filter bed has not been blocked or filled inappropriately | | |

**Comments:**

**Actions to be Taken:**

# APPENDIX E

# UPDATED TRAFFIC IMPACT STUDY

TRAFFIC IMPACT STUDY

FOR THE

# PORT OF ALBANY EXPANSION PROJECT

ALBANY, NEW YORK

MAY 14, 2019
(Revised January 20, 2020)

*PREPARED FOR:*

PORT OF ALBANY

*PREPARED BY:*

McFarland Johnson

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**MJ Project No. 18437.00**

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## INTRODUCTION

McFarland Johnson, Inc. (MJ) has prepared the following Traffic Impact Study (TIS) for the proposed development on the property known as Beacon Island in the Town of Bethlehem, Albany County, New York. The proposed industrial development is the expansion of the Port of Albany and will be constructed along the east side of River Road/NYS Route 144 along the Hudson River, south of the existing Port of Albany site. See Figure 1 for the Project Location Map.

The proposed project will be developed on approximately 77 acres within 81.6 acres of vacant, undeveloped land in the Heavy Industrial (I) zoning district. At this time, a specific tenant or end user is unknown and therefore, in order to satisfy the State Environmental Quality Review Act (SEQRA), a concept plan was developed that represents the maximum worst-case scenario from a traffic standpoint was used as the basis for this TIS. This concept plan consists of a single 1,130,000 GSF, two-level distribution center/warehouse with associated internal driveways, parking areas, landscaped areas, utilities and stormwater infrastructure. For the purposes of this study, the project's traffic impact was analyzed in three-phases of development, with Phase I consisting of a 300,000 GSF of total building space, Phase II consisting of 600,000 GSF of total building space and Phase III representing the Full Build scenario of 1,130,000 GSF. The project's concept site plan, as depicted in Figure 2, shows two access points to the site. A 2-lane entrance driveway to the site from River Road for employees and car traffic, and truck and rail access from the north via South Port Road by way of two separate proposed bridges crossing Normans kill Creek. One bridge for vehicles and one for rail cars connect to the on-site roadway and rail network respectively. It has been assumed that the maximum build of the 1,130,000 square feet could occur over a ten-year period.

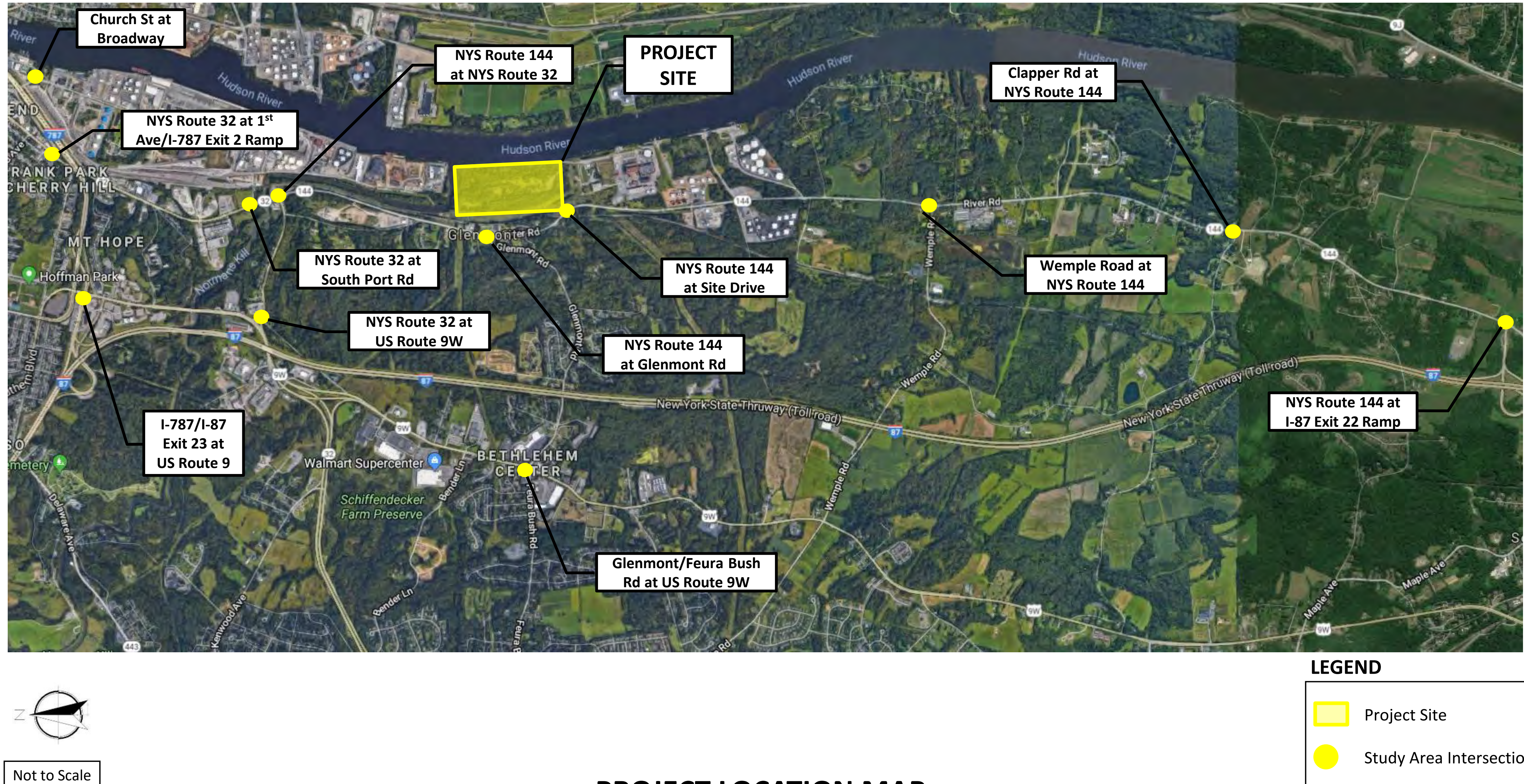
### Scope of the Study

The purpose of this study is to evaluate existing and the maximum worst-case scenario future traffic operations within the study area. The analysis completed by MJ evaluated traffic operations within the Study Area during weekday morning and evening peak hours for 2019 Existing Conditions as well as the 2029 Full Build and phased development that includes Background Conditions.

Build Conditions were analyzed to determine the impacts, if any, associated with the proposed distribution center/ warehouse. Based on initial project scoping discussions with the Town of Bethlehem Planning Board and the New York State Department of Transportation, the traffic study area includes the following intersections:

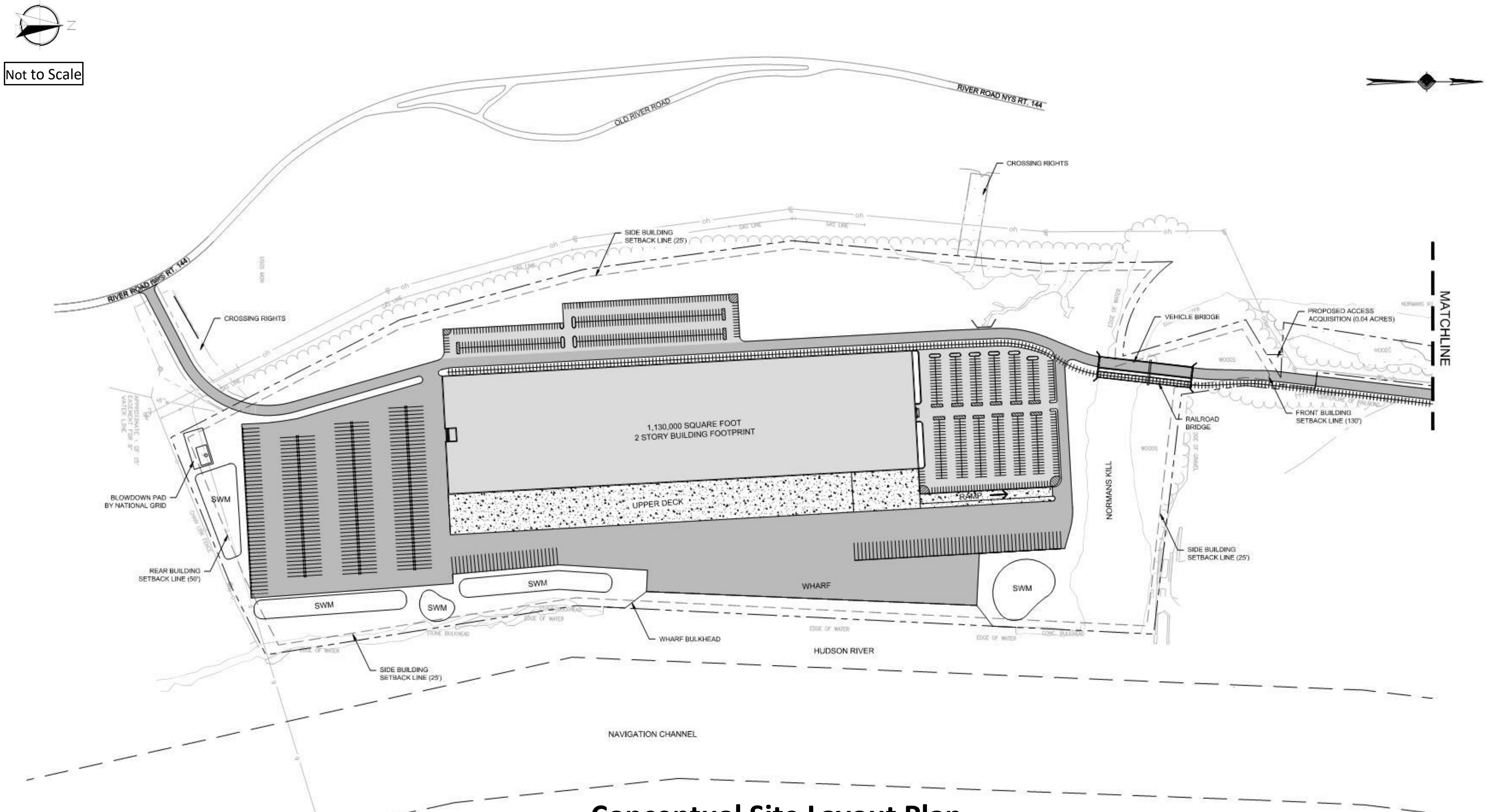
- NYS Route 32 at First Avenue/I-787 Exit 2 Ramp *(Signalized)*
- NYS Route 32 at US Route 9W *(Signalized)*
- NYS Route 32 at South Port Road *(Signalized)*
- NYS Route 144 at I-87 Exit 22 Ramp *(Un-Signalized)*
- NYS Route 144 at Glenmont Road *(Un-Signalized)*
- NYS Route 144 at NYS Route 32 *(Un-Signalized)*
- Church Street at Broadway *(Un-signalized)*
- Glenmont/Feura Bush Road at US Route 9W *(Signalized)*
- Clapper Road at NYS Route 144 *(Un-signalized)*
- I-787/I-87 Exit 23 Interchange at US Route 9W (*Signalized)*
- Wemple Road at NYS Route 144 *(Un-Signalized)*

Descriptions of the existing physical conditions within the roadway corridor are presented in the following narratives.




# PROJECT LOCATION MAP

**FIGURE 1**




## Conceptual Site Layout Plan



**FIGURE 2**

## EXISTING CONDITIONS

Evaluation of the existing and future traffic conditions within the Study Area requires an understanding of the existing transportation system. Data such as roadway geometrics, traffic signal timings and peak hour traffic volumes provide the basis for a thorough understanding of existing conditions, and the requisite data necessary to provide projections of future traffic conditions typical under the Build scenarios.

### Existing Roadway Network

The project is located on the east side of River Road/NYS Route 144 along the Hudson River, south of the existing Port of Albany.

River Road Corridor

NYS Route 144 (River Road) is a two lane, state-owned and maintained urban minor arterial providing north-south access from the City of Albany to land parcels along the west side of the Hudson River. There is an average daily traffic volume of approximately 6,700 vehicles. Northbound heavy vehicle volume is 13.3% of ADT, 3.8% of which are tractor trailers, while southbound heavy vehicle volume is 12.3% of ADT, 4.0% of which are tractor trailers. Land use in the immediate vicinity is primarily industrial to the north and south of the proposed site. Within the study area, lane width varies between 10 and 12 feet, and has a paved shoulder width that varies between 6 and 9 feet, as described at each specific intersection in the Existing Conditions section of this report. The posted speed limit is 55 mph with an 85$^{th}$ percentile speed of 55 mph just north of the proposed development site. River Road (NYS Route 144) changes to NYS Route 32 at the intersection of River Road and Corning Hill Road. Just north of this intersection is the City of Albany limits where NYS Route 32 continues but as S. Pearl Street with a 30-mph posted speed limit.

South Port Road Corridor

South Port Road is an 850 feet long two-lane, city-maintained urban major collector that tees into Normanskill Street to connects several industrial collector roads within the Port of Albany to NYS Route 32. South Port Road is approximately 28 feet wide and lacks pavement striping that would delineate travel lanes or shoulders. The road does not include curb or accommodations for pedestrians. The Roadway has corrugated beam guide railing on both sides and the intersection with NYS Route 32 and has enlarged shoulder radii to accommodate the high percentage of truck traffic. The posted speed limit is 30 mph. As described in the intersection capacity analysis section of this report, due to the high volume of traffic entering the proposed development including proposed truck traffic, it is recommended that a dedicated left turn lane for the southbound approach be installed, as well as a new right turn lane pocket for the westbound approach, to split the traffic exiting the Port to allow better use of the traffic signal.

Figure 3 show the geometry and traffic control type for the existing study area intersections and descriptions of these intersections are below.

No. 1 – NYS Route 32 (S. Pearl Street) at 1st Avenue/I-787 Exit 2 Ramp


This intersection is an offset 4-way intersection operating under an actuated traffic signal. The northbound and southbound NYS Route 32 approaches and the eastbound 1st Avenue approach each consist of a single 12' lane for shared travel movements. No shoulder is present. The westbound I-787 Exit 2 Ramp approach consists of a 16' exclusive left-turn lane and a 16' shared through/right-turn lane with 6' shoulders and split signal timing with 1st Street. The posted speed limit is 25 mph for the north, south, and eastbound approaches. No speed limit signs are posted for the westbound approach. All approaches include curbed sidewalks, push-button operated pedestrian signal poles, and crosswalk striping.

No. 2 – NYS Route 32 (Corning Hill Road) at US Route 9W


This intersection is a 3-legged, intersection operating under an actuated traffic signal. The northbound US Route 9W approach consists of two 12' through lanes with a 6' shoulder and a yield-controlled slip right-turn lane, while the southbound US Route 9W approach consists of a 12' exclusive permissive-protected left-turn lane and two 12' through lanes with a 7' shoulder. The westbound NYS Route 32 approach consists of an exclusive left-turn lane and a separate yield-controlled slip right-turn lane. Both slip right-turn lanes are 18' wide with 5' shoulders. US Route 9W and NYS Route 32 both have a posted speed limit of 45 mph. This intersection does not have accommodations for pedestrians.

No. 3 – NYS Route 32 at South Port Road

This intersection is a 'T' type, 3-legged intersection operating under a semi-actuated traffic signal. The northbound and southbound NYS Route 32 approaches and the westbound South Port Road approach each consist of a single 12' lane for shared travel movements. The posted speed limit is 30 mph for each approach. This intersection does not have accommodations for pedestrians and has enlarged shoulder radii to accommodate the high percentage of truck traffic.

<u>No. 4 – NYS Route 144 (River Road) at I-87 Exit 22 Ramp</u>

This is a 'T' type, 3-legged intersection operating under stop sign control for the eastbound I-87 Exit 22 Ramp approach. The northbound NYS Route 144 approach consists of a single lane for shared travel movements while the southbound approach consists of a through lane and a yield-controlled slip right-turn lane. The eastbound I-87 Exit 22 Ramp approach consists of a left-turn lane and a stop sign controlled slip right-turn lane. The posted speed limit for NYS Route 144 is 55 mph. There is no speed limit posted for the I-87 Exit 22 Ramp. There are no accommodations for pedestrians. All lanes feature 12' lanes and 6' shoulders except the slip right-turn lanes, which have 22' lanes with a 12' shoulder.

<u>No. 5 – NYS Route 144 (River Road) at Glenmont Road</u>


This is a four-way intersection operating under stop sign control on the eastbound Glenmont Road approach and on the westbound Old River Road Approach. All approaches consist of a single lane for shared travel movements. The posted speed limit is 55 mph on NYS Route 144 and 40 mph on Glenmont Road. Old River Road is a low volume road runs that parallel to River Road and has a sharp 90-degree bend at the intersection. No volumes were recorded for Old River Road. For the purposes of this traffic study, the intersection was treated as a 3-legged intersection. The intersection does not provide accommodations for pedestrians. The eastbound approach consists of a 10' lane with a 5' shoulder, while the north and southbound approaches have a 12' lane with a 5' shoulder.

<u>No. 6 – NYS Route 144 (River Road) at NYS Route 32 (Corning Hill Road)</u>


This intersection is a ‘T’ type, 3-legged intersection with the eastbound approach being stop sign-controlled and the north and southbound approaches being free flow. The northbound and southbound approaches consist of a single lane for shared travel movements while the eastbound approach consists of separate left and right-turn lanes. The posted speed limit is 45 mph for the NYS Route 32 and 55 mph for NYS Route 144. There are no accommodations for pedestrians at this intersection. All approaches consist of a 12’ travel lane with 9’ shoulders at the intersection.

<u>No. 7 – Church Street at Broadway</u>

This is a ‘T’ type, 3-legged intersection operating under stop sign control for the westbound Broadway approach. The northbound Church Street approach consists of a single lane for shared through and right-turn movements while the southbound Church Street approach provides an exclusive left-turn lane and a separate through lane. The westbound Broadway approach consists of a left-turn lane and a yield-controlled slip right-turn lane. The posted speed limit is 30 mph and the intersection does not have accommodations for pedestrians. All approaches have 12’ lanes with 4’ shoulders except the slip right-turn lane, which features a 20’ travel lane with a 5’ shoulder.

<u>No. 8 – Glenmont/Feura Bush Road at US Route 9W</u>


This intersection is a 4-legged intersection operating under an actuated, uncoordinated traffic signal. The northbound and westbound approaches each consist of a single lane for all movements, while the southbound approach has a dedicated right-turn lane and a shared lane for through and left-turn movements. The eastbound approach consists of a dedicated left-turn lane and a shared lane for through and right-turn movements. Both the northbound and westbound approach include curbed sidewalks, push-button operated pedestrian signal poles, and crosswalk striping. It should be noted that this signalized intersection will be converted to a hybrid 2-lane roundabout, with construction estimated to be complete by the Spring of 2021.

No. 9 – Clapper Road at NYS Route 144 (River Road)

This is a 'T' type, 3-legged intersection consisting of a stop sign controlled eastbound approach for Clapper Road and free flow for NYS Route 144. There is a residential driveway opposite Clapper Road. Clapper Road is a local road running east-west between NYS Route 144 and US Route 9W. The posted speed limit for Clapper Road is 30 mph and 55 mph for NYS Route 144. The north and southbound approaches feature a 12' travel lane with a 6' shoulder, while Clapper Road lacks pavement striping and dedicated travel lanes.

No. 10 – I-787/I-87 Exit 23 Interchange at US Route 9W


This is a four-phase actuated signalized interchange for traffic entering and exiting I-87 to US Route 9W via exit 23. This interchange consists of two signalized intersections which run on a single signal controller, with one three-legged intersection at the I-87 westbound on-ramp and the other at the I-87 eastbound off-ramp. The first intersection consists of a westbound enter only on-ramp, a northbound approach providing both left-through and through only lanes, and a southbound approach with a right-through and through only lane. The second intersection consists of the exit only off ramp with a yield controlled channelized right turn lane and dedicated left turn lane onto US Route 9W northbound. Both the northbound and southbound approaches provide two through only lanes. There are no accommodations for pedestrians. The north and southbound approaches, as well as the eastbound left-turn movement, feature 12' travel lanes with a 4' shoulder, while the off ramp's channelized right turn lane consists of a 16' travel lane with a 4' shoulder.

No. 11 – Wemple Road at NYS Route 144 (River Road)


The intersection of Wemple Road with NYS Route 144 (River Road) consists of two separate 'T' type 3-legged intersections, both consisting of a stop sign controlled eastbound approach for Wemple Road and free flow for NYS Route 144. Wemple Road is a local road running east-west between NYS Route 144 and US Route 9W. The posted speed limit for the Wemple Road is 30-mph with a curve advisory posted speed limit of 15-mph at the northern access drive, and 20-mph for Southern Intersection the southern access drive. The posted speed limit for NYS Route 144 at the intersection is 55-mph for. NYS Route 144 features a 12' travel lane with a 6' shoulder, while the southern Wemple Road access drive consists of a 10' travel lane with a 2' shoulder. The northern Wemple Road access drive lacks pavement striping and dedicated travel lanes. The southern Wemple Road access drive provides existing signage prohibiting tractor trailers, with the exception of local deliveries.

Northern Intersection

**Traffic Data Collection**

Existing traffic volumes for the study area intersections were established for this project by performing manual turning movement counts (TMC). Traffic counts were video recorded from 7:00 to 9:00 AM and 4:00 to 6:00 PM on Tuesday, February 5, 2019. Additional data was recorded during the same time frames on Tuesday, February 26, 2019. Data for the Wemple Road/NYS Route 144 (River Road) intersection were established by performing TMC which were recorded Wednesday, September 25, 2019 from 7:00 to 8:30 AM and 4:15 to 5:45 PM, by McFarland Johnson. Volume data for the Interchange 23 ramps to US Route 9W were established by performing TMC which were recorded on August 15, 2019 from 7:30 to 9:00 AM and 4:15 to 5:45 PM, by McFarland Johnson. The counting timeframes were based on the peak traffic periods for intersections in the area. The TMC data shows that the weekday traffic peaks within the study area range between 7:00 and 8:30 AM in the morning while the evening traffic peak range was between 4:15 and 5:45 PM. Volume data for the I-787 northbound on ramp from US Route 9W capacity analysis was collected by an automatic traffic recorder from Monday, September 30, 2019 to Wednesday, October 2, 2019. In addition to this data, an automatic traffic recorder was placed on NYS Route 144 (River Road) near the proposed project site from Monday-Friday to continuously collect directional traffic volumes, vehicle classifications, and vehicle speed data. This information was used to verify the peak hours recorded from the TMC data and is included in Appendix A. Because of the varied distance between study intersections, the peak hour of traffic was taken from the TMC data for each individual intersection that was counted to ensure the peak volumes were analyzed at each intersection. These volumes were used to compute the 2019 Existing Conditions for the traffic study and the TMC summary data sheets are included in Appendix A.

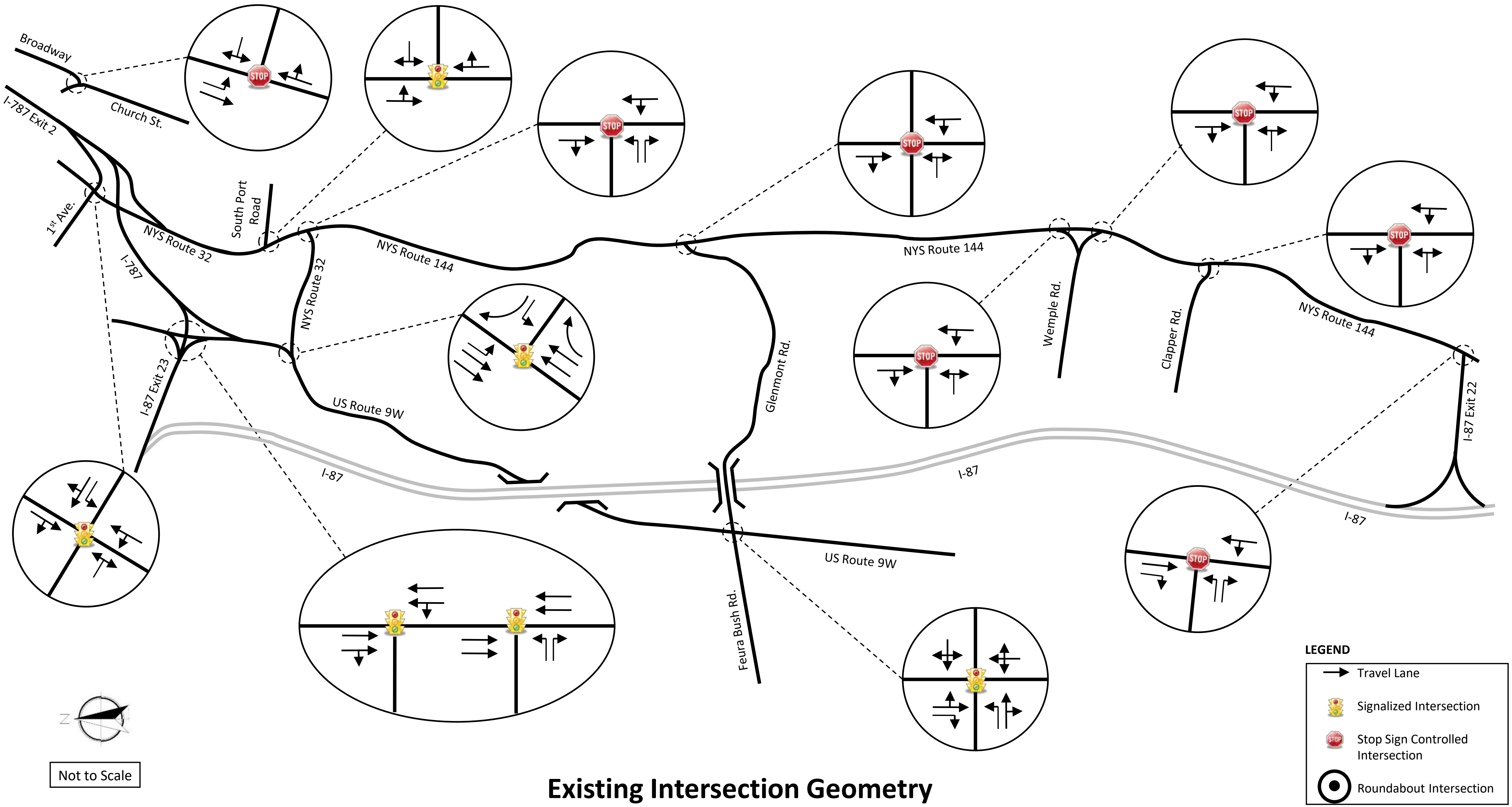
In addition to the TMC data, a field review was conducted of the proposed study area. During the visit, information regarding signal timings, peak hour queue lengths, existing pedestrian signage, and auxiliary pedestrian safety devices was recorded and used to more accurately model the existing conditions for the traffic study.

**2019 Existing Traffic Volumes**

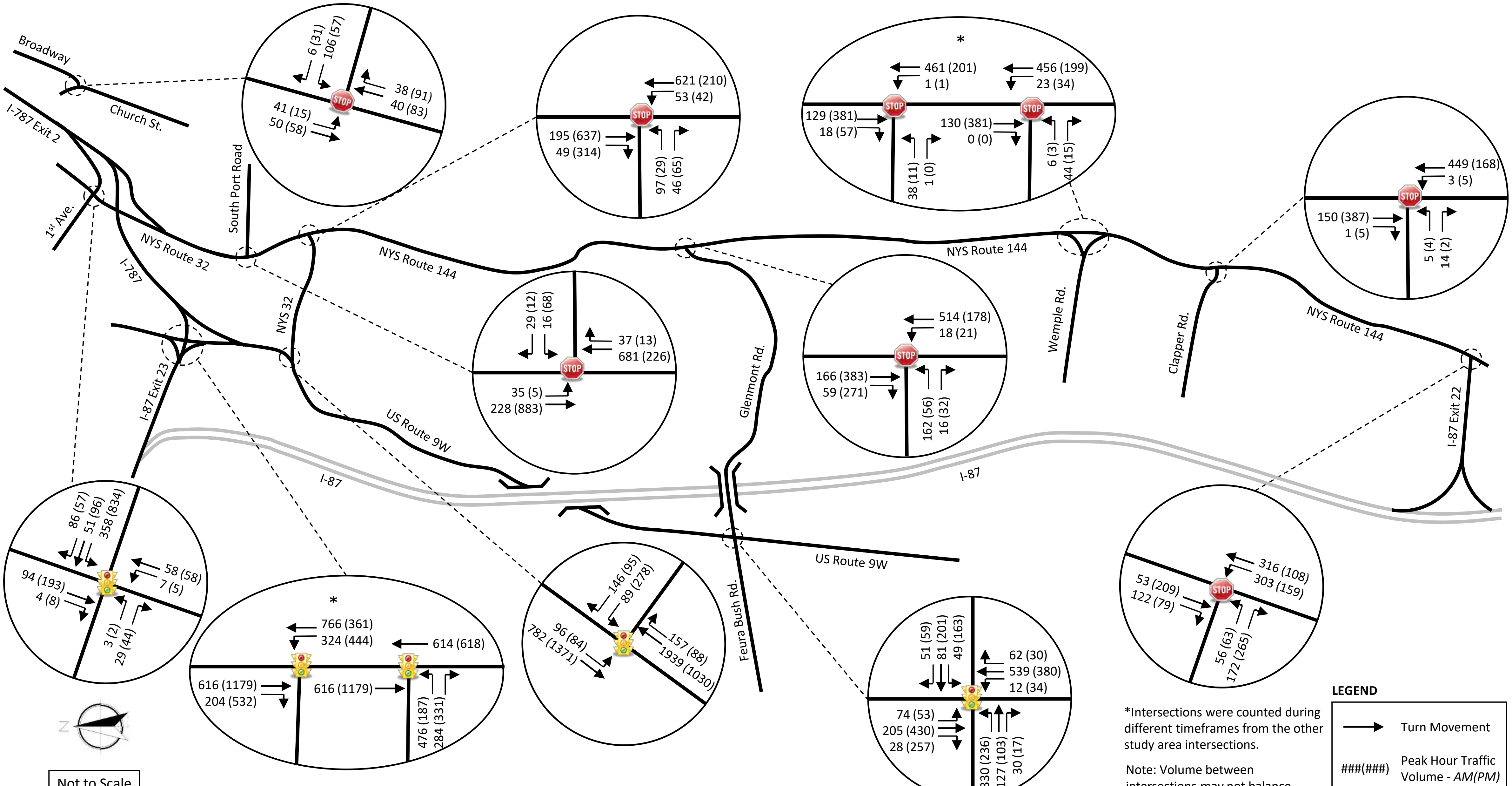
The 2019 traffic volumes in the study area were established, verified for accuracy, and are shown in Figure 4. To determine if the TMCs required adjustment due to seasonal variation, a seasonal adjustment factor data was obtained from the New York State Department of Transportation - Highway Data Services Bureau (NYSDOT). NYSDOT has developed seasonal adjustment factors based on three land-use classifications, urban, suburban and recreational. The study area for this proposed development is classified as urban and a factor of 0.944 was used to adjust the collected data collected in February to represent an average day for both the AM and PM peak hours. This results in a 6% increase in the traffic counted in the month of February, while traffic data collected in

August, September and October were not seasonally adjusted. Available historic count data from NYSDOT and previously completed traffic studies in the area were reviewed to confirm the applied adjustments were appropriate. These volumes, 2019 Existing Traffic Volumes (see Figure 4) were analyzed and are included in the appendix.

Analysis of the base condition allows the TIS to develop a comparison to future conditions and enables the study to calibrate the traffic model to mimic the present real-life operations that are observed.




## Existing Intersection Geometry




## 2019 Existing Traffic Volumes

**NO-BUILD CONDITIONS**

The 2019 existing traffic volumes were grown by an annual background growth rate of 0.5% per year for a total growth of 5.0% to create the 2029 Background traffic volumes. The growth rate was established by regression analysis and comparing average annual daily traffic data published by NYSDOT for various years within the project study area. This analysis showed that the area's traffic volumes have been relatively flat with 0-0.5% annual growth over the past 10-15 years; therefore, a 0.5% annual growth rate was applied that will accurately model future traffic in the area. The regression analysis calculations are included in Appendix B and the background growth rate was sent to the NYSDOT and accepted after their review. The Capital District Transportation Committee (CDTC) was contacted and the CDTC STEP Model outputs for the study corridors for the 2029 background year were provided, which ranged from 0.6% to 1.2% for the roadways in the study area. When accounting for the fact that specific background developments were also added to the TIS background conditions, the 0.5% growth rate is relatively consistent with the CDTC STEP model results.

The Town of Bethlehem and NYSDOT were contacted to determine if additional background traffic from any other developments and/or roadway projects within the study area currently under review or approved should be included in the study. The town noted the following potential future developments in the area: the Gateway Commerce Center, the Beacon Heights Senior Community, a convenience store/gas station to be built at 194 River Road, the Wiggand/Grady Conservation Subdivision, Kenwood Commons along Route 9W (which is no longer active), and a commercial shopping plaza across from the NYS Thruway Authority Building. Of these, only the Gateway Commerce Center has had a traffic study completed and received site plan approval from the town.

The traffic impact study for the Gateway Commerce Center were used to incorporate the anticipated traffic generated by this site within the study area. Included in Appendix B is the trip generation rates and figures from the Traffic Impact Study completed by CME.

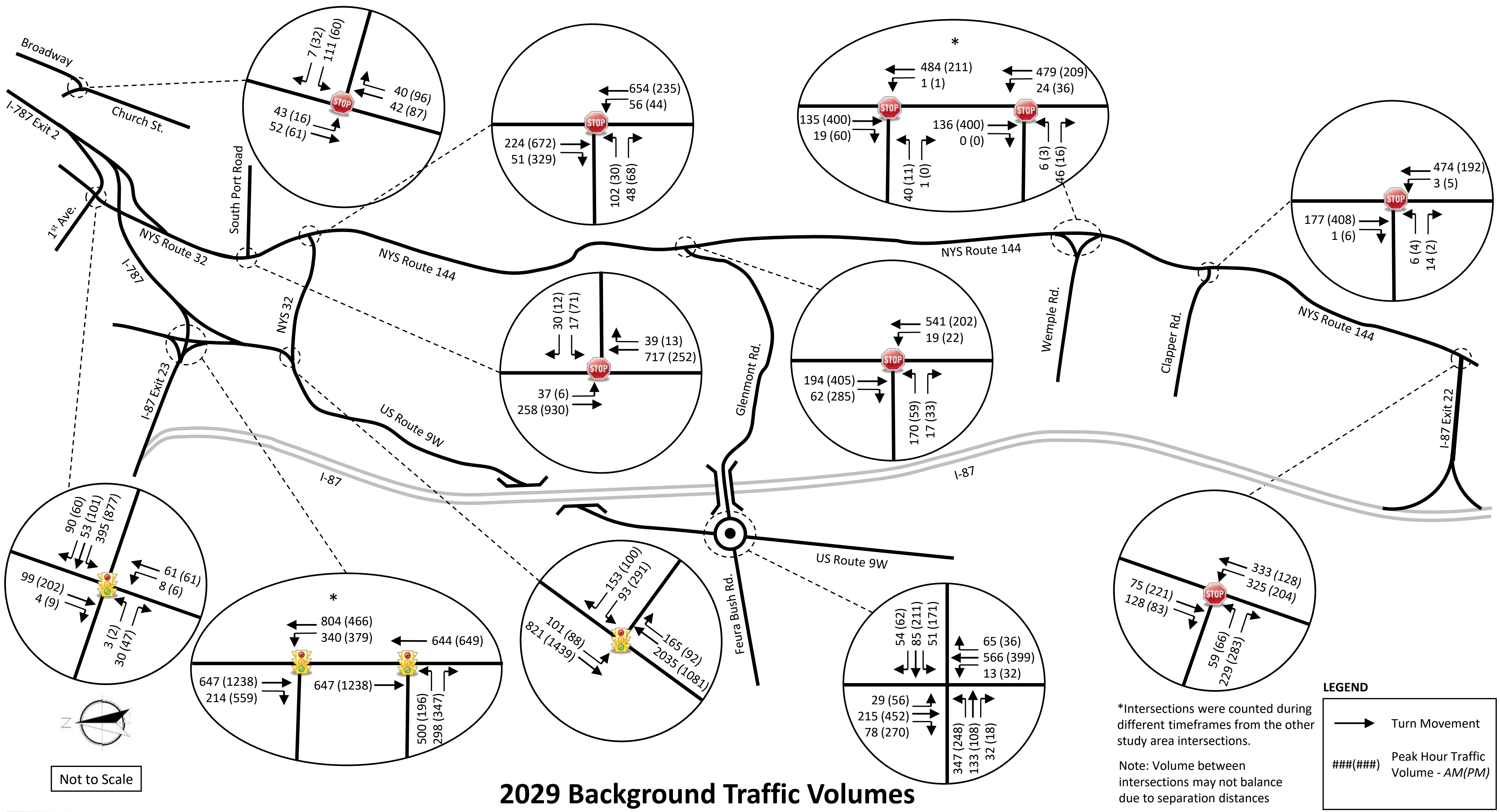
The Beacon Heights Senior Community project will be located off of River Road, Anders Lane and Glenmont Road, consisting of a two-story 89,000 square foot, 72 unit assisted living facility with parking. A two-story, 20,000 square foot commercial building with additional parking is also proposed. Due to the conceptual state of the project and the minimal traffic generated by this type of development, it was determined that the existing background growth rate will accommodate any nominal traffic associated with this project should this development be constructed and operational by 2029.

The convenience store/gas station located at 194 River Road will consist of a roughly 2,300 square foot mixed-use building, with a total of 8 gas pumps. This project will likely have minimal to no impact on traffic as the majority of the traffic would be pass-by traffic, and it is assumed that a traffic analysis was not required for the project, and as such does not warrant inclusion in this study.

Due to the location, type of development, and conceptual state of these project without any traffic studies completed at this time, it was determined that the existing background growth rate will accommodate any nominal traffic associated with the remaining projects noted (Wiggand/Grady Conservation Subdivision, Kenwood Commons along Route 9W, and a commercial shopping plaza across from the NYS Thruway Authority Building) should some of these developments be constructed and operational by 2029.

The 2029 Background traffic volumes shown in Figure 5 include existing traffic data, the proposed traffic volumes from the Gateway Commerce Center and annual background traffic growth. These

“Background” traffic volumes are used as a base upon which to add the proposed development’s traffic.




# 2029 Background Traffic Volumes

## BUILD CONDITIONS

### Trip Distribution

The projected trip distribution model for this proposed project was established for all vehicles based on distributions from the existing Port of Albany site and taking into consideration the proposed new southern driveway onto NYS Route 144. This distribution was reviewed by the Town's Consultant Engineer and compared with the previous study completed for the site (Beacon Harbor 2009) to compare the proposed traffic distributions, which were relatively consistent. CDTC was provided the TIS and did not provide any comments on the proposed traffic distributions.

Figure 6 shows the calculated trip distribution percentages for the proposed development's access drive onto NYS Route 144 during the weekday morning and evening peak hours. These trip distribution percentages were used to assign the trips generated by the proposed project.

### Trip Generation

The proposed development is scheduled to be completed by 2029 over three phases. For analysis purposes, site generated traffic was based on the current Port of Albany's traffic generation. A traffic generation rate was calculated for the existing Port on a peak hour trip per building square foot basis. The number of vehicles entering/exiting the Port driveways from the TMC data during the peak hour was used to develop the existing site's trip generation rate. That site-specific rate was applied to the proposed build-out of the site for Phase I, II and III scenarios. The proposed trip generation volumes are comparable to the Institute of Transportation Engineer's (ITE) Trip Generation manual, 10$^{th}$ edition (ITE's) established rates for an Industrial Park land use, at 463 morning and 452 evening trips, higher than the Warehousing land use, at 249 morning and 271 evening trips, and less than the Manufacturing land use, at 915 morning and 893 evening trips. Utilizing the current traffic generation for the Port of Albany is the most accurate representation of proposed land use and tenants likely for the new development site. Should a single manufacturing facility be proposed at the site, the facility/building would not be in the order of magnitude of 1.13 million square feet as this is not feasible as a proposed development alternative for the site. Based on the nature of the development no multi-use trips or pass-by trips were assumed in this study as all proposed traffic is directly related to the Port expansion with proposed commercial/industrial/manufacturing land use.

For all three redevelopment phases, the 2029 Background traffic volumes were used as the base volume for consistency and to be conservative.

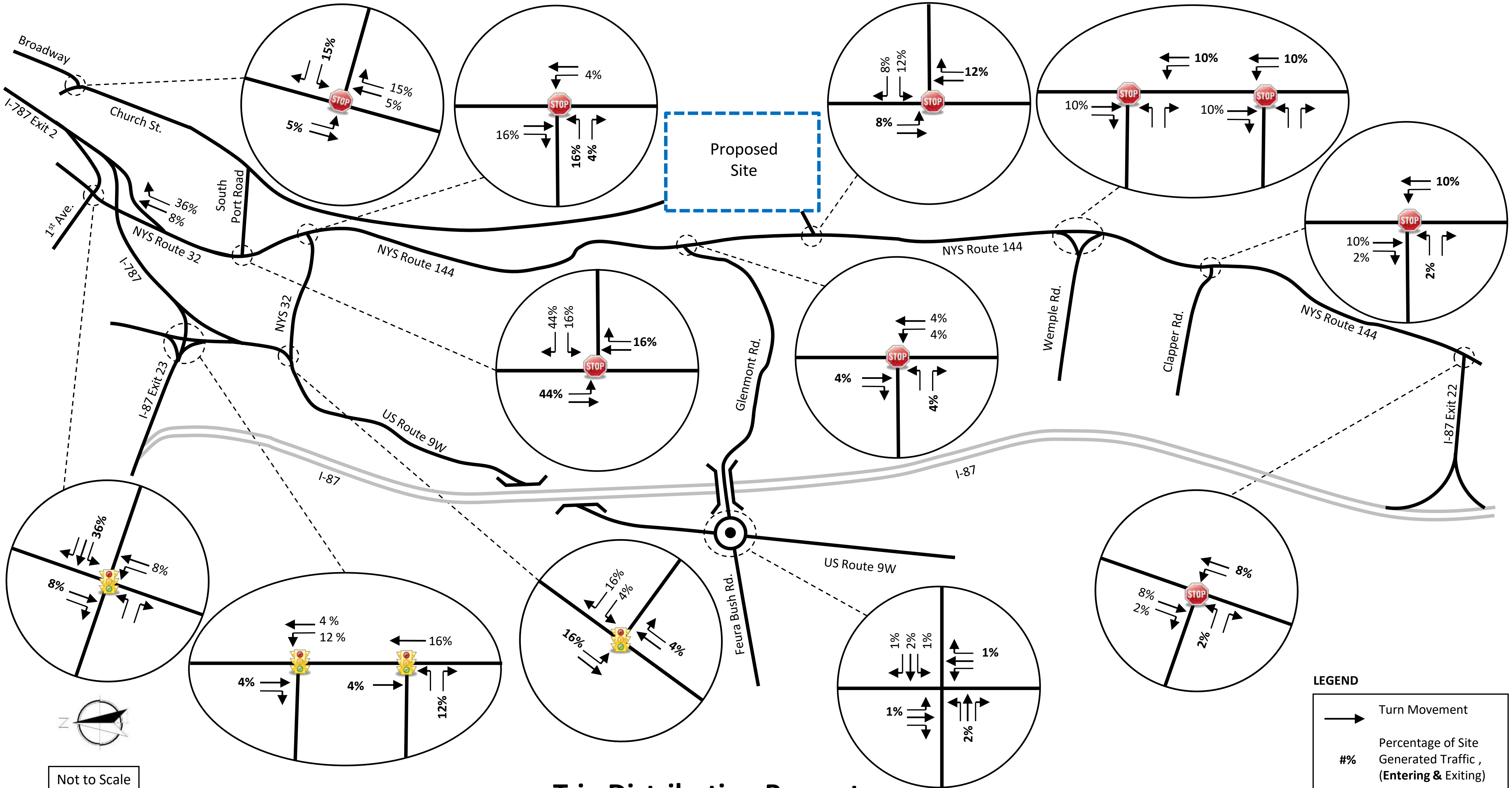
Shown in Table 1 are the resulting trip generation volumes calculated for the proposed project.

**Table 1 – Trip Generation Table**

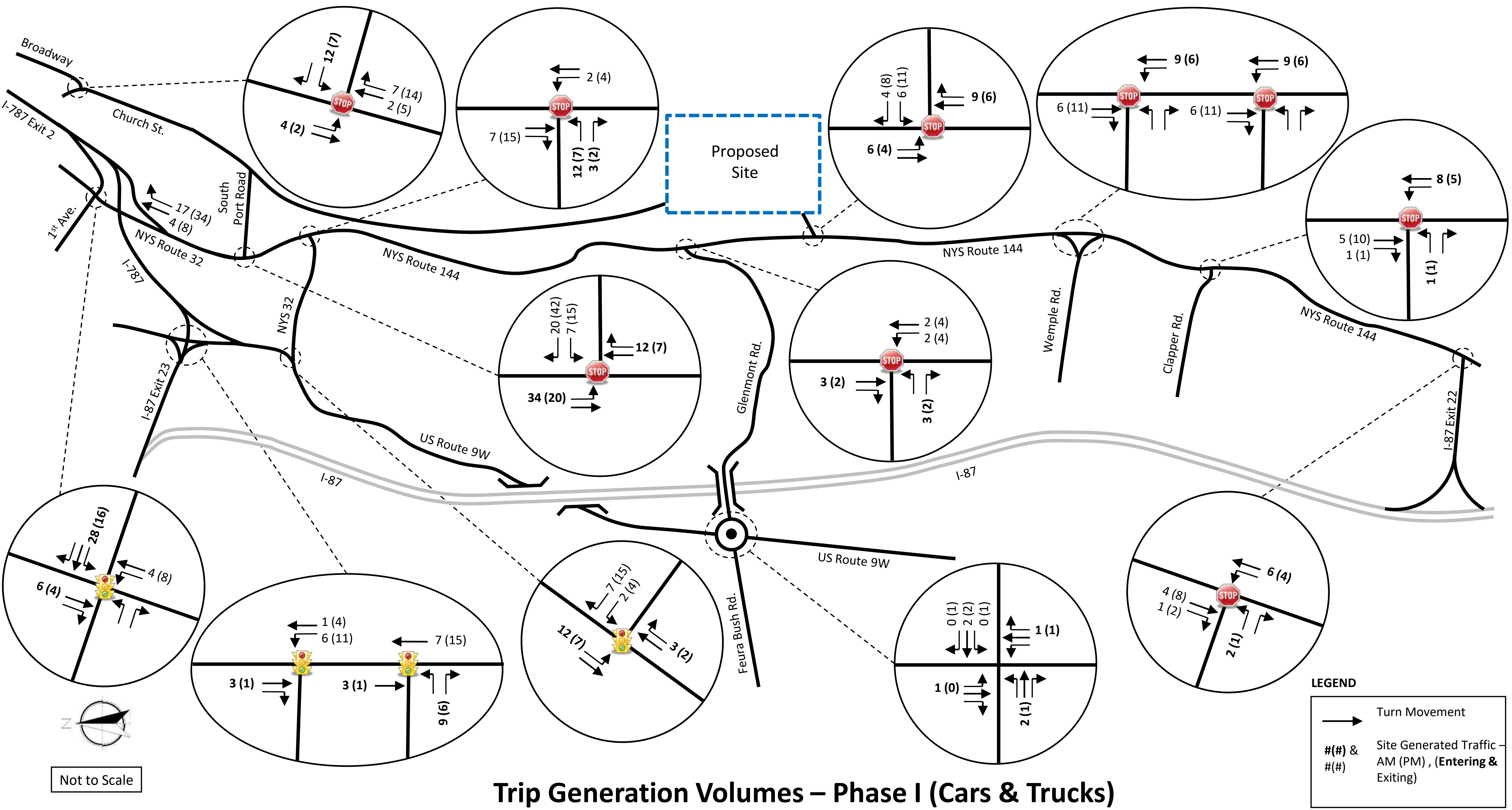
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| 2029 Build - Phase I | NA | 300 | 1000 SF | Generation Rate = | | 0.41 | Generation Rate = | | 0.47 |
| | | | | 62% | 38% | 100% | 33% | 67% | 100% |
| | | | | 77 | 46 | 124 | 46 | 95 | 141 |
| **Total Projected Trips** | | | | **77** | **46** | **124** | **46** | **95** | **141** |
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| 2029 Build - Phase II | NA | 600 | 1000 SF | Generation Rate = | | 0.41 | Generation Rate = | | 0.47 |
| | | | | 62% | 38% | 100% | 33% | 67% | 100% |
| | | | | 154 | 93 | 247 | 92 | 189 | 281 |
| **Total Projected Trips** | | | | **154** | **93** | **247** | **92** | **189** | **281** |
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| 2029 Build - Phase III | NA | 1,130 | 1000 SF | Generation Rate = | | 0.41 | Generation Rate = | | 0.47 |
| | | | | 62% | 38% | 100% | 33% | 67% | 100% |
| | | | | 291 | 175 | 465 | 173 | 355 | 529 |
| **Total Projected Trips** | | | | **291** | **175** | **465** | **173** | **355** | **529** |

To generate the trips in the table above, the peak hour turn movement counts were used as the basis for establishing the existing commuter peak hour volumes and associated trip generation rate. Figures 7,8 and 9 show the trips generated by the proposed development distributed within the study area intersections for the Build Phases I, II and III.

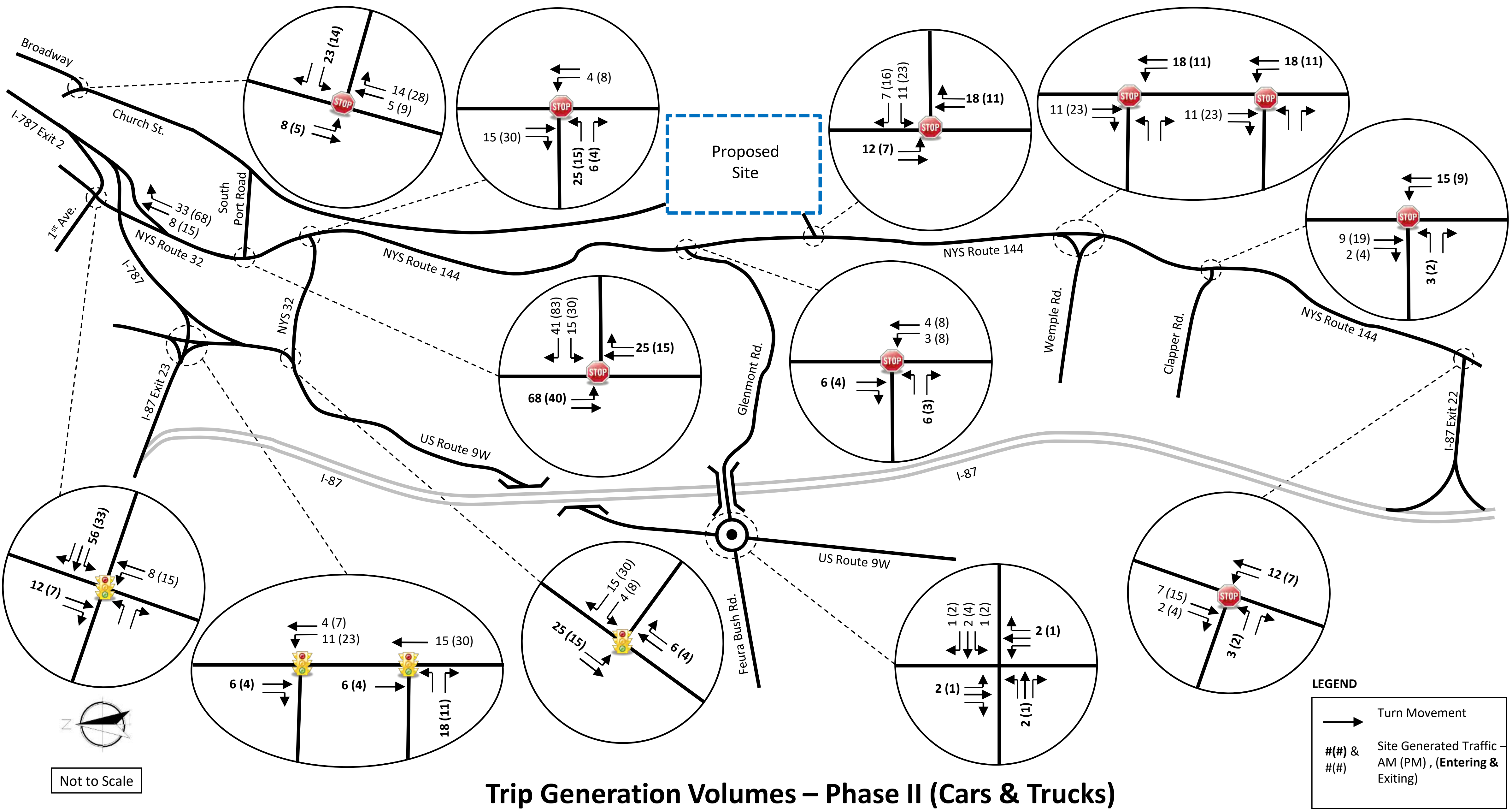
Additional data and calculation sheets used to develop the trip generations rates are included in Appendix B, including a breakdown of projected traffic associated with comparable ITE land uses.



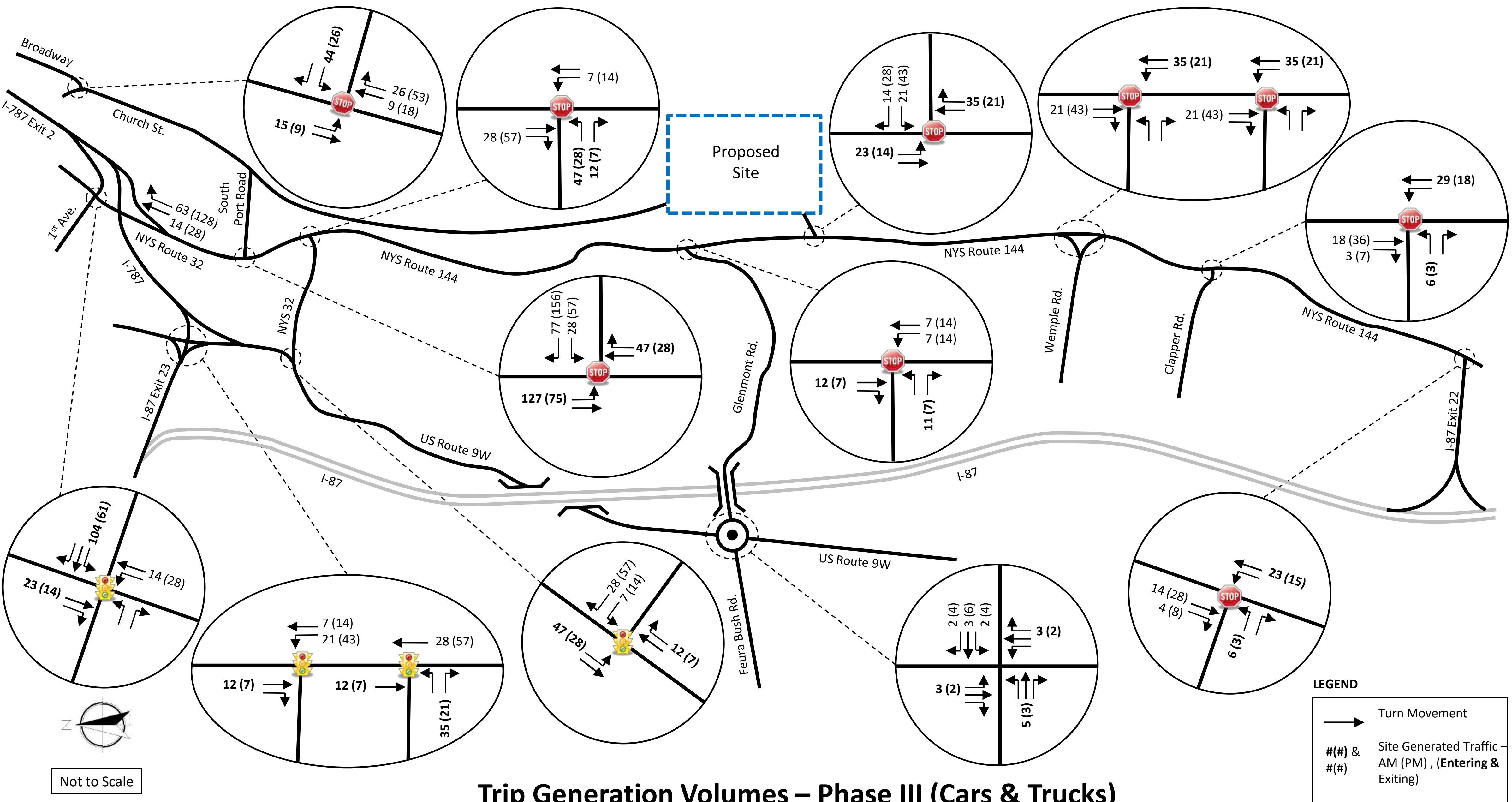

## Trip Distribution Percentages




**Trip Generation Volumes – Phase I (Cars & Trucks)**




**Trip Generation Volumes – Phase II (Cars & Trucks)**




**Trip Generation Volumes – Phase III (Cars & Trucks)**

**LEGEND**

Turn Movement

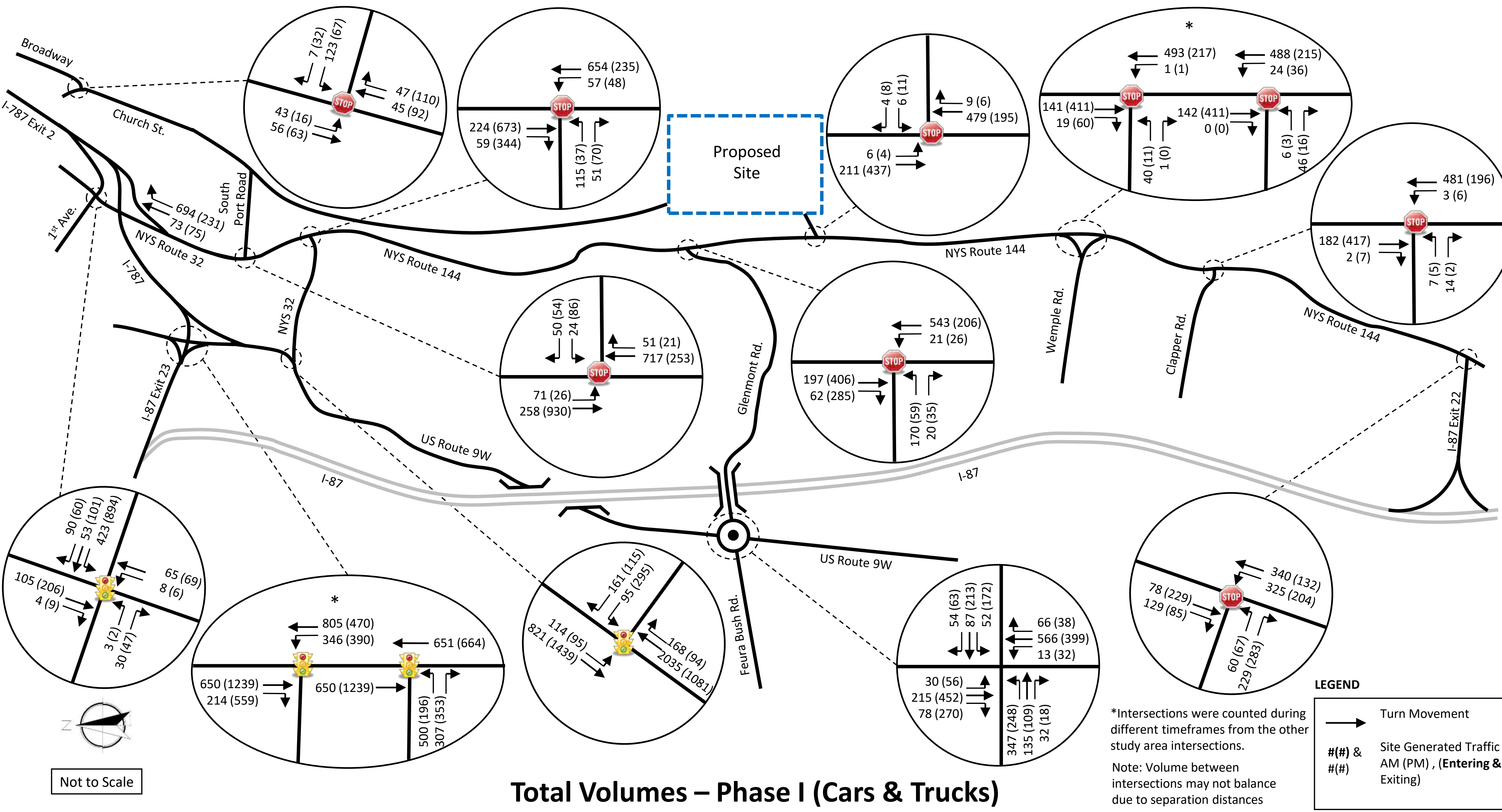
**#(#)** & #(#) — Site Generated Traffic – AM (PM), (**Entering &** Exiting)

McFarland Johnson

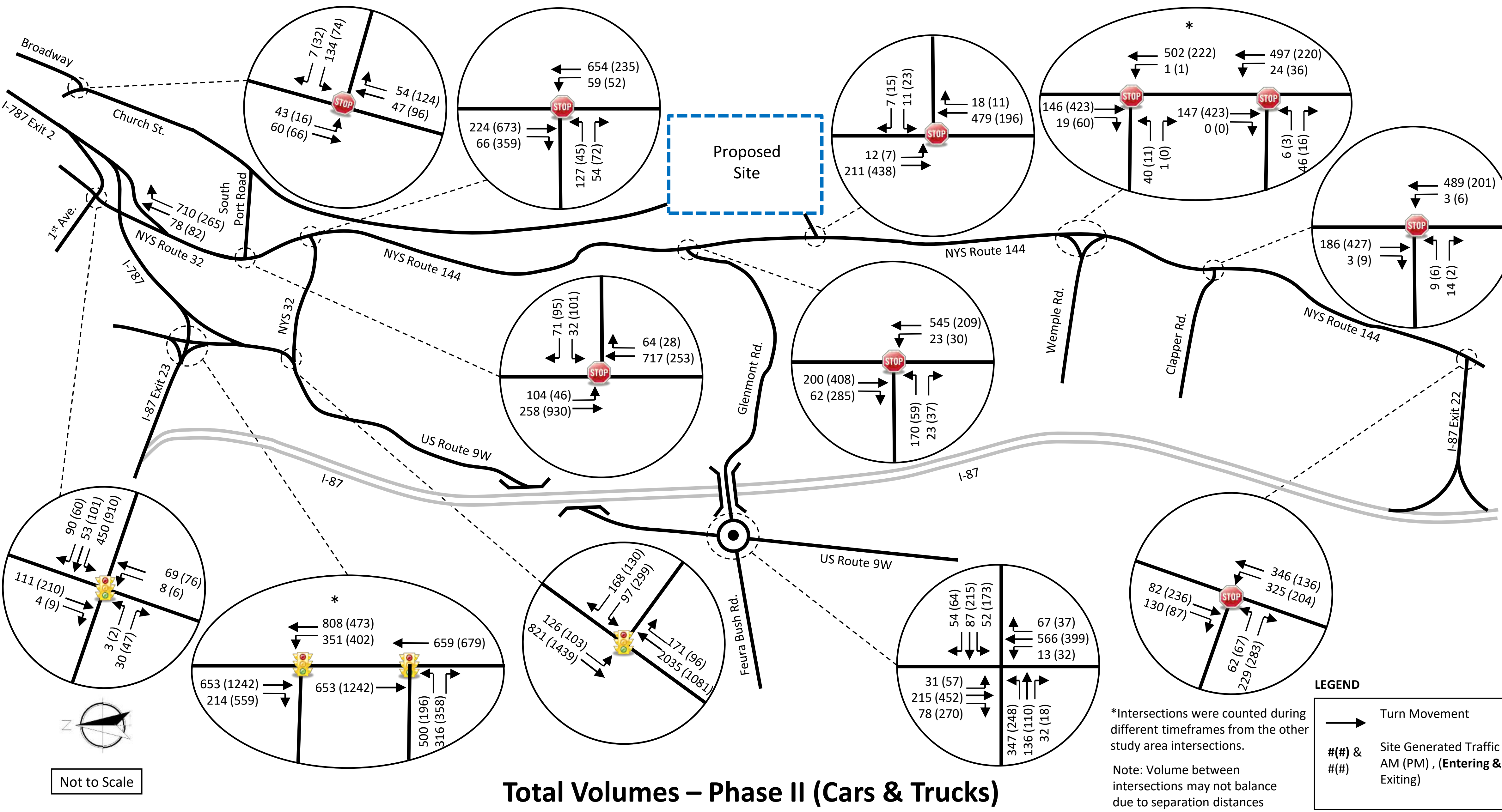
**FIGURE 9**

**2029 Build Traffic Volumes**

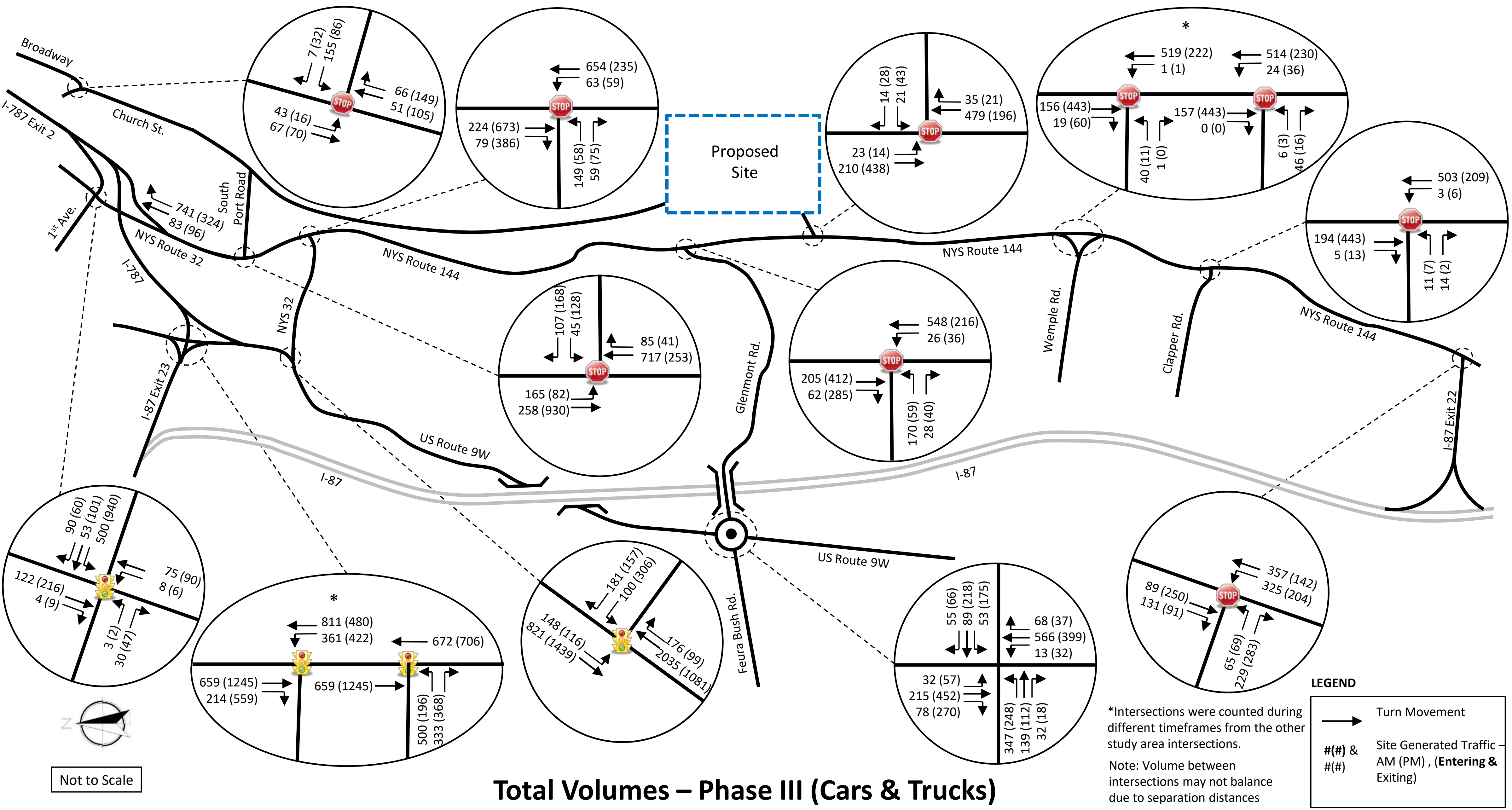
Figures 10, 11 and 12 show the proposed weekday morning and evening peak hour traffic volumes associated with the 2029 Build conditions for build Phases I, II and III. These volumes represent the 2019 Existing volumes combined with the 2029 Background annual traffic growth and the addition of the estimated trips generated by the proposed project for each respective build phase.




**Total Volumes – Phase I (Cars & Trucks)**




**Total Volumes – Phase II (Cars & Trucks)**




**Total Volumes – Phase III (Cars & Trucks)**



**FIGURE 12**

## TRAFFIC OPERATIONS

### Intersection Capacity – Unsignalized Intersections

Level of service (LOS) is a term used to characterize the operational conditions of a traffic facility at a particular point in time. Numerous factors contribute to a facility's LOS including travel delay and speed, congestion, driver discomfort, convenience, and safety based on a comparison of the facility's capacity to the facility's demand. Alphabetic designations A through F define the six levels of service. LOS A represents very good traffic operating conditions with minimal delays while LOS F depicts poor traffic operating conditions with excessive delays and queues.

Operating levels of service are calculated using the procedures defined in the Highway Capacity Manual, published by the Transportation Research Board. The operating LOS of two-way stop-controlled (TWSC), all-way stop-controlled (AWSC) and roundabout intersections is the computed or measured delay. The intersection delay is based upon the quality of service for the vehicles turning into and out of minor approaches, i.e.; approaches that are stop/yield controlled. The availability of sufficient gaps in the traffic stream on the major street/roundabout controls the capacity for movements to and from the minor approaches, thus resulting in delays for the minor approaches. The criteria, or the delays associated with corresponding levels of service for TWSC, AWSC and roundabout intersections, as specified by the Highway Capacity Manual and are shown in Table 2 below.

**Table 2**
**Unsignalized/Roundabout Intersection Level of Service Criteria**

| Level of Service | Controlled Delay (sec/veh) TWSC, AWSC and Roundabout Intersections |
|---|---|
| A | ≤ 10 |
| B | > 10 and ≤ 15 |
| C | > 15 and ≤ 25 |
| D | > 25 and ≤ 35 |
| E | > 35 and ≤ 50 |
| F | > 50 |

### Intersection Capacity – Signalized Intersections

The operating Level of Service (LOS) of a signalized intersection is based on the average control delay per vehicle. The control delay per vehicle is estimated for each lane group, combined for each approach and the intersection as a whole. The criteria, i.e., the delays associated with corresponding levels of service for signalized intersections, as specified by the Highway Capacity Manual are shown in Table 3.

**Table 3**
**Signalized Intersection Level of Service Criteria**

| Level of Service | Controlled Delay (sec/veh) Signalized Intersections |
|---|---|
| A | ≤ 10 |
| B | > 10 and ≤ 20 |
| C | > 20 and ≤ 35 |
| D | > 35 and ≤ 55 |
| E | > 55 and ≤ 80 |
| F | > 80 |

Presented in Table 4 are the results of the analysis for the 2019 Existing, 2029 Background and 2029 Build Phases I, II, and III scenarios for the intersections located within the study area. The traffic modeling software Synchro, Ver. 10.0, which utilizes the methodologies of the Highway Capacity Manual for unsignalized and signalized intersection, was used for the analysis portion of this study. The full analysis results printouts from the Synchro software are available in Appendix C.

As shown in Table 4, the proposed development will not have any noticeable effects on the traffic operations within the study area when the recommended mitigation is implemented. Described below is a detailed breakdown of the impacts, if any, on the study area intersections' operations as a result of traffic from the proposed development.

No. 1 – NYS Route 32 (S. Pearl Street) at 1st Avenue/I-787 Exit 2 Ramp
This signalized intersection is operating at an overall LOS 'B' for the morning peak hour and an overall LOS 'C' for the evening peak hour. During the Phase III Build scenario, the intersection will see an increase in delay resulting in the overall LOS to degrade to 'C' during the morning peak hour and 'D' during the evening peak hour. With minor signal timing modifications, the background LOS can be maintained for the Phase III full build scenario. These timing modifications include shifting time to the Off-ramp phase in the morning peak hour and shifting time to the NYS Route 32 phase during the evening peak hour. The traffic signal cycle length was changed from 105 seconds to 75 seconds in the morning and 95 seconds in the evening to optimize the LOS for the intersection. It is recommended that the signal timings at this intersection be monitored through coordination between the applicant and NYSDOT as development occurs in the area to ensure the timings are optimized for the current traffic volumes.

No. 2 – NYS Route 32 (Corning Hill Road) at US Route 9W
This 3-legged actuated signalized intersection operates with an overall LOS 'C' during both the weekday morning and evening peak hours. It will continue to operate at the same overall LOS with the proposed development during the evening peak hour, while some individual movement LOS will see negligible increases and decreases in delay. During the morning peak hour, the overall LOS will drop from a 'C' to a 'D'; however signal timing changes by shifting 2 seconds from the NYS Route 32 phase to the US Route 9W phase approach will maintain existing levels of service for the all build conditions. It should be noted that the northbound thru movement has a volume to capacity (v/c) ratio greater than 1.0 for both the background and build scenarios. It is recommended that the signal timings at this intersection be monitored through coordination between the applicant and NYSDOT as development occurs in the area to ensure the timings are optimized for the current traffic volumes.

No. 3 – NYS Route 32 (S. Pearl Street) at South Port Road
This 3-way signalized intersection operates efficiently today with an overall LOS 'A' during the morning and evening peak hour. However, the southbound left operation for the morning peak hour will start to degrade from a LOS 'B' during the Phase II Build scenario to LOS 'F' for Phase III and degrade from a LOS 'B' during the Phase I build scenario to LOS 'C' and 'E' for Phases II and III, respectively for the evening peak hour. This movement will be a point of entry for a high volume of traffic entering the proposed development; therefore, it is recommended that a dedicated left turn lane for the southbound approach be installed. A new right turn lane pocket for the westbound approach is also recommended to split the traffic exiting the Port to allow better use of the westbound green time from the signal. These roadway improvements along with upgrading the existing traffic signal system to provide a protected southbound left turn movement with a right turn overlap phase for the new travel lanes will allow the intersection to maintain adequate levels of service through the Phase III (Full Build) conditions, as an intersection operating at an overall LOS 'C' during the peak hour is considered to be adequate by NYSDOT, as outlined in the Highway Design Manual, Chapter 5, Appendix 5D, and their guidelines during the NYSDOT highway design report process.

With the recommended improvements, the westbound South Port Road approach will have a LOS 'D' during the morning peak hour and a LOS 'C' for the evening peak hour from the 2029 Background to 2029 Phase III conditions. The overall intersection operations indicate that these improvements will spread delay to all approaches in order to maximize intersection efficiency and improve the overall delay during both peak hours. Prior to site plan approval for the development, an updated traffic analysis would be completed based on the actual proposed site plan in for review and submitted to the Town of Bethlehem and NYSDOT as a part of the site plan approval process.

<u>No. 4 – NYS Route 144 (River Road) at I-87 Exit 22 Ramp</u>

This 3-legged unsignalized intersection is operating at an overall LOS 'A' for both the morning and evening peak hour currently and will continue to do so for all three build scenarios. Despite the addition of the proposed development's traffic, all intersection movements will continue to operate at the same LOS as the 2029 Background scenario for both the morning and evening peak hours. No proposed mitigation is recommended at this intersection as a result of the proposed development.

<u>No. 5 – NYS Route 144 (River Road) at Glenmont Road</u>

This unsignalized intersection is currently operating well today during the evening peak hour. During the morning peak hour, the eastbound left-turn movement is operating with a LOS of 'F' for the background conditions due to the high number of left turn vehicles combined with the heavy northbound traffic on NYS Route 144. This existing condition will continue to operate at similar levels of service for the Build scenarios as well. These vehicles will continue to have some delay as they wait for an acceptable gap in the NYS Route 144 traffic flow (see the Gap Analysis section for additional details). Despite this, the overall LOS for the intersection for the build scenario is a LOS 'B' and LOS 'A' during the morning and evening peak hour, respectively for the high volume of free-flow traffic. The traffic volumes at this intersection will see minor increases from the proposed development in comparison to the Background volumes. No mitigation is recommended at this intersection as the proposed development will not noticeably impact the operations at this intersection. This is further justified later in the signal warrant analysis and gap analysis report sections. Prior to site plan approval, a signal warrant analysis will need to be updated based on the actual proposed site plan in for review and submitted to the Town of Bethlehem and NYSDOT as a part of the site plan approval process.

<u>No. 6 – NYS Route 144 (River Road) at NYS Route 32 (Corning Hill Road)</u>

This intersection is currently operating with an overall LOS 'A' during the morning and evening peak hour. The eastbound left movement will be exceeding/approaching capacity under the 2029 background condition, where it is projected to operate at a LOS 'F' for the morning peak hour and a LOS 'E' for the evening peak hour. Through Phase I of the development there will be a negligible impact on the operating conditions; however, to maintain adequate levels of service from Phase II through the full build scenario, it is recommended that a traffic signal be installed at this intersection (see the Signal Warrant section of this report for additional details). After installation of a new signal, under the Phase III conditions the eastbound left operation is raised from a LOS 'F' to LOS 'C' for both morning and evening peak hours.

The timing of the installation of a traffic signal at this intersection should be based on the magnitude of the site plan for the initial proposed development and potential phasing of the proposed development within the site. Prior to site plan approvals, a signal warrant analysis should be updated based on the actual proposed site plan in for review and submitted to the Town of Bethlehem and NYSDOT as a part of the site plan approval process.

No. 7 – Church Street at Broadway

This stop sign controlled 'T' intersection operates well today with an overall LOS 'A' in the morning and evening peak hour. The intersection will continue to operate well with the additional proposed development traffic, with no individual movement falling below LOS 'C'. No mitigation is recommended at this intersection.

No. 8 – Glenmont/Feura Bush Road at US Route 9W

This current signalized intersection is in the design stage to be converted to a roundabout by Spring 2021. After correspondence with the engineering firm designing the roundabout, Creighton Manning Engineers, LLP (CME), it was found that the minimal amount of site generated traffic entering this intersection has already been incorporated into the background traffic analysis during the analysis and design of the new roundabout. The level of service table from the Traffic Assessment Memo prepared by CME for the alternatives reviewed for the US Route 9W/Glenmont Road/Feura Bush Road intersection project are included in Appendix B. A detailed traffic analysis of the existing intersection is not warranted, given the conversion to a roundabout. Through coordination with CME, oversized load accommodations through the roundabout are part of the design criteria which is still being progressed through the design phase of the project with NYSDOT.

No. 9 – Clapper Road at NYS Route 144 (River Road)

This unsignalized intersection is currently operating at an overall LOS 'A' for both morning and evening peak hour and will continue to do so for all three build scenarios. The eastbound left movement will see an increase in delay from Phase II to Phase III, changing from a LOS 'B' to LOS 'C' for both morning and evening peak hours; however, this is considered an acceptable level of service, as previously noted. Because of the low volume of existing and site-generated traffic anticipated to use Clapper Road, the remaining intersection movements will continue to operate at the same LOS as the existing conditions for both morning and evening peak hours. No proposed mitigation is recommended at this intersection as a result of the proposed development.

No. 10 – I-787/I-87 Exit 23 Interchange at US Route 9W

These signalized intersections are currently operating at LOS 'B' and LOS 'C' levels of service during the morning peak hour for the I-787/I-87 Exit 23 On and Off Ramp, respectively. They will continue to operate at these overall levels of service through all three build scenarios during the morning peak hour. No noticeable impacts are anticipated at these intersections as a result of the proposed development.

During the evening peak hour, the I-787/I-87 Exit 23 On Ramp is currently operating at a LOS 'F' while the I-787/I-87 Exit 23 Off Ramp is at a LOS 'C'. The on ramp will continue to operate at the same levels of service for all movements through the build phases with the exception of the northbound left movement, which will experience an increase in delay from Phase II to Phase III, changing from a LOS 'E' to a LOS 'F'. The I-787/I-87 Exit 23 Off Ramp will maintain the same levels of service as the background conditions, through all three build phases. With minor signal timing modifications, the overall background LOS can be maintained for the Phase III full build scenario for the off ramp and improved from a LOS 'F' to LOS 'E' for the on ramp. These timing modifications include shifting time to the north and southbound approaches as well as shortening the traffic signal cycle length from 135 to 130 seconds. It is recommended that the signal timings for this intersection continue to be monitored by NYSDOT as development occurs in the area to ensure the timings are optimized for the current traffic volumes as it is operating near capacity.

No. 11-Wemple Road at NYS Route 144 (River Road)

Wemple Road splits and has two intersections with NYS Route 144 (River Road), because of this, each access drive was analyzed separately in order to more accurately model existing and future conditions. Both of these unsignalized intersections are currently operating at an overall LOS ‘A’ for both morning and evening peak hour and will continue to do so for all three build scenarios. The eastbound left movement for the northern access drive will see an increase in delay from Phase I to Phase II, changing from a LOS ‘B’ to LOS’C’ during the evening peak hour; however, this is considered an acceptable level of service as previously noted. Because no site-generated traffic is anticipated to utilize Wemple Road, the remaining intersection movements will continue to operate at the same LOS as the existing conditions for both morning and evening peak hours. No proposed mitigation is recommended at this intersection as a result of the proposed development.

No. 12– NYS Route 144 at Proposed Site Driveway

The proposed site access drive was modeled as two lane road with single entering and exiting lanes, under stop sign control for the exiting traffic. The driveway will be restricted to car traffic only as all truck traffic will be directed to South Port Road and Church Street. This will be accomplished by including signage prohibiting trucks from using this entrance as well as enforcement by the Port, the Port’s tenants and local law enforcement. The proposed driveway will have a negligible impact to the traveling public on NYS Route 144 as this will be a free movement. The level of service summary shows that this intersection will operate efficiently for all three phases of development, with an overall LOS ‘A’ for both morning and evening peak hours. In addition, no movement at this intersection will operate below a LOS ‘C’ for the morning and evening peak hour. A signal was not warranted for build phase I, II, or III, which is detailed later in the signal warrant report section.

**TABLE 4 - INTERSECTION LEVEL OF SERVICE TABLE**

| Study Intersection | Approach and Movement | | MORNING PEAK HOUR 2019 EXISTING Delay | 2019 EXISTING LOS | 2029 BACKGROUND Delay | 2029 BACKGROUND LOS | 2029 BUILD-PHASE I Delay | 2029 BUILD-PHASE I LOS | 2029 BUILD-PHASE II Delay | 2029 BUILD-PHASE II LOS | 2029 BUILD-PHASE III Delay | 2029 BUILD-PHASE III LOS | 2029 BUILD- PHASE III - MITIGATION Delay | 2029 BUILD- PHASE III - MITIGATION LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NYS Route 32 at First Avenue/I-787 Exit 2 Ramp *(Signalized )* | Eastbound | L-T-R | 8.4 | A | 8.4 | A | 8.4 | A | 8.4 | A | 8.4 | A | 2.4 | A |
| | Westbound | L | 9.7 | A | 9.4 | A | 10.5 | B | 11.3 | B | 13.1 | B | 17.0 | B |
| | | T-R | 3.4 | A | 3.4 | A | 3.5 | A | 3.6 | A | 3.8 | A | 4.7 | A |
| | Northbound | L-T | 45.1 | D | 45.1 | D | 44.7 | D | 44.5 | D | 43.4 | D | 29.2 | C |
| | Southbound | T-R | 54.5 | D | 54.5 | D | 54.6 | D | 54.7 | D | 54.8 | D | 36.1 | D |
| | **OVERALL** | | **18.5** | **B** | **18.6** | **B** | **19.1** | **B** | **19.7** | **B** | **20.8** | **C** | **18.6** | **B** |
| NYS Route 32 at US Route 9W *(Signalized )* | Westbound | L | 55.1 | E | 56.5 | E | 57.7 | E | 58.9 | E | 61.0 | E | 72.0 | E |
| | | R | 12.7 | B | 12.8 | B | 12.8 | B | 13.0 | B | 13.1 | B | 14.9 | B |
| | Northbound | T | 35.8 | D | 49.3 | D | 52.1 | D | 54.9 | D | 60.0 | E | 48.8 | D |
| | | R | 4.7 | A | 5.1 | A | 5.2 | A | 5.3 | A | 5.6 | A | 4.9 | A |
| | Southbound | L | 34.3 | C | 36.0 | D | 40.6 | D | 44.8 | D | 52.9 | D | 52.2 | D |
| | | T | 4.7 | A | 4.8 | A | 4.7 | A | 4.7 | A | 4.7 | A | 4.0 | A |
| | **OVERALL** | | **25.7** | **C** | **33.7** | **C** | **35.6** | **D** | **37.3** | **D** | **40.6** | **D** | **34.4** | **C** |
| NYS Route 32 at South Port Road *(Un-Signalized)* | Westbound | L | 22.1 | C | 22.3 | C | 21.5 | C | 22.8 | C | 21.8 | C | 47.7 | D |
| | | R | | | | | | | | | | | 18.4 | B |
| | Northbound | T-R | 5.7 | A | 6.3 | A | 8.9 | A | 14.7 | B | 15.4 | B | 19.2 | B |
| | Southbound | L | 3.7 | A | 4.0 | A | 6.4 | A | 18.5 | B | 158.1 | F | 13.5 | B |
| | | T | | | | | | | | | | | 2.5 | A |
| | **OVERALL** | | **6.0** | **A** | **6.5** | **A** | **9.1** | **A** | **16.5** | **B** | **59.5** | **E** | **16.4** | **B** |
| NYS Route 144 at I-87 Exit 22 Ramp *(Un-Signalized)* | Northbound | T-L | 8.1 | A | 8.3 | A | 8.3 | A | 8.3 | A | 8.3 | A | | |
| | Eastbound | L | 14.5 | B | 16.3 | C | 17.2 | C | 18.4 | C | 21.1 | C | | |
| | **OVERALL** | | **5.6** | **A** | **6.4** | **A** | **6.6** | **A** | **6.8** | **A** | **7.5** | **A** | | |
| NYS Route 144 at Glenmont Road *(Un-Signalized)* | Eastbound | L-R | 39.6 | E | 56.2 | F | 59.3 | F | 62.7 | F | 68.7 | F | | |
| | Northbound | T-L | 7.9 | A | 8.0 | A | 8.0 | A | 8.0 | A | 8.0 | A | | |
| | **OVERALL** | | **7.7** | **A** | **10.6** | **B** | **11.3** | **B** | **12.0** | **B** | **13.3** | **B** | | |
| NYS Route 144 at NYS Route 32 *(Un-Signalized/Signalized)* | Northbound | T-L | 8.2 | A | 8.3 | A | 8.3 | A | 8.3 | A | 8.4 | A | 14.8 | B |
| | Eastbound | L | 41.0 | E | 54.3 | F | 64.5 | F | 73.7 | F | 119.9 | F | 31.1 | C |
| | | R | 10.3 | B | 10.6 | B | 10.6 | B | 10.5 | B | 10.8 | B | 8.0 | A |
| | Southbound | T-R | | | | | | | | | | | 5.5 | A |
| | **OVERALL** | | **4.6** | **A** | **5.8** | **A** | **7.3** | **A** | **9.0** | **A** | **15.5** | **C** | **14.2** | **B** |
| Church Street at Broadway *(Un-Signalized)* | Westbound | L | 12.7 | B | 13.0 | B | 13.6 | B | 14.2 | B | 15.5 | C | | |
| | | R | 8.8 | A | 8.8 | A | 8.9 | A | 8.9 | A | 9.0 | A | | |
| | Southbound | L | 7.5 | A | 7.5 | A | 7.5 | A | 7.6 | A | 7.6 | A | | |
| | **OVERALL** | | **6.4** | **A** | **6.6** | **A** | **6.8** | **A** | **7.0** | **A** | **7.6** | **A** | | |
| Clapper Road at NYS Route 144 (River Road) *(Un-Signalized)* | Northbound | L | 7.5 | A | 7.6 | A | 7.6 | A | 7.6 | A | 7.7 | A | | |
| | Eastbound | L | 11.9 | B | 12.8 | B | 13.4 | B | 14.2 | B | 15.1 | C | | |
| | **OVERALL** | | **0.4** | **A** | **0.5** | **A** | **0.5** | **A** | **0.6** | **A** | **0.7** | **A** | | |
| I-787/I-87 Exit 23 On Ramp at US Route 9W) *(Signalized)* | Northbound | L | 12.1 | B | 15.1 | B | 15.9 | B | 16.7 | B | 18.1 | B | | |
| | | T | 1.3 | A | 1.3 | A | 1.3 | A | 1.3 | A | 1.4 | A | | |
| | Southbound | T | 23.1 | C | 25.5 | C | 25.9 | C | 26.3 | C | 27.1 | C | | |
| | **OVERALL** | | **12.3** | **B** | **13.8** | **B** | **14.1** | **B** | **14.4** | **B** | **15.1** | **B** | | |
| I-787/I-87 Exit 23 Off Ramp at US Route 9W) *(Signalized)* | Eastbound | L | 71.1 | E | 82.0 | F | 82.0 | F | 82.0 | F | 82.0 | F | | |
| | | R | 11.1 | B | 12.5 | B | 12.6 | B | 12.8 | B | 12.9 | B | | |
| | Northbound | T | 14.6 | B | 14.8 | B | 14.9 | B | 14.9 | B | 15.0 | B | | |
| | Southbound | T | 4.2 | A | 4.2 | A | 4.2 | A | 4.3 | A | 4.3 | A | | |
| | **OVERALL** | | **25.5** | **C** | **28.6** | **C** | **28.5** | **C** | **28.4** | **C** | **28.2** | **C** | | |
| NYS Route 144 at Wemple Road North *(Un-Signalized )* | Northbound | L-T | 7.6 | A | 7.6 | A | 7.6 | A | 7.6 | A | 7.7 | A | | |
| | Eastbound | L-R | 15.9 | C | 16.7 | C | 17.0 | C | 17.4 | C | 18.1 | C | | |
| | **OVERALL** | | **1.2** | **A** | **1.2** | **A** | **1.2** | **A** | **1.2** | **A** | **1.2** | **A** | | |
| NYS Route 144 at Wemple Road South *(Un-Signalized )* | Northbound | L-T | 7.6 | A | 7.7 | A | 7.7 | A | 7.7 | A | 7.8 | A | | |
| | Eastbound | L-R | 10.2 | B | 10.3 | B | 10.4 | B | 10.4 | B | 10.6 | B | | |
| | **OVERALL** | | **1.0** | **A** | **1.1** | **A** | **1.1** | **A** | **1.0** | **A** | **1.0** | **A** | | |
| NYS Route 144 at Proposed Site Driveway *(Un-Signalized)* | Westbound | L | | | | | 13.9 | B | 14.5 | B | 15.5 | C | | |
| | Southbound | L | | | | | 8.5 | A | 8.6 | A | 8.7 | A | | |
| | **OVERALL** | | | | | | **0.3** | **A** | **0.6** | **A** | **1.1** | **A** | | |

**TABLE 4 - INTERSECTION LEVEL OF SERVICE TABLE**

| Study Intersection | Approach and Movement | | EVENING PEAK HOUR | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2019 EXISTING | | 2029 BACKGROUND | | 2029 BUILD-PHASE I | | 2029 BUILD-PHASE II | | 2029 BUILD- PHASE III | | 2029 BUILD-PHASE III - MITIGATION | |
| | | | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| NYS Route 32 at First Avenue/I-787 Exit 2 Ramp (*Signalized* ) | Eastbound | L-T-R | 17.6 | B | 19.1 | B | 19.1 | B | 19.1 | B | 19.1 | B | 31.8 | C |
| | Westbound | L | 26.5 | C | 31.8 | C | 34.2 | C | 36.9 | D | 44.0 | D | 34.8 | C |
| | | T-R | 7.6 | A | 8.0 | A | 8.1 | A | 8.1 | A | 8.3 | A | 5.7 | A |
| | Northbound | L-T | 37.9 | D | 37.4 | D | 37.9 | D | 38.4 | D | 38.9 | D | 37.2 | D |
| | Southbound | T-R | 53.7 | D | 53.3 | D | 53.6 | D | 53.8 | D | 53.5 | D | 54.1 | D |
| | **OVERALL** | | **28.6** | **C** | **32.0** | **C** | **33.7** | **C** | **35.5** | **D** | **40.2** | **D** | **34.6** | **C** |
| NYS Route 32 at US Route 9W (*Signalized* ) | Westbound | L | 33.6 | C | 36.7 | D | 37.2 | D | 38.6 | D | 39.6 | D | | |
| | | R | 16.2 | B | 17.8 | B | 17.8 | B | 18.1 | B | 18.9 | B | | |
| | Northbound | T | 26.6 | C | 26.5 | C | 26.6 | C | 29.1 | C | 29.3 | C | | |
| | | R | 4.8 | A | 4.8 | A | 4.8 | A | 4.9 | A | 4.9 | A | | |
| | Southbound | L | 14.9 | B | 16.1 | B | 17.6 | B | 21.2 | C | 24.4 | C | | |
| | | T | 18.3 | B | 18.6 | B | 18.5 | B | 17.9 | B | 17.8 | B | | |
| | **OVERALL** | | **22.1** | **C** | **22.6** | **C** | **22.7** | **C** | **23.5** | **C** | **23.7** | **C** | | |
| NYS Route 32 at South Port Road (*Signalized)* | Westbound | L | 28.6 | C | 28.8 | C | 24.9 | C | 25.6 | C | 30.7 | C | 31.8 | C |
| | | R | | | | | | | | | | | 1.3 | A |
| | Northbound | T-R | 4.0 | A | 4.2 | A | 5.5 | A | 6.7 | A | 8.5 | A | 5.7 | A |
| | Southbound | L | 9.5 | A | 11.1 | B | 17.4 | B | 26.1 | C | 65.2 | E | 4.6 | A |
| | | T | | | | | | | | | | | 13.7 | B |
| | **OVERALL** | | **9.5** | **A** | **10.6** | **B** | **15.3** | **B** | **21.4** | **C** | **46.0** | **D** | **11.6** | **B** |
| NYS Route 144 at I-87 Exit 22 Ramp *(Un-Signalized)* | Northbound | T-L | 8.4 | A | 8.6 | A | 8.7 | A | 8.7 | A | 8.8 | A | | |
| | Eastbound | L | 11.9 | B | 12.6 | B | 12.7 | B | 12.9 | B | 13.2 | B | | |
| | **OVERALL** | | **6.0** | **A** | **6.3** | **A** | **6.3** | **A** | **6.2** | **A** | **6.2** | **A** | | |
| NYS Route 144 at Glenmont Road *(Un-Signalized)* | Eastbound | L-R | 20.3 | C | 22.8 | C | 23.5 | C | 24.2 | C | 25.6 | D | | |
| | Northbound | T-L | 9.5 | A | 9.7 | A | 9.7 | A | 9.7 | A | 9.8 | A | | |
| | **OVERALL** | | **2.2** | **A** | **2.3** | **A** | **2.5** | **A** | **2.6** | **A** | **2.8** | **A** | | |
| NYS Route 144 at NYS Route 32 *(Un-Signalized/Signalized)* | Northbound | T-L | 11.1 | B | 11.5 | B | 11.6 | B | 11.8 | B | 12.1 | B | 5.9 | A |
| | Eastbound | L | 32.3 | D | 37.2 | E | 41.5 | E | 47.0 | E | 60.0 | F | 30.3 | C |
| | | R | 18.7 | C | 20.1 | C | 20.5 | C | 20.8 | C | 21.5 | C | 10.2 | B |
| | Southbound | T-R | | | | | | | | | | | 16.9 | B |
| | **OVERALL** | | **2.0** | **A** | **2.1** | **A** | **2.5** | **A** | **2.9** | **A** | **3.9** | **A** | **14.8** | **B** |
| Church Street at Broadway *(Un-Signalized)* | Westbound | L | 11.0 | B | 11.2 | B | 11.5 | B | 11.8 | B | 12.3 | B | | |
| | | R | 9.3 | A | 9.4 | A | 9.5 | A | 9.5 | A | 9.7 | A | | |
| | Southbound | L | 7.7 | A | 7.7 | A | 7.7 | A | 7.8 | A | 7.9 | A | | |
| | **OVERALL** | | **3.1** | **A** | **3.1** | **A** | **3.2** | **A** | **3.2** | **A** | **3.3** | **A** | | |
| Clapper Road at NYS Route 144 (River Road) *(Un-Signalized)* | Northbound | L | 8.3 | A | 8.3 | A | 8.4 | A | 8.4 | A | 8.5 | A | | |
| | Eastbound | L | 13.0 | B | 13.6 | B | 14.0 | B | 14.5 | B | 15.1 | C | | |
| | **OVERALL** | | **0.4** | **A** | **0.4** | **A** | **0.5** | **A** | **0.5** | **A** | **0.5** | **A** | | |
| I-787/I-87 Exit 23 On Ramp at US Route 9W (Signalized) | Northbound | L | 95.3 | F | 66.2 | E | 68.6 | E | 72.8 | E | 82.5 | F | 110.3 | F |
| | | T | 0.4 | A | 0.4 | A | 0.4 | A | 0.4 | A | 0.4 | A | 0.4 | A |
| | Southbound | T | 100.1 | F | 166.8 | F | 175.0 | F | 179.7 | F | 180.5 | F | 90.3 | F |
| | **OVERALL** | | **81.3** | **F** | **121.7** | **F** | **127.2** | **F** | **130.6** | **F** | **132.0** | **F** | **77.1** | **E** |
| I-787/I-87 Exit 23 Off Ramp at US Route 9W (*Signalized* ) | Eastbound | L | 57.7 | E | 56.6 | E | 56.6 | E | 56.6 | E | 56.1 | E | 72.0 | E |
| | | R | 13.0 | B | 14.6 | B | 15.4 | B | 16.1 | B | 17.3 | B | 14.3 | B |
| | Northbound | T | 6.6 | A | 7.1 | A | 7.1 | A | 7.2 | A | 7.4 | A | 6.0 | A |
| | Southbound | T | 38.3 | D | 57.7 | E | 57.7 | E | 57.7 | E | 57.6 | E | 36.5 | D |
| | **OVERALL** | | **27.4** | **C** | **37.4** | **D** | **37.3** | **D** | **37.2** | **D** | **37.0** | **D** | **27.0** | **C** |
| NYS Route 144 at Wemple Road North (Un-*Signalized* ) | Northbound | L-T | 8.3 | A | 8.4 | A | 8.4 | A | 8.4 | A | 8.5 | A | | |
| | Eastbound | L-R | 14.1 | B | 14.5 | B | 14.8 | B | 15.1 | C | 15.6 | C | | |
| | **OVERALL** | | **0.5** | **A** | **0.5** | **A** | **0.4** | **A** | **0.4** | **A** | **0.4** | **A** | | |
| NYS Route 144 at Wemple Road South *(Un-Signalized)* | Northbound | L-T | 8.3 | A | 8.7 | A | 8.7 | A | 8.8 | A | 8.9 | A | | |
| | Eastbound | L-R | 11.8 | B | 12.8 | B | 13.0 | B | 13.2 | B | 13.5 | B | | |
| | **OVERALL** | | **0.8** | **A** | **0.8** | **A** | **0.7** | **A** | **0.7** | **A** | **0.7** | **A** | | |
| NYS Route 144 at Proposed Site Driveway *(Un-Signalized)* | Westbound | L | | | | | 12.5 | B | 13.1 | B | 14.3 | B | | |
| | Southbound | L | | | | | 7.7 | A | 7.7 | A | 7.8 | A | | |
| | **OVERALL** | | | | | | **0.5** | **A** | **0.9** | **A** | **1.6** | **A** | | |

**Truck Impact Analysis**

Due to the nature of the proposed development, a separate review of the proposed truck traffic was assessed. Truck traffic in the area was analyzed separately from the total traffic volumes as the truck peak period in the study area is relatively consistent between the hours of 9:00 AM and 1:00 PM which do not coincide with the overall peak hour volumes on the roadway network.

Truck access to the site will be restricted to the northern truck/rail entrance via a bridge crossing Normans Kill and connecting to the existing Normanskill St before turning onto NYS Route 32 at South Port Road. This restriction was proposed by the Town of Bethlehem as it would allow all trucks that require access onto NYS Route 32 to have a signalized entrance for safety reasons and to further discourage trucks from utilizing Glenmont Road and other primarily residential side roads to the south and west.

An alternative truck distribution scenario was analyzed to assess the possibility of allowing trucks to utilize the southern driveway. This alternative analysis assumed that 15% of trucks would enter and exit the southern driveway from the south, while 5% would enter and exit from the north. As shown in Figure 14a and 15a, included in Appendix B, allowing trucks to use the southern driveway reduces truck traffic on NYS Route 144 between the north and south driveways by roughly 3 trucks during the AM peak hour, 2 trucks during the PM peak hour, and 4 trucks during the Midday peak hour, while increasing truck traffic on NYS Route 32 by approximately 3 trucks during the AM peak hour, as many as 3 trucks during the PM peak hour, and as many as 5 trucks during the Midday peak hour. There is no change in truck traffic on Glenmont Road, as both distribution scenarios assumed no site-generated trucks would use this route.

Because of the small variations in truck volumes between the two distribution scenarios, there would be a negligible difference in impact on the existing roadway network, from an intersection capacity standpoint. Other factors besides intersection capacity play a role in determining if a full access southern driveway is feasible. Based on the 55 mph posted speed limit along NYS Route 144, a sight distance of 930 ft is required for a truck to perform a left-turn out of the driveway. The required sight distance exceeds the available sight distance of 500 ft which is restricted by a horizontal curve of NYS Route 144 to the north. Without enough available sight distance, trucks exiting the site do not have enough time to safely perform the left turn. It is not recommended that trucks utilize this entrance due to the sight distance restrictions.

Truck Volume Assessment

The projected truck trip distribution was established based on distributions from the existing Port of Albany site and given the proposed new southern driveway onto NYS Route 144 will have a truck restriction. This distribution was compared with other truck studies recently completed in the area, including South Albany Truck Traffic completed by CME dated January 16, 2017 and The City of Albany S. Pearl Heavy Vehicle Travel Pattern Study completed by the Capital District Transportation Committee dated May 2018 to ensure the proposed traffic distributions were consistent with the results of these studies. These trip distribution percentages were used to assign the trips generated by the proposed project. See Figure 14 – Truck Trip Distribution Percentages.

Data from other studies provided by the town including the Albany South End Community Air Quality Screening, completed by the New York State Department of Environmental Conservation (NYSDEC), dated August 14, 2014, and the Albany South End Study Progress Update, also completed by NYSDEC dating January 10, 2018 were not used as they did not contain any information related to the volume of truck traffic in the area useful for this TIS, and instead focused on the air quality in and around the Albany South End Community.

As with the total traffic, the number of site-generated trucks was based on the current Port of Albany's truck generation. A truck generation rate was calculated utilizing the turning movement counts collected as part of the TIS and included in Appendix B for the morning and evening peak hour timeframes. This rate was calculated for the existing Port on a peak hour trip per building square foot basis and was analyzed for the Phase III (Full Build) scenario to assess the overall project's impact on truck traffic volumes.

Shown in Table 5 and Figure 15 are the resulting truck trip generation volumes calculated for the proposed project.

**Table 5 – Truck Trip Generation**

| Type of Land Use | ITE Code | Unit | | *Weekday Morning Peak | | | *Weekday Evening Peak | | | Mid-Day Peak | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| Based on Existing Port of Albany Truck Traffic Generation | NA | 1,130 | 1000 SF | Generation Rate = | | 0.13 | Generation Rate = | | 0.07 | Generation Rate = | | 0.13 |
| | | | | 51% | 49% | 100% | 56% | 44% | 100% | 52% | 48% | 100% |
| | | | | 75 | 72 | 147 | 42 | 33 | 75 | 78 | 73 | 151 |
| **Total Projected Trips** | | | | **75** | **72** | **147** | **42** | **33** | **75** | **78** | **73** | **151** |

* = Weekday morning and evening peak hours represent the peak hour for all vehicles on the roadway network.

The midday peak was established using the truck peak hour data from the previously referenced South Albany Truck Traffic report. Because midday truck traffic volumes were not recorded or necessary as a part of the capacity analysis, the truck volume data from the previous report was used as it was thorough, previously reviewed, and less than 3 years old. The peak truck traffic will be on the road during the midday hours where overall traffic volumes are approximately 45% less than the morning peak hour and 42% less than the evening peak hour, based on 24-hour tube count data NYS Route 144; included in Appendix A. The employee peak hour and the truck peak hour are not anticipated to occur during the same timeframes. As a result, a capacity analysis for the truck peak hours is not useful as the roadway network has the capacity during the midday truck peak. Table 6 shows from a qualitative standpoint, the anticipated impact from the proposed development related to the volume of trucks during the midday peak timeframe.

**Table 6 – Projected Truck Volumes (Current Truck Distribution)**

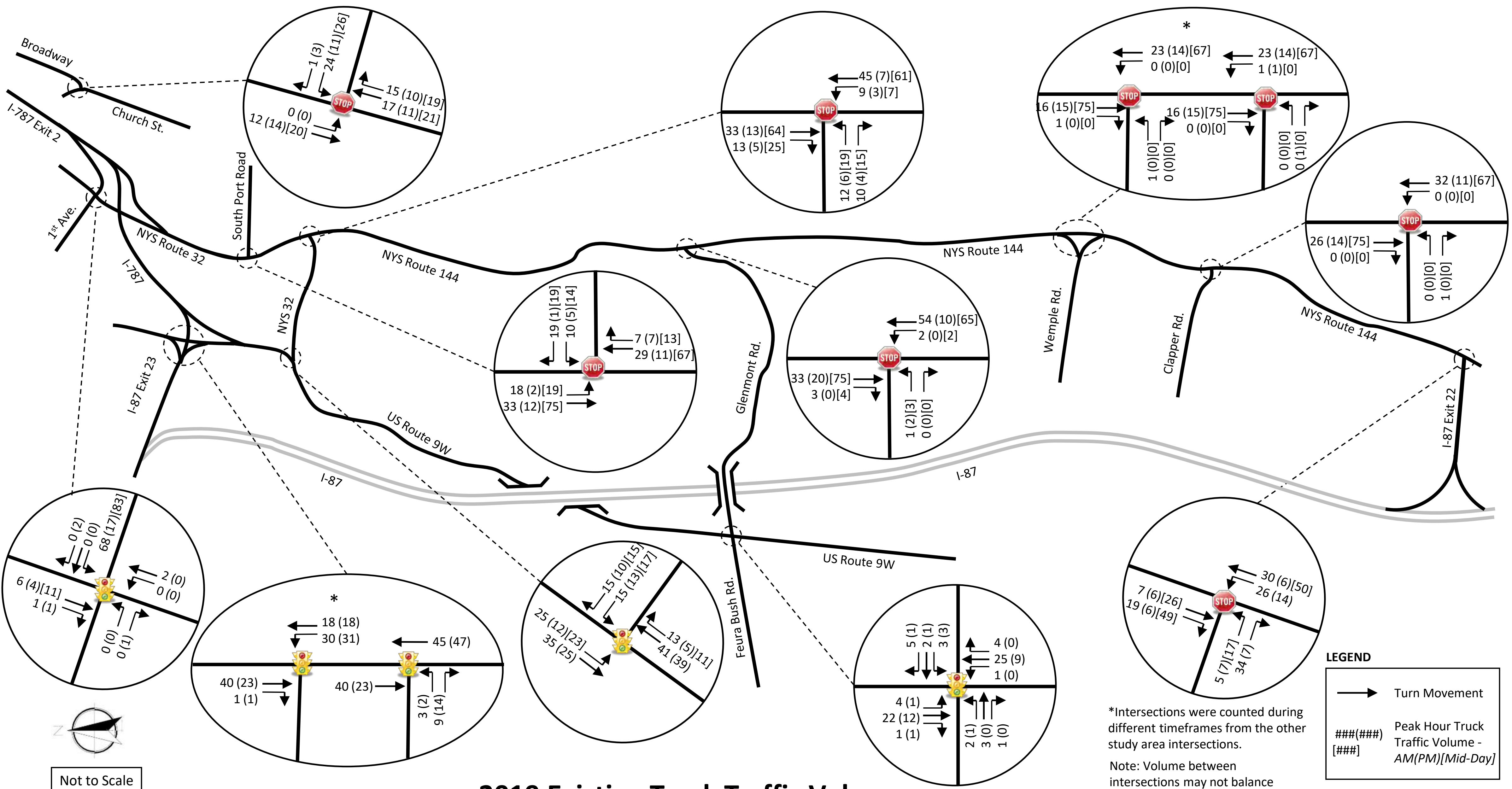
**MID-DAY PEAK HOUR**

| ROAD SEGMENT | Existing Truck Volume | | Proposed Truck Volume | | % Increase | |
|---|---|---|---|---|---|---|
| | NB/EB | SB/WB | NB/EB | SB/WB | | |
| NYS Route 32 from NYS Route 144 to US Route 9W (East/West) | 34 | 32 | 42 | 39 | 23.5% | 21.9% |
| Glenmont Rd. from NYS Route 144 to US Route 9W (East/West) | 3 | 6 | 3 | 6 | 0.0% | 0.0% |
| NYS Route 32 from 1st Ave. to South Port Rd. (North/South) | 83 | 86 | 109 | 111 | 31.3% | 29.1% |
| NYS Route 144 from NYS Route 32 to Glenmont Rd. (North/South) | 68 | 79 | 76 | 86 | 11.8% | 8.9% |
| NYS Route 144 from Glenmont Rd. to Clapper Rd. (North/South) | 67 | 75 | 75 | 82 | 11.9% | 9.3% |
| NYS Route 144 from Clapper Rd. to I-87 Exit 22 (North/South) | 67 | 75 | 75 | 82 | 11.9% | 9.3% |

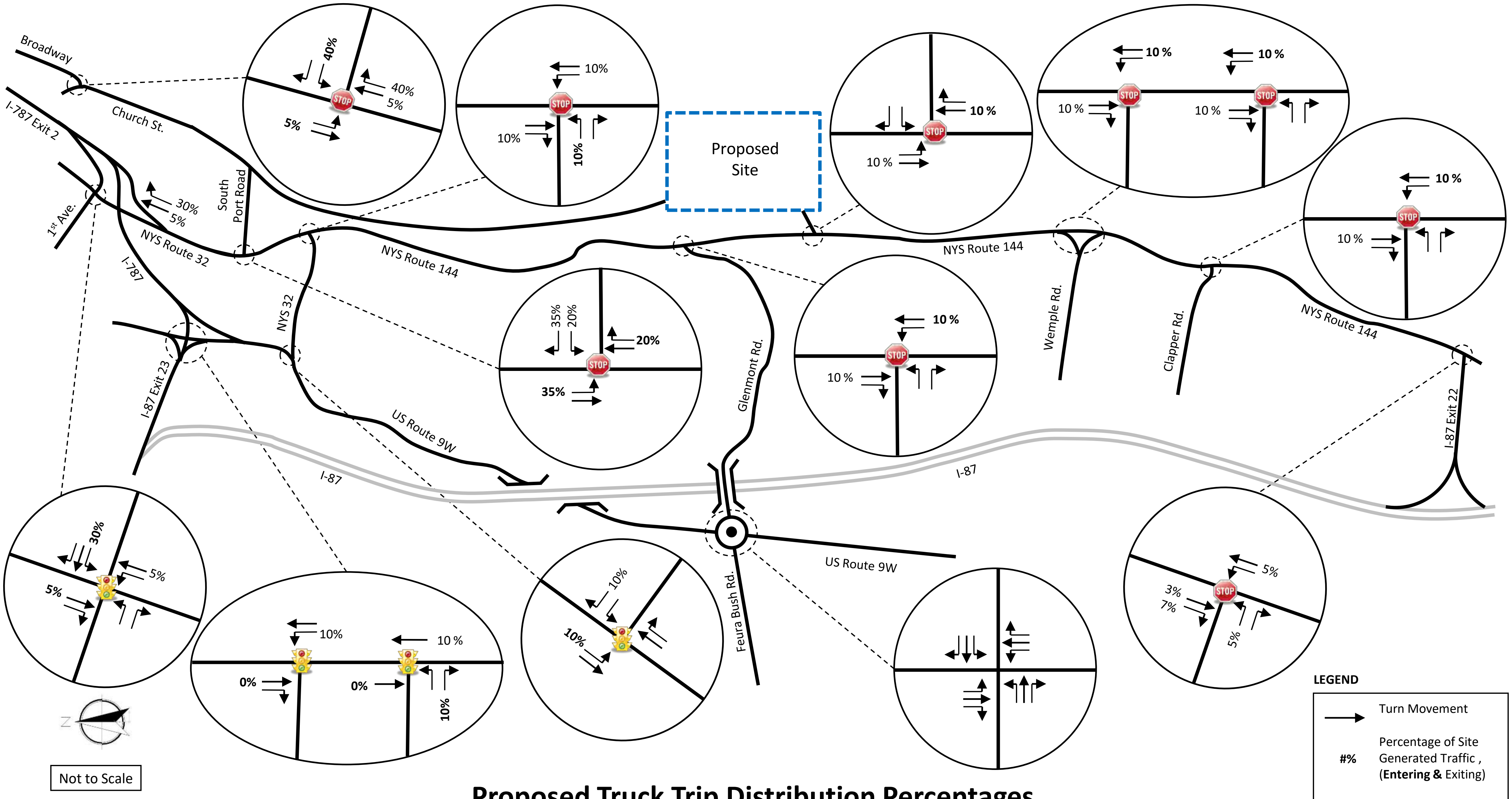
Based on this information the proposed development will increase the number of trucks on the surrounding roadway network from 8.9% to 31.3% during the peak truck timeframe (Midday), while no increase in trucks is anticipated on Glenmont Road.

As shown in Figure 14, 45% of trucks entering and exiting the proposed development are anticipated to utilize the Broadway/Church Street intersection to the north based on current truck patterns. This route provides free access to and from I-787 with minimal disturbance to the surrounding area, as it is fronted by several industrial and commercial businesses. The remaining 55% of trucks entering and exiting the site from the north (35%), as well as the west (10%) and south (10%), which pass through residential areas on their way to/from the South Port Road access. In order to minimize truck noise along these routes, it is recommended that signage be installed restricting the use of compression braking within these residential areas. Other signage clarifying the intended truck routes should be installed to prevent heavy vehicles from accidentally or intentionally using neighborhood streets to access the site, as outlined in the Albany County Commercial Transportation Access Study, completed by CME dated April 5, 2002.

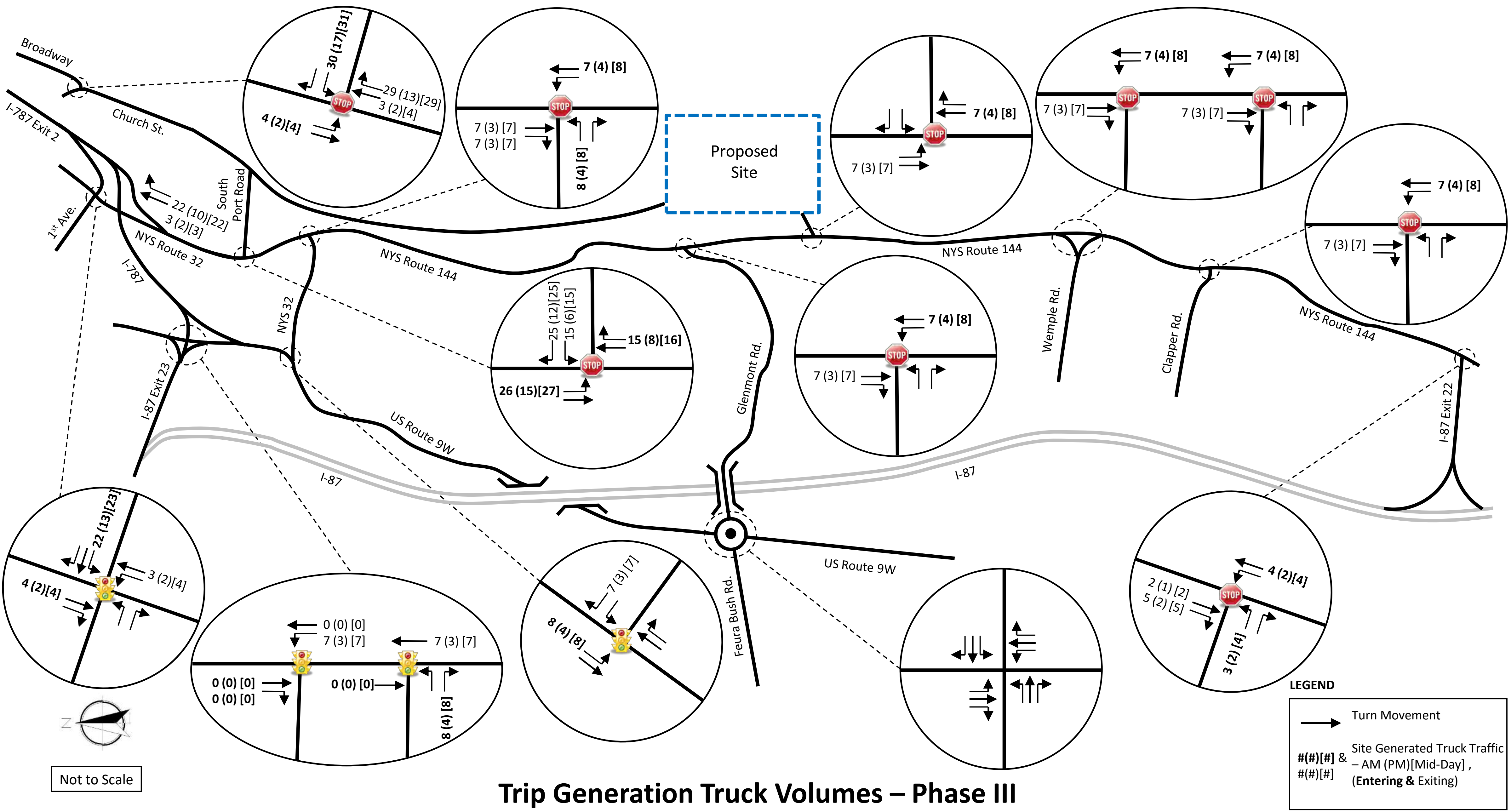
Oversized loads may be required access to/from the proposed Port Expansion site in a similar manner to the existing Port site. These deliveries require a specific traffic control plan for the intended route developed on a case by case basis with the approval of NYSDOT and any other municipality that has jurisdiction on the roads on which the oversized load is traveling. A general oversized truck route to the GE site is in development by CME Associates and is included in Appendix B for reference.




# 2019 Existing Truck Traffic Volumes




## Proposed Truck Trip Distribution Percentages




## Trip Generation Truck Volumes – Phase III

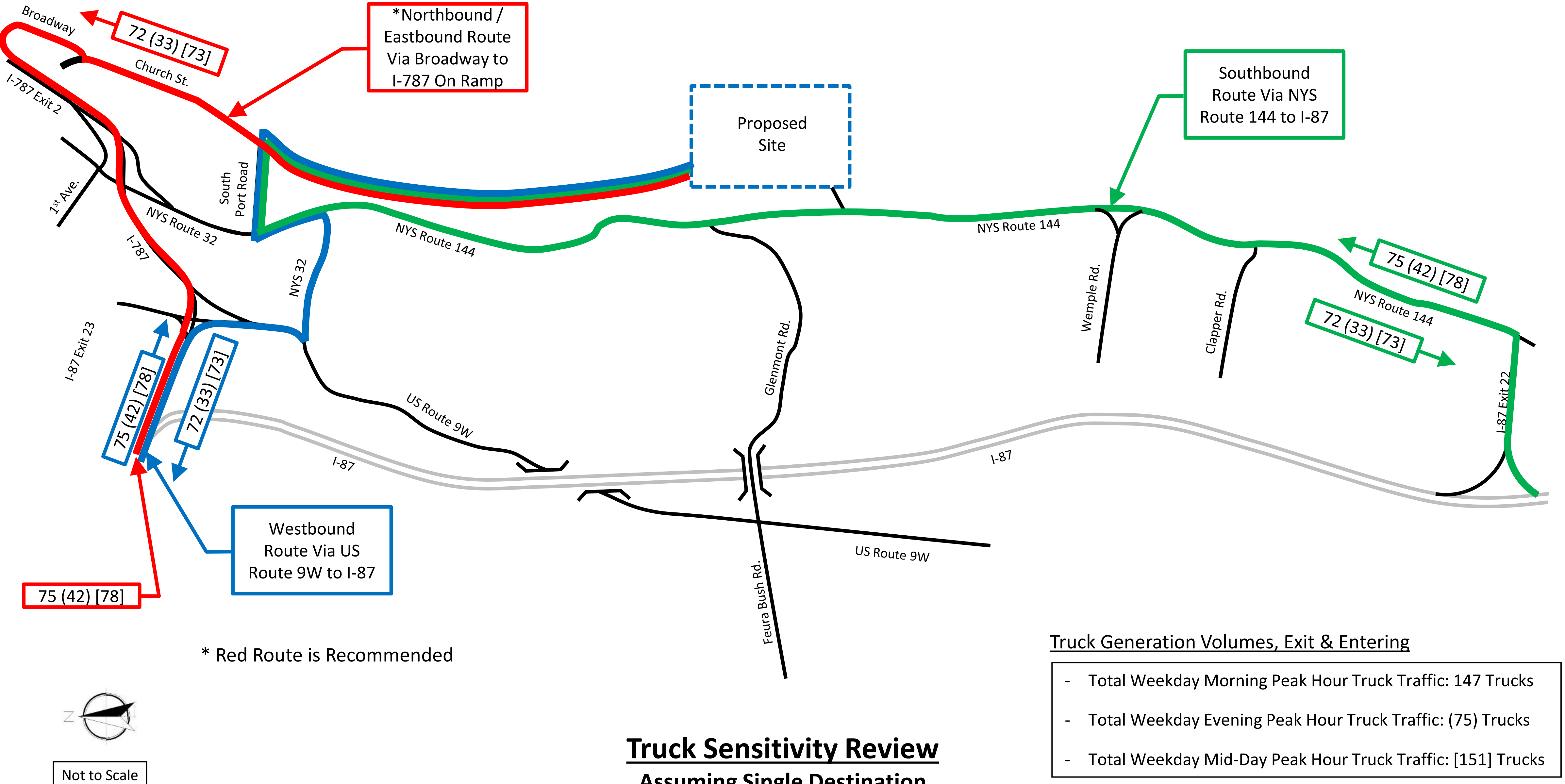
Truck Sensitivity Analysis

To assess the impact of the increased truck traffic on the surrounding roadway network, a sensitivity analysis was performed assuming 100% of all the trucks entering and exiting the site would be restricted to a single route. Three options were assessed: A north/eastbound route via I-787 at Broadway, a westbound route via I-87 Interchange 23, and a southbound route, traveling via NYS Route 144 to I-87 Interchange 22. These routes were modeled in the traffic software Synchro Ver. 10.0, and their LOS compared against the 2029 Phase III LOS, assuming all recommended mitigation efforts were in place. These routes are shown on Figure 16, the results table is included in Appendix B and the Synchro printouts of this analysis are included in Appendix C.

Northbound/Eastbound Route:
When assuming 100% of the site-generated trucks traveling to/from the north/east via I-787 at Church/Broadway, as shown by the red line in Figure 16, there is only a slight degradation of service during the morning peak hour, dropping from a LOS ‘A’ to LOS ‘B’, while all other approaches will experience negligible increases in delay. This is the recommended truck route, should the tenant utilize a single trucking route.

Southbound Route:
For the southbound route, as shown by the green line in Figure 16, 100% of trucks travel to/from South Port Road along NYS Route 32/144 to the I-87 Interchange 22. Along this route the unsignalized intersection approaches onto NYS Route 144 would have an increase in delay as the available gaps in traffic would decrease due to the increase in volume. Should the southern access scenario be proposed by the future tenant, during the site plan approval process an updated traffic analysis would be required to assess the impacts from the actual proposed development including the proposed trucking operations for the tenant.

Westbound Route:
The westbound route, as shown by the blue line in Figure 16 is assuming the worst-case scenario that all truck travel to the I-87 Interchange via NYS Route 32 and US Route 9W; however, access to this interchange is also available via Church Street to the Green Street slip ramp onto I-787. Nevertheless, as an extreme scenario, when all trucks utilize this route, additional recommended mitigation includes a follow up review of the US Route 9W intersection with NYS Route 32 as the intersection is projected to degrade from a LOS ‘C’ to a LOS ‘D’ in the morning peak hour with the analysis showing failing operations for the southbound left turn movement. With 10 of the 75 total site-generated trucks making this turn, the movement can maintain the same level of service as the Build Phase III-Mitigation scenario. When 50 of the 75 total site-generated trucks make this turn, the movement reaches failing levels of service, degrading from a LOS ‘E’ to a LOS ‘F’ for the morning peak hour. Should this scenario be proposed by the future tenant, the potential recommended mitigation to consider would be to extend the existing southbound left turn lane to ensure the additional trucks making the left turn do not queue back into the southbound through lanes. During the site plan approval process an updated traffic analysis would be required to assess the impacts from the actual proposed development including the proposed trucking operations for the tenant.




**Truck Sensitivity Review**
**Assuming Single Destination**


**FIGURE 16**

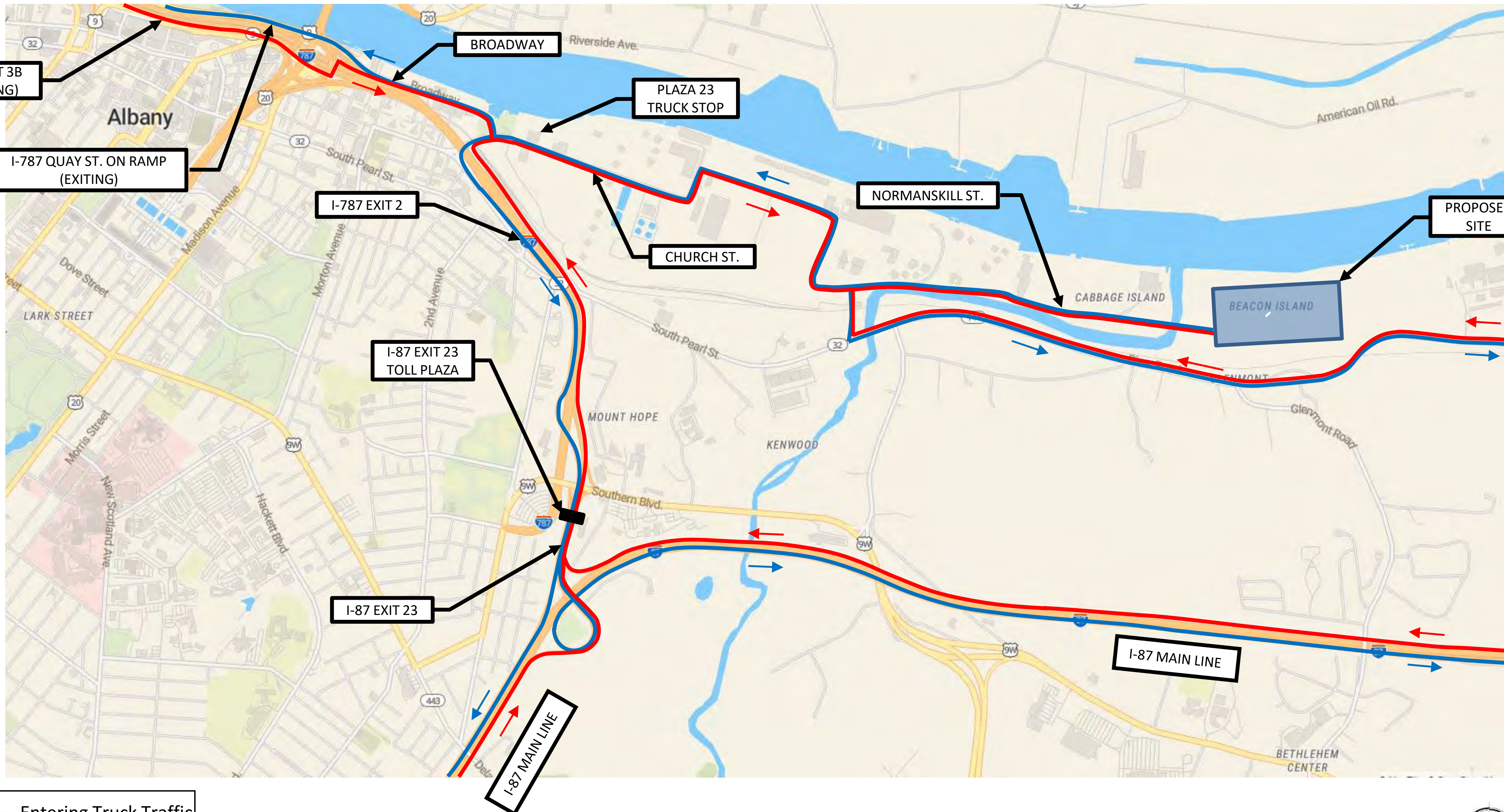
Conclusion

The recommended truck route is shown on Figure 17 and includes the two-primary means of truck access to the proposed site, via Church Street and Broadway to the north to access I-787 and the NYS Route 144 at South Port Road to head south on NYS Route 144. This recommended truck route also includes a restriction on right-turns for proposed trucks exiting the site via South Port Road and traveling north, to limit any impact that the proposed trucks may have on the environmentally sensitive areas along South Pearl Street, including the Ezra Prentice community. This restriction minimizes the anticipated impact from the proposed development on the surrounding roadway network related to the volume of trucks during the midday peak timeframe, as shown in Table 6a below. Figures 18 and 19 show the trip distribution percentages and the resulting truck trip generation volumes when accounting for this right-turn restriction.

**Table 6a – Projected Truck Volumes (Proposed Truck Routes)**

**MID-DAY PEAK HOUR**

| ROAD SEGMENT | Existing Truck Volume | | Proposed Truck Volume | | % Increase | |
|---|---|---|---|---|---|---|
| | NB/EB | SB/WB | NB/EB | SB/WB | | |
| NYS Route 32 from NYS Route 144 to US Route 9W (East/West) | 34 | 32 | 34 | 32 | 0.0% | 0.0% |
| Glenmont Rd. from NYS Route 144 to US Route 9W (East/West) | 3 | 6 | 3 | 6 | 0.0% | 0.0% |
| NYS Route 32 from 1st Ave. to South Port Rd. (North/South) | 83 | 86 | 83 | 86 | 0.0% | 0.0% |
| NYS Route 144 from NYS Route 32 to Glenmont Rd. (North/South) | 68 | 79 | 72 | 82 | 5.9% | 3.8% |
| NYS Route 144 from Glenmont Rd. to Clapper Rd. (North/South) | 67 | 75 | 71 | 78 | 6.0% | 4.0% |
| NYS Route 144 from Clapper Rd. to I-87 Exit 22 (North/South) | 67 | 75 | 71 | 78 | 6.0% | 4.0% |

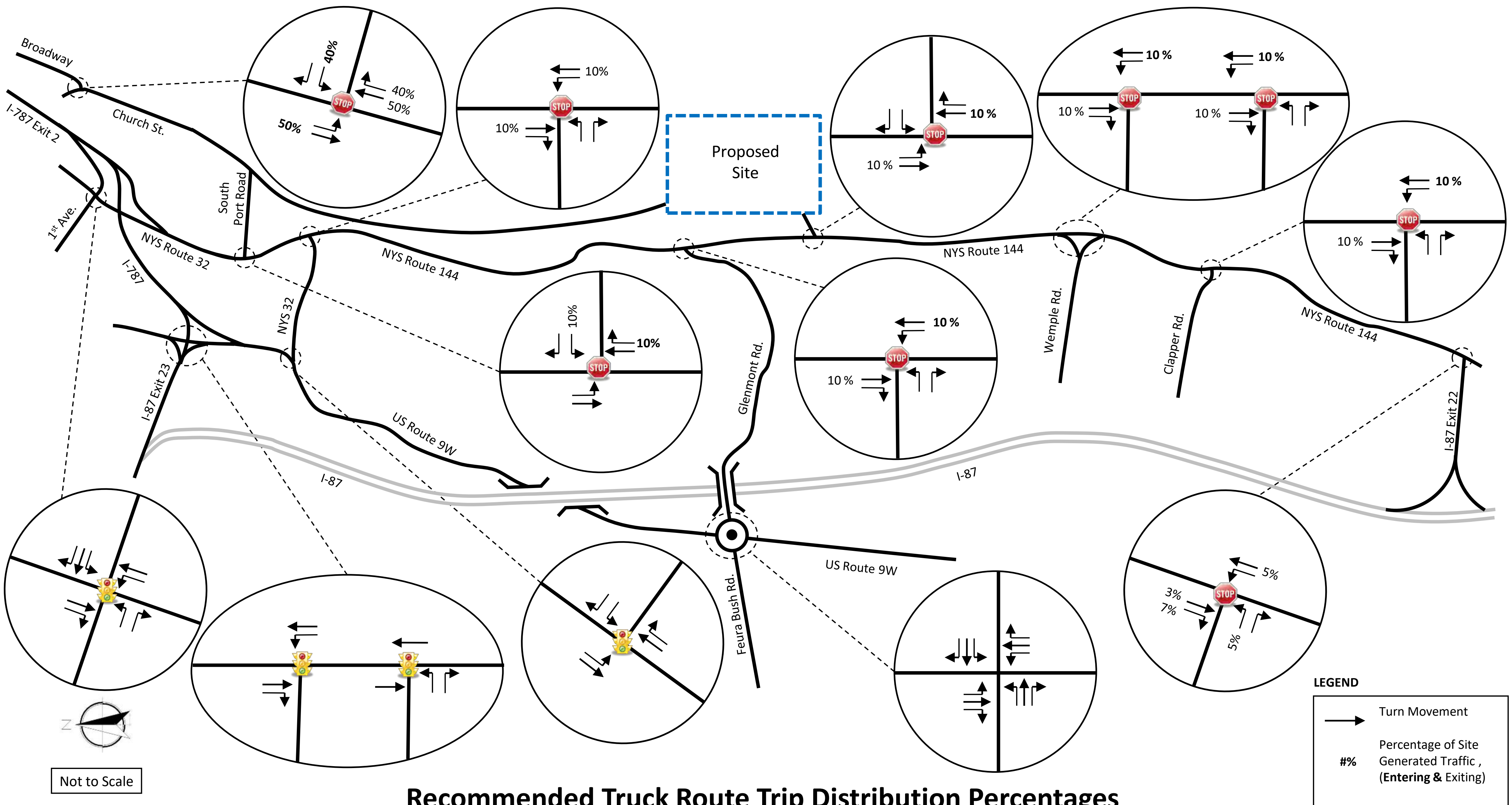



**LEGEND**

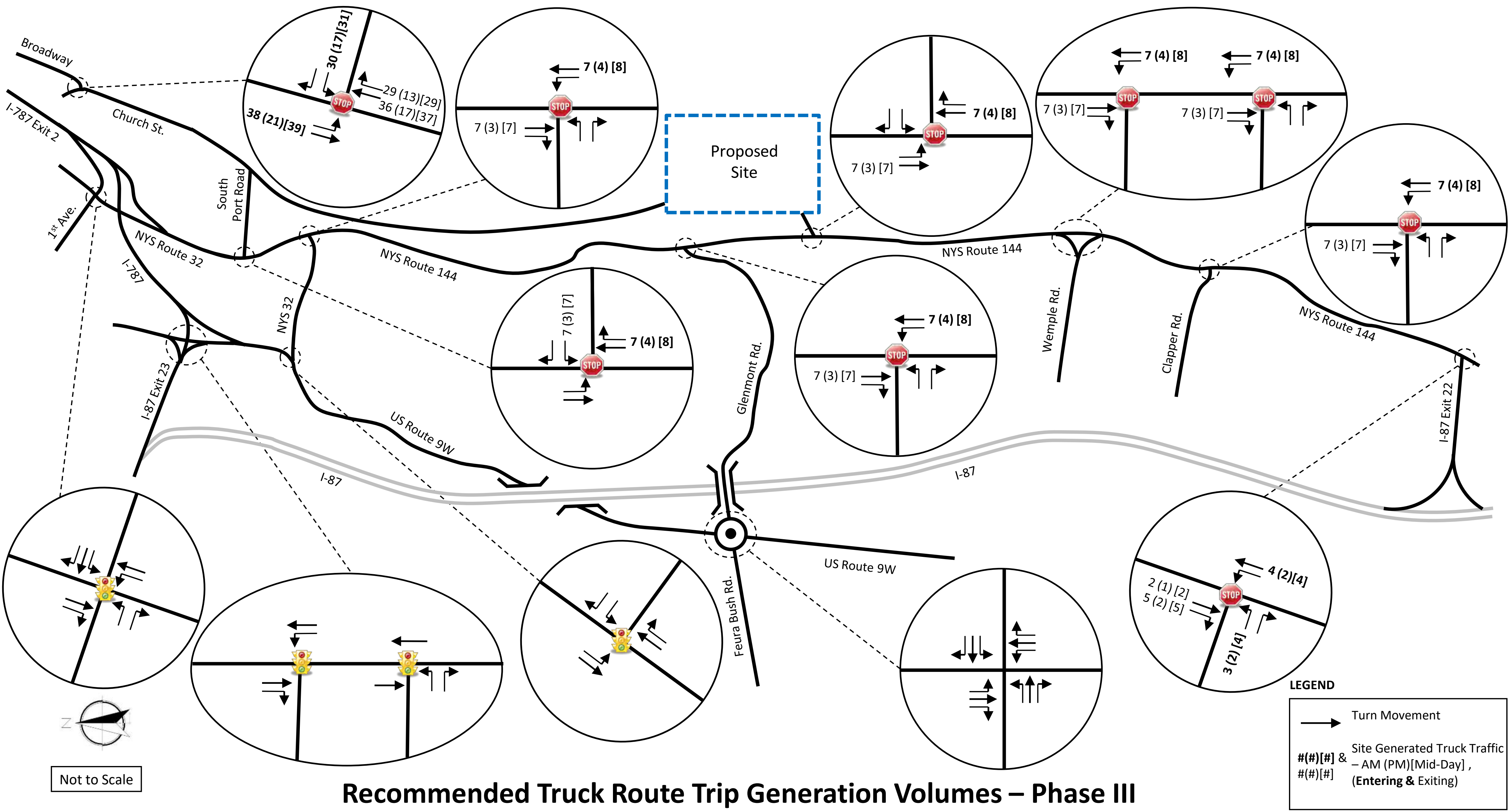
- Entering Truck Traffic
- Exiting Truck Traffic

Not to Scale

## Recommended Truck Routes To/From Proposed Site




# Recommended Truck Route Trip Distribution Percentages




**Recommended Truck Route Trip Generation Volumes – Phase III**

## Gap Analysis

A gap analysis was completed to determine if there were sufficient gaps in traffic to accommodate the existing and projected traffic volumes at the Glenmont Road approach to NYS Route 144 during the critical morning peak hour. The number of gaps from 7:00 AM to 8:15 AM were recorded in conjunction with the traffic volumes and are included under Appendix B. Critical Gaps and Follow Up Times for the left and right turn movements were calculated in Synchro based on intersection geometry, heavy vehicle percentages and speed limit. This critical gap represents the minimum amount of time between vehicles traveling on the NYS Route 144 corridor for a car from Glenmont Road to enter the traffic flow. Follow Up Times indicate the time span between the departure of one vehicle from Glenmont Road and the following vehicle pulling up to the intersection. Table 7 below summarizes the result of the data collected and the gap analysis performed:

**Table 7 - Gap Analysis**

**AM PEAK HOUR**

| Study Intersection | Approach & Movement | CRITICAL GAP | FOLLOW UP TIME | AVAILABLE TURN MOVEMENT GAPS | 2029 BACKGROUND VOLUME | 2029 FULL BUILD VOLUME |
|---|---|---|---|---|---|---|
| NYS Route 144 at Glenmont Road *(Un-Signalized)* | Northbound Left | 4.1 | 2.2 | 331 | 19 | 26 |
| | Eastbound Left | 6.5 | 3.6 | 222 | 170 | 170 |
| | Eastbound Right | 6.3 | 3.4 | 191 | 17 | 28 |

The 'Available Turn Movement Gaps' column represents the total number of gaps available during the morning peak hour. The 2029 Background and Full Build Volume's represents the number of vehicles turning at Glenmont Road during the peak hour. As shown in the table, there are sufficient available gaps for all the traffic movements at the proposed intersection. The eastbound left-turn vehicles will experience delay as they wait for an acceptable gap. During gap data collection the maximum queue length was 6-7 vehicles; however, the queue cleared out on a regular basis, as the NYS Route 144 traffic came in waves.

## Signal Warrant Analysis

Signal warrants were reviewed for the study area un-signalized intersections in accordance with the Federal Highway Administrations; Manual of Uniform Traffic Control Devices, 2009 edition. The un-signalized intersections of NYS Route 144 (River Road) at Glenmont Road as well as NYS Route 144 (River Road) at NYS Route 32 (Corning Hill Road) were reviewed using 2019 existing volumes due to the volumes and operating conditions at both intersections which have the potential to warrant a traffic signal. These intersections were also reviewed using the 2029 Build Phase III volumes to determine if the proposed development's additional traffic generation warranted a traffic signal.

The detailed signal warrant analysis worksheets for the existing and proposed conditions for both intersections are provided in Appendix D. This analysis showed that the NYS Route 144 (River Road) and Glenmont Road intersection meets one of the MUTCD signal warrants for the existing condition and following three of the MUTCD signal warrants for the proposed Build conditions.

- Warrant 1B – Eight Hour Vehicle Volume Warrant, Interruption of Continuous Traffic (Existing & Full Build based on projected midday traffic volumes)
- Warrant 2 – Four Hour Vehicle Volume Warrant (Full Build)
- Warrant 3B - Peak Hour Vehicle Volume Warrant (Full Build - AM Peak Hour Only)

Although a signal warrant threshold is met, this does not mean that a signal should be installed. The MUTCD signal warrants are a trigger to assess when further evaluation is needed to determine the most appropriate traffic control at the intersection. Despite meeting a signal warrant using existing traffic volumes, the gap analysis on NYS Route 144 that was performed (see the Gap Analysis section of the TIS for more details) showed that there are gaps available in the NYS Route 144 traffic flow for vehicles from Glenmont Road to turn onto NYS Route 144 during the most critical time, the morning peak hour. Based on the result of the Gap Analysis and potential negative impacts that installing a traffic signal has on traffic progression along a corridor, a signal is not currently recommended at this intersection. This intersection's traffic volumes should be monitored in the future as background growth occurs and when the expansion to the Port has a proposed site plan under review.

The NYS Route 144 (River Road)/NYS Route 32 (Corning Hill Road) intersection met three warrants based on the existing traffic volumes, and four warrants when applying the projected Full Build volumes as noted below:

- Warrant 1B – Eight Hour Vehicle Volume Warrant, Interruption of Continuous Traffic (Existing & Full Build)
- Warrant 2 – Four Hour Vehicle Volume Warrant (Existing & Full Build)
- Warrant 3A - Peak Hour Vehicle Delay/Volume Warrant (Full Build)
- Warrant 3B - Peak Hour Vehicle Volume Warrant (Existing & Full Build)

Based on these warrants being met, a traffic signal was assessed for this intersection to determine what impacts it would have both positive and negative. The warrants were met based on the 85th percentile speed exceeding 40 mph and utilized the MUTCD 70% Factor for the volume-based warrants. River Road (NYS Route 144) at the intersection has a 55-mph posted speed limit; however, the intersection is just south of the city's 30mp zone. At this intersection, southbound traffic is accelerating, while northbound traffic is slowing down. Speed data north of this intersection showed a 40 mph 85th percentile speed in both directions; therefore, it was concluded that the 85th percentile speed through the intersection is greater than 40 mph.

From a capacity standpoint, the signal will alleviate the anticipated future failing operations of the NYS Route 144 and NYS Route 32 stop sign controlled intersection and provide adequate levels of operations with minor increases in delay over the 2029 Background levels of operation. Installation of a traffic signal is not recommended based on the current volumes; however, this intersection should be monitored as background traffic volumes increase to determine if/when a signal installation may be appropriate. As a result of this assessment, a follow up traffic signal warrant analysis is recommended at this intersection as a mitigation measure for the development project during the initial project's site plan approval process.

**Sight Distance Analysis**

The sight distance at the proposed site entrance was field measured to determine if the available intersection sight distances meet the AASHTO recommended values. The NYSDOT Engineering Bulletin 17-007 was consulted when obtaining standard sight distance and is incorporated into the NYSDOT Highway Design Manual's sight distance tables which were used for the sight distance assessment. As shown in Table 8 below and Figure SD-01, located in Appendix B, adequate sight distance is available at the proposed site driveway onto NYS Route 144 when looking left to the south when current vegetation is removed to clear the sight lines. Looking right to the north from the proposed site entrance there is not adequate intersection sight distance or roadway stopping sight distance due to the horizontal curve and the crest of the road at the existing bridge. This section of the NYS Route 144 has an advisory speed of 45 mph posted with a curve sign (MUTCD W1-4) due to the horizontal curves; however the sight distance was calculated based on the posted regulatory speed limit of 55-mph which is also the 85th Percentile speed in this segment. There is adequate intersection and stopping sight distance for 45 mph once the vegetation along NYS Route 144 in the vicinity of the proposed drive is cleared at least 15-feet back from the edge of the travel way. Truck traffic to/from the Port will not be allowed to use this southern proposed access drive due to the restricted sight distance. It is recommended that the advisory speed limit of 45 mph in this section become the regulatory posted speed limit and the vegetation along NYS Route 144 in the vicinity of the proposed drive be cleared at least 15-feet back from the edge of the travel way to maximize intersection sight distance.

Based on the limited sight distance to the north, it is also recommended that signage be installed (Static or Dynamic) to notify southbound drivers approaching the proposed site entrance that an intersection is ahead (MUTCD W2-2 with W16-9P). Additional Port of Albany entrance advanced notice signage should also be considered to aid in notifying drivers in advance of the site driveway being visible. Adding intersection lighting is another recommendation to consider to improve the visibility of the intersection during nighttime.

During the site plan approval process, the exact location of the site entrance will be reviewed/approved by the Town and NYSDOT at which point the location(s) of the recommended signage and/or lighting can be designed and reviewed/approved by NYSDOT through their highway work permit process.

**Table 8 – Sight Distance Summary Table**

| SIGHT DISTANCE CALCULATIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| Location | Speed Limit | Direction | AASHTO/NYSDOT Recommended Intersection Sight Distance | Available Intersection Sight Distance * | AASHTO/NYSDOT Recommended Stopping Sight Distance | Available Stopping Sight Distance * | Visual Restriction |
| Proposed Access Drive at NYS Route 144 | 55 mph | Looking Left | 530 feet | 490' / 580' | 495 feet | 410' / 500' | Vegetation & Horizontal Curve |
| | 55 mph | Looking Right | 610 feet | 345' / 450' | | 340' / 375' | Vegetation, Horizontal & Vertical Curves |
| Shifted Access Drive at NYS Route 144 | 45 mph | Looking Left | 430 feet | 495' / 590' | 360 feet | 410' / 500' | Vegetation & Horizontal Curve |
| | 45 mph | Looking Right | 500 feet | 385' / 500' | | 340' / 375' | Vegetation, Horizontal & Vertical Curves |

Note:
* = Sight distance was measured based on the current conditions with vegetation restricting the sight lines and also projected based on removal of this vegetation.

## Maritime Analysis

The Port of Albany consists of multiple deep-water facilities located on both the Albany (west) and Rensselaer (east) side of the Hudson River, which has a navigable width in the project area of approximately 400'. The river is also utilized for recreational boating traffic and locations for ingress/egress/docking operations in the area are shown in Table 9. Based on previous Annual Reports for the Port of Albany and historic growth trends, it is estimated that the Port currently receives roughly 100 ships/barges per year, projected to reach 210 by 2029, equating to approximately 4 ships per week. In a worst-case scenario, the end-user would require the construction of an additional wharf, increasing maritime traffic at the Port by approximately 10%, or 21 ships/barges per year. These additional ships/barges are not projected to have a significant impact on the existing Hudson River maritime commercial or recreational traffic.

Within the project area, Normans Kill is currently used by law enforcement and emergency services for training purposes, and by the public, in a recreational capacity. The proposed development will not add any additional maritime traffic to this waterway, regardless of the end user. The proposed bridge over Normans Kill will be designed with adequate freeboard to accommodate the existing usage.

**Table 9 – Recreational Maritime Traffic Summary Table**

| FACILITY | DESCRIPTION | CAPACITY |
|---|---|---|
| Albany Yacht Club | Private boating club located approximately 2 miles north of Normanskill on the Rensselaer side of the Hudson River, providing dockage services | ± 75 Slips |
| Springers Marina | Commerical Business located approximately 2 miles north of Normanskill, providing dockage services | ± 45 Slips |
| Captain JP Cruises | Commercial Business operating out of Troy, providing chartered and weekly cruises along the Hudson River | 4-Deck Cruise Ship |
| Corning Preserve Launch | Public concrete boat launch located 3.5 miles north of Normanskill on the Albany side of the Hudson River | Parking for 15 Cars and Trailers |
| Normans Kill Launch | Public hand launch located in small urban park off New Scotland Road, 0.4 miles east of Maher Road exit of Route 85 | Parking for 5 Cars, no Trailers |

**Rail Analysis**

An existing railroad track owned by CSX runs north/south from the Port of Albany along the east side of NYS Route 32/144 and terminates at the Albany Port Railroad, a separate, short-line entity co-owned and operated by CSX and Canadian Pacific. As noted in the previous DGEIS from 2010, a railroad track and bridge had run through the proposed site, over and across the Normans Kill, connecting the proposed site with the Port of Albany Railroad. The track and bridge were used to transport coal through the Port but have not been in operation since 1975, with the bridge being removed, as it had collapsed and was in a state of disrepair. The track has been abandoned and any rights, easements, or ownership have been abandoned with it. A new rail bridge will be constructed to again connect the proposed site to the existing rail line.

The bulk of the daily rail activity at the existing Port of Albany site occurs within the confines of the Port on private property, thus limiting its impact on the general public. Over the last 5 years, approximately 11,000 railroad cars annually pass through the Albany Port Railroad, with 80% continuing past the Town of Bethlehem to CSX's Selkirk Yard, located approximately 8 miles south of the City of Albany. Currently, the only impact to the public is through CSX trains that run to and from the Port on a secondary line connected to Selkirk Yard. The CSX operations to the Port conservatively consist of one train per day that arrives at the Port sometime between midnight and 6:00 AM and leaves between 6:00 AM and noon. The Port also utilizes unit trains on a random, as needed basis about 4 times a month, usually consisting of approximately one-unit train per week that run on the same schedule. When a unit train is scheduled to come to the Port, that day could include two trains traveling to the Port from Selkirk. When the unit train is unloaded, two trains could be leaving the Port back to Selkirk that day. These unit trains follow the same time schedule as the daily trains, arriving sometime between midnight and 6:00 AM and leaving between 6:00 AM and noon.

The proposed developments impact on rail operation will be dependent on the tenant/end user. Regardless of the tenant, the only impact to the public will continue to be through the CSX train running on the secondary line to the Selkirk Rail Yard. The projected worst-case scenario operations consist of the current one train-per-day arriving at the Port with an additional 4-5 cars on the existing train, assuming a multi-tenant makeup of the proposed additional 1.3 million square feet. The number of unit trains could potentially increase from 4 to 6 times per month should a single large material-producing tenant occupy the new developable area. These worst-case scenarios will not result in an increase in idling trains in the study area.

The additional 4-5 rail cars are projected to be added to the existing trains that currently pass through the rail yard and therefore will not add any noise or diesel emissions impact to the Ezra Prentice neighborhood. The additional 1-2 trains per month is a slight increase to the roughly 30-35 trains that already pass through the area. Noticeable impacts to the public from increased rail operation are not anticipated as a result of the proposed development.

**Public Transportation Analysis**

Transit service available in the study area is provided by the Capital District Transportation Authority (CDTA). One CDTA line currently travels past the project site on NYS Route 144 and stops at the NYS Route 144/NYS Route 32 intersection. The Glenmont line (#7) starts from Broadway in the City of Albany and travels past the site on NYS Route 144 to the Walmart located on US Route 9W. No impacts on the public transportation are expected as a result of the proposed development. Figure 20 shows the available transit service in the immediate project area. The Port estimates that roughly 5-7% of their employees commute to work via transportation methods other than personal passenger cars. As a result, there is not expected to be any noticeable changes to the public transportation operations in the study area as a similar high utilization of passenger cars is anticipated for the employees of the proposed expansion project. The public transportation serving the site (Glenmont #7 Bus) has adequate passenger capacity and would experience the same roadway capacity impacts noted in the capacity analysis section.


## CDTA Transit Routes



**FIGURE 20**

**Pedestrian and Bicycle Transportation Analysis**

A review of the existing road network in the study area shows crosswalks with pedestrian push buttons and countdown timers provided at the NY Route 32/1st Avenue/I-787 Exit 2 Ramp intersection and that a crosswalk is provided on Broadway approximately 265-feet east of Church Street. Sidewalks are also provided in the vicinity of the NY Route 32 /1st Avenue/I-787 Exit 2 Ramp intersection and the Broadway/Church Street intersection which are located within the City of Albany. The existing signalized Glenmont/Feura Bush Road/US Route 9W intersection currently provides sidewalks, crosswalks, pushbuttons and countdown timers and will make accommodations for pedestrians when it is converted to a roundabout design. There are no pedestrian accommodations provided at the remaining intersections in the study area.

The Hudson Mohawk Bike Hike Trail system's cycle track ends at the intersection of Broadway and Quay Street and is outside the project area. The Albany County Helderberg Hudson Rail trail currently terminates at S. Pearl Street north of S. Port Road with a bridge over S. Pearl Street. At that point there is a parking lot where riders can then drive, or they can utilize the street network to continue their riding. Currently under construction is the South End Bikeway Connector which will connect these two existing trails/bikeways by constructing a separated cycle track to replace the on-street parking on the east side of S. Pearl Street, which will follow the I-787 frontage road before proceeding under I-787, adjacent to Church Street. This connection will add safety for pedestrians and bicyclists by providing a physical separation from moving vehicles while also serving as a traffic calming improvement in this section of S. Pearl St. There are no State Bike Routes posted in the project area; however, the northern portion of the existing Port of Albany starting at Dunham Street is located within a Tier 2 Pedestrian district of the Bike Pedestrian Priority Network. Based on the number of pedestrians counted during the peak hours, the traffic generated by the proposed project will have a negligible impact on the Bike Pedestrian Priority Network and the recent improvements being constructed will not see any negative impact from the proposed project.

Table 10 shows a summary of the peak hour pedestrian and bicycle activity observed during the traffic data collection. As shown, the NY Route 32/1st Avenue/I-787 Exit 2 Ramp intersection located in the City of Albany currently has pedestrian accommodations and experiences the most pedestrian traffic. Minimal pedestrian activity was observed at the Glenmont/Feura Bush Road/US Route 9W and NYS Route 32/1st Avenue/I-787 Exit 2 Ramp intersections with pedestrian facilities. The remaining study area intersections experience no pedestrian and bicycle activity with the exception of one pedestrian at the I-87 interchange ramps.

Based on the number of pedestrians and bicycles recorded during the peak hour at the NYS Route 32 /South Port Road and Church Street/Broadway intersections during the AM and PM peak hours, it can be assumed that few if any Albany Port employees currently walk and/or ride a bicycle to get to work. The Port estimates that roughly 5-7% of their employees commute to work via transportation methods other than personal passenger cars. As a result, there is not expected to be any noticeable changes to pedestrian and bicycle activity in the study area as a similar high utilization of passenger cars is anticipated for the employees of the proposed expansion project and no additional pedestrian accommodations are planned as mitigation for the project.

**Table 10 – Pedestrian/Bicycle Traffic**

| INTERSECTION | AM PEAK HOUR | | PM PEAK HOUR | |
|---|---|---|---|---|
| | Bicycle | Pedestrian | Bicycle | Pedestrian |
| Glenmont/Feura Bush Road at US Route 9W | 0 | 4 | 0 | 1 |
| NYS Route 32 at US Route 9W | 0 | 0 | 0 | 0 |
| Clapper Road at NYS Route 144 | 0 | 0 | 0 | 0 |
| NYS Route 32 at 1st Avenue/I-787 Exit 2 Ramp | 0 | 19 | 1 | 28 |
| Church Street at Broadway | 0 | 3 | 0 | 0 |
| NYS Route 144 at Glenmont Road | 0 | 0 | 0 | 0 |
| NYS Route 32 at South Port Road | 0 | 0 | 0 | 0 |
| NYS Route 144 at NYS Route 32 | 0 | 0 | 0 | 0 |
| NYS Route 144 at I-87 Exit 22 Ramp | 0 | 0 | 0 | 1 |

## Accident History Analysis

An accident history analysis has been completed for the NYS Route 144 corridor based on accident data provided by the Town of Bethlehem Police Department from the Corning Hill Intersection down to the NYS Thruway Exit 22 ramp. This data is included in Appendix B. Table 11 below shows the results of the data analysis.

**Table 11 – Accident History Summary**

| ACCIDENT HISTORY SUMMARY - NYS Route 144 (River Road) February 3, 2016 to September 15, 2019 | | | | | | |
|---|---|---|---|---|---|---|
| | INTERSECTIONS | | | | | SEGMENT |
| | SR 144 / SR 32 | SR 144 / Glenmont Rd | Wemple Rd / SR 144 | Clapper Rd / SR 144 | SR 144 / I-87 Exit 22 | SR 144 |
| **TOTAL ACCIDENTS** | **4** | **10** | **3** | **0** | **11** | **181** |
| Non-Reportable | 1 | 10 | 3 | 0 | 7 | 111 |
| Property Damage | 1 | 0 | 0 | 0 | 1 | 29 |
| Injuries | 2 | 0 | 0 | 0 | 3 | 40 |
| Fatalities | 0 | 0 | 0 | 0 | 0 | 1 |
| Intersection Accident Rate (ACC/MEV) | 0.27 | 0.74 | 0.24 | 0.00 | 0.95 | 2.95 |
| NYS Average Accident Rate (2016) | 0.18 | 0.18 | 0.18 | 0.18 | 0.17 | 3.50 |
| Accident Types | | | | | | |
| Other Vehicle | 3 | 8 | 1 | | 11 | 70 |
| Deer/Animal | | 2 | 1 | | | 69 |
| Fixed Object | 1 | | 1 | | | 39 |
| Overturned | | | | | | 1 |
| Ran Off Road | | | | | | 1 |
| Bicycle | | | | | | 1 |

Based on the accident data provided the overall corridor has an accident rate below the statewide average accident rate for a roadway of this nature. As shown in the table, a high percentage of these accidents were animal strikes (38%) while the specifics of the multi-vehicle accidents were not available from the data provided.

The individual intersection accident rates within the roadway corridor included in our study area were also reviewed. All of the intersections reviewed are un-signalized 3-way ‘T’ intersections which typically have a low accident rate as shown by the statewide average rates of 0.18 (Urban) and 0.17 (Rural). The intersections within the corridor have accident rates higher than the statewide average with the exception of the Clapper Road intersection which did not have any accidents in the time period. The Corning Hill (SR 32) and Wemple Road intersections have accident rates comparable to the statewide average, especially given their small overall number of accidents (4 and 3, respectively). At Glenmont Road and the NYS Thruway Ramp 22 intersections, accident rates are higher than the statewide average by 4 and 5 times respectively. Based on the data provided additional analysis of any specific accident trends is not possible at this time. It is our understanding that the Bethlehem Police Department is currently in the process of implementing an initiative to increase enforcement on this roadway segment and install additional signage to increase driver awareness of the intersections along the corridor.

It is recommended that during the site plan review process, the developer work with the Town and Bethlehem Police Department to coordinate any proposed roadway safety improvement initiatives to ensure there is consistency throughout the corridor to avoid driver confusion. Similar to the recommendations detailed in the sight distance section, our recommendation is to consider the installation of advanced intersection signage, intersection warning signage with flashing beacons, and intersection lighting to improve driver awareness of the side street intersections

**I-787 Northbound On Ramp from US Route 9W Capacity Analysis**

To analyze the adequacy and safety of the preferred truck route on I-787 via NYS Thruway Exit 23 or US Route 9W and the ability of trucks to merge safely before Exit 2 towards the Port of Albany, a merging capacity analysis was performed by modeling the section of highway where the two lanes from I-787 and the two lanes from NYS Thruway Exit 23 combine before dropping to three lanes prior to the Exit 2 ramp. The traffic modeling software HCS7 was used to generate a Level of Service (LOS) for this merging area to assess any impacts to the traffic operations associated with the proposed development traffic and the report is included in Appendix B. Level of operations for ramp merging is based on the average density, measured in passenger cars per mile per lane (pc/mi/ln). The criteria, i.e. the densities associated with corresponding levels of service for weaving, merging, and diverging road segments, as specified by the Highway Capacity Manual are shown in the table below.

**Table 12 – Weaving, Merging, and Diverging Segments Level of Service Criteria**

Weaving, Merging, and Diverging Segments Level of Service Criteria

| Level of Service | Weaving areas | | Merge or Diverge Areas |
|---|---|---|---|
| | Density Range (pc/mi/ln) | | |
| | On Freeways | On Multilane Highways or C-D Roadways | On Freeways, Multilane Highways, or C-D Roadways |
| A | 0-10 | 0-12 | 0-10 |
| B | >10-20 | >12-24 | >10-20 |
| C | >20-28 | >24-32 | >20-28 |
| D | >28-35 | >32-36 | >28-35 |
| E | >35 | >36 | >35 |
| F | Demand Exceeds Capacity | | |

Based on the analysis performed within the HCS7 software, the density in the ramp influence area of the merging highway on I-787 is currently 27.0 pc/mi/ln, or LOS 'C' in the morning peak hour and 15.4 pc/mi/ln, or LOS 'B' during the evening peak hours. After adding the proposed traffic projected from the project the operations are anticipated to be LOS 'C' (27.9 pc/mi/ln) and LOS 'B' (15.9 pc/mi/ln) in the 2029 Phase III full build out scenarios in the morning and evening peak hours respectively. Based on the ramp merging analysis the proposed development is projected to have a negligible impact on the traffic operations at this ramp merge.

## CONCLUSIONS AND RECOMMENDATIONS

MJ has evaluated the traffic operations within the study area near the proposed Port of Albany project in Albany, NY. Results from the 2029 Build conditions indicate that the proposed project will have negligible impacts with no noticeable increase in delay to the traveling public within the existing study area intersections for the proposed build phases once the recommended mitigation measures are implemented. Access into and out of the proposed development can be provided in a safe and efficient manner with the existing two points of access along with the proposed new driveway configuration and the proposed signal mitigation outlined in this report.

Based on the traffic analysis results, MJ offers the following conclusion and recommendations:

- The development's detailed site plan is not finalized; however, the most traffic intensive alternative was analyzed in this Traffic Impact Study to review the worst-case scenario. This alternative consists of the development of a 1,130,000 SF, two-level warehouse on approximately 69 acres with full build-out of the project estimated by 2029. As noted within the report, follow up analysis may be necessary during the site plan approval process based on the specifics of the initial proposed development on the site.

- Access to the site is proposed via one new access drive restricted to car traffic only, located on NYS Route 144 and via a new vehicular bridge that will span Normans Kill which will provide access to Normanskill Street and the existing intersections of NYS Route 32/South Port Road and Church Street/Broadway.

- It is anticipated that the proposed project as outlined will generate a maximum of 465 trips during the AM peak hour and 529 trips during the PM peak hour.

- The capacity analysis indicates that the following study area intersections will operate adequately with the improvements outlined for the full build-out of the proposed development.

  1. NYS Route 32 at US Route 9W:
     a. Traffic signal timing changes *(Monitor for all Phases, timing changes assumed for Phase III thresholds)*
  2. NYS Route 32 at 1st Ave/I-787 Exit 2 Ramp:
     a. Traffic signal timing changes *(Monitor for all Phases, timing changes assumed for Phase III thresholds)*
  3. NYS Route 32 at South Port Road:
     a. Monitor signal timings *(During Phase I)*
     *b.* Follow up traffic study to assess signal operations *(Prior to Phase II thresholds)*
     c. Construct a dedicated 200' long southbound left-turn lane *(Prior to Phase III thresholds)*
     d. Construction a dedicated 200' long westbound right turn lane *(Prior to Phase III thresholds)*
     e. Install new traffic signal equipment to provide a permissive/protected southbound left turn phase and a westbound right turn lane overlap phase. Potentially coordinate the controller should a traffic signal be installed at NYS Route 144/NYS Route 32 intersection. *(Prior to Phase III thresholds)*
  4. NYS Route 144 at NYS Route 32
     a. Follow up traffic signal warrant analysis based on the proposed site plan (*Initial project approval*)
     b. Signal should be installed and be coordinated with the traffic signal at South Port Road. *(Assumed Prior to Phase II)*
  5. NYS Route 144 at Glenmont Road
     a. Follow up traffic signal warrant analysis based on the proposed site plan (*Initial project approval*)

- The owner/applicant is responsible for the mitigation recommended within this report. Implementation of the recommended mitigation would be required during the site plan approval process when a definitive site layout is proposed to establish the mitigation measures required. Additional traffic assessments may be required at that time depending on the nature and magnitude of the proposed development presented for site plan approval.

- It is recommended that the proposed new access drive be restricted from trucks, operate under stop sign control and provide a single approach lane onto NYS Route 144 for left and right turn movement as a single entrance lane. Reduction in the regulatory speed on NYS Route 144 to 45 mph, intersection signage, intersection lighting and vegetation removal are all recommended at this proposed intersection. Final intersection configuration and details for the recommendations will be coordinated with NYSDOT during the NYSDOT highway work permit process.

  The recommended reduction in regulatory speed on NYS Route 144 at the proposed site driveway and vegetation removal along the sight lines would result in the proposed driveway to have adequate sight distance for passenger cars that meets the AASHTO and NYSDOT recommended lengths.

- The proposed truck traffic will not have a noticeable impact on the traveling public as the increase in truck traffic is only a fraction of the existing truck traffic within the study area. Based on the results of the sensitivity analysis, it is recommended that additional truck traffic be restricted to the route shown on Figure 17 to minimize impacts to the traveling public.

- The proposed impacts to the rail operations will have a negligible, if any, impact to the general public.

- The proposed project will not have any noticeable impacts to the existing pedestrian and bicycle activities in the study area and the proposed South End Bikeway Connector will provide additional accommodations within the study area.

- The accident history analysis showed that the River Road corridor as a whole has accident rates similar to the statewide average for a similar roadway; while the individual lower volume 'T' intersection had elevated accident rates. It is recommended that during the site plan review process, the developer work with the Town and Bethlehem Police Department to coordinate any proposed roadway safety improvement initiatives to ensure there is consistency throughout the corridor to avoid driver confusion and increase driver awareness of approaching unsignalized intersections.

- In general, the existing roadway infrastructure within the study area has adequate capacity to accommodate the proposed traffic anticipated by the development after implementing the recommended mitigation improvements.

**REFERENCES:**

- Trip Generation, 10th Edition. Institute of Transportation Engineers. Washington, D.C. 2017.
- Trip Generation Handbook, Second Edition. Institute of Transportation Engineers. Washington, D.C. June 2004.
- Highway Capacity Manual 2010, Fifth Edition. Transportation Research Board. National Research Council, Washington, D.C. 2010.
- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). Federal Highway Administration. 2009.
- "South Albany Truck Traffic" Creighton Manning. 2017.
- "S. Pearl St. Heavy Vehicle Travel Pattern Study". Capital District Transportation Committee. 2018.
- "Albany County Commercial Transportation Access Study" Creighton Manning. 2002.
- "Albany South End Community Air Quality Screening" NYSDEC. 2014.
- "Albany South End Study Progress Update" NYSDEC. 2018.
- "Traffic Control Plan for Superload Transport" CHA, Inc. 2018.

# APPENDICES

# APPENDIX A

# TRAFFIC COUNT DATA

- Intersection Turn Movement Counts
  - Tuesday (02/05/2019)
  - Tuesday (02/26/2019)
  - Thursday (08/15/2019)
  - Wednesday (09/25/2019)

- Automatic Traffic Recorder Data
  - Monday (06/17/2019) to Friday (6/21/2019)
  - Monday (09/30/2019) to Wednesday (10/02/2019)

- NYSDOT Tube Count Data
  - 9W on Ramp to I-787 (02/01/2010)
  - 9W at Mt Hope Drive (10/06/2015)
  - I-787 Off-Ramp (05/01/2014)
  - I-787 On-Ramp (02/01/2010)
  - Glenmont at NYS Route 144 (05/06/2014)
  - NYS Route 32 at NYS Route 144 (04/06/2014)
  - NYS Route 32 Off-Ramp (04/06/2015)
  - NYS Route 32 On-Ramp (03/25/2009)
  - S Pearl Near Port Road (11/03/2010)
  - S Pearl Near Exit 22 (11/03/2010)

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Albany, NY
NY 32/Green St/1st Ave
Tuesday, February 5, 2019
Location: 42.635373, -73.762017

Count Name: NY 32 / Green St / 1st Ave
Site Code: Albany, New York
Start Date: 02/05/2019
Page No: 1

# Turning Movement Data

| Start Time | 1st Ave Eastbound | | | | | | | Green St Westbound | | | | | | | NY 32 Northbound | | | | | | | NY 32 Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 0 | 2 | 0 | 0 | 5 | 3 | 80 | 19 | 12 | 0 | 0 | 0 | 111 | 0 | 8 | 0 | 0 | 0 | 0 | 8 | 0 | 9 | 0 | 1 | 1 | 0 | 11 | 133 |
| 7:15 AM | 0 | 0 | 13 | 0 | 0 | 3 | 13 | 75 | 26 | 11 | 0 | 0 | 0 | 112 | 1 | 16 | 0 | 0 | 0 | 0 | 17 | 0 | 18 | 0 | 1 | 0 | 0 | 19 | 161 |
| 7:30 AM | 0 | 0 | 13 | 1 | 0 | 8 | 14 | 77 | 18 | 8 | 1 | 0 | 0 | 104 | 5 | 18 | 0 | 0 | 0 | 0 | 23 | 0 | 17 | 0 | 0 | 0 | 0 | 17 | 158 |
| 7:45 AM | 2 | 0 | 7 | 2 | 0 | 6 | 11 | 86 | 18 | 18 | 0 | 0 | 0 | 122 | 3 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 27 | 0 | 0 | 0 | 0 | 27 | 175 |
| Hourly Total | 3 | 0 | 35 | 3 | 0 | 22 | 41 | 318 | 81 | 49 | 1 | 0 | 0 | 449 | 9 | 54 | 0 | 0 | 0 | 0 | 63 | 0 | 71 | 0 | 2 | 1 | 0 | 74 | 627 |
| 8:00 AM | 0 | 0 | 10 | 1 | 0 | 6 | 11 | 75 | 7 | 11 | 1 | 0 | 0 | 94 | 2 | 15 | 0 | 0 | 0 | 0 | 17 | 0 | 12 | 2 | 0 | 0 | 0 | 14 | 136 |
| 8:15 AM | 1 | 0 | 7 | 2 | 0 | 4 | 10 | 99 | 12 | 19 | 2 | 0 | 0 | 132 | 2 | 13 | 0 | 0 | 0 | 0 | 15 | 0 | 21 | 1 | 0 | 0 | 0 | 22 | 179 |
| 8:30 AM | 0 | 0 | 3 | 1 | 0 | 3 | 4 | 78 | 11 | 33 | 0 | 0 | 0 | 122 | 0 | 15 | 0 | 0 | 0 | 0 | 15 | 0 | 29 | 1 | 0 | 0 | 0 | 30 | 171 |
| 8:45 AM | 3 | 0 | 4 | 0 | 0 | 3 | 7 | 68 | 2 | 9 | 1 | 0 | 0 | 80 | 0 | 20 | 0 | 0 | 0 | 0 | 20 | 0 | 23 | 1 | 2 | 0 | 0 | 26 | 133 |
| Hourly Total | 4 | 0 | 24 | 4 | 0 | 16 | 32 | 320 | 32 | 72 | 4 | 0 | 0 | 428 | 4 | 63 | 0 | 0 | 0 | 0 | 67 | 0 | 85 | 5 | 2 | 0 | 0 | 92 | 619 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 1 | 0 | 20 | 1 | 0 | 2 | 22 | 170 | 25 | 14 | 0 | 0 | 0 | 209 | 2 | 17 | 0 | 0 | 0 | 1 | 19 | 0 | 41 | 0 | 0 | 0 | 0 | 41 | 291 |
| 4:15 PM | 2 | 0 | 18 | 5 | 0 | 2 | 25 | 168 | 16 | 7 | 1 | 0 | 0 | 192 | 2 | 14 | 0 | 0 | 0 | 0 | 16 | 0 | 40 | 2 | 0 | 0 | 0 | 42 | 275 |
| 4:30 PM | 1 | 0 | 12 | 0 | 0 | 8 | 13 | 183 | 15 | 16 | 0 | 0 | 0 | 214 | 0 | 14 | 0 | 0 | 0 | 0 | 14 | 0 | 40 | 2 | 0 | 0 | 0 | 42 | 283 |
| 4:45 PM | 0 | 0 | 7 | 0 | 0 | 5 | 7 | 206 | 34 | 14 | 0 | 0 | 0 | 254 | 1 | 12 | 0 | 0 | 0 | 4 | 13 | 0 | 44 | 3 | 1 | 0 | 0 | 48 | 322 |
| Hourly Total | 4 | 0 | 57 | 6 | 0 | 17 | 67 | 727 | 90 | 51 | 1 | 0 | 0 | 869 | 5 | 57 | 0 | 0 | 0 | 5 | 62 | 0 | 165 | 7 | 1 | 0 | 0 | 173 | 1171 |
| 5:00 PM | 1 | 0 | 8 | 0 | 0 | 3 | 9 | 178 | 16 | 12 | 0 | 0 | 1 | 206 | 1 | 17 | 0 | 0 | 0 | 3 | 18 | 0 | 49 | 1 | 0 | 0 | 0 | 50 | 283 |
| 5:15 PM | 0 | 0 | 15 | 0 | 0 | 5 | 15 | 220 | 26 | 12 | 0 | 0 | 0 | 258 | 3 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 49 | 2 | 1 | 0 | 0 | 52 | 340 |
| 5:30 PM | 1 | 0 | 12 | 2 | 0 | 6 | 15 | 128 | 18 | 12 | 0 | 0 | 0 | 158 | 3 | 18 | 0 | 0 | 0 | 0 | 21 | 0 | 34 | 3 | 0 | 0 | 0 | 37 | 231 |
| 5:45 PM | 1 | 0 | 10 | 2 | 0 | 5 | 13 | 126 | 10 | 19 | 2 | 0 | 0 | 157 | 0 | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 33 | 3 | 0 | 0 | 0 | 36 | 216 |
| Hourly Total | 3 | 0 | 45 | 4 | 0 | 19 | 52 | 652 | 70 | 55 | 2 | 0 | 1 | 779 | 7 | 57 | 0 | 0 | 0 | 3 | 64 | 0 | 165 | 9 | 1 | 0 | 0 | 175 | 1070 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 14 | 0 | 161 | 17 | 0 | 74 | 192 | 2017 | 273 | 227 | 8 | 0 | 1 | 2525 | 25 | 231 | 0 | 0 | 0 | 8 | 256 | 0 | 486 | 21 | 6 | 1 | 0 | 514 | 3487 |
| Approach % | 7.3 | 0.0 | 83.9 | 8.9 | 0.0 | - | - | 79.9 | 10.8 | 9.0 | 0.3 | 0.0 | - | - | 9.8 | 90.2 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 94.6 | 4.1 | 1.2 | 0.2 | - | - | - |
| Total % | 0.4 | 0.0 | 4.6 | 0.5 | 0.0 | - | 5.5 | 57.8 | 7.8 | 6.5 | 0.2 | 0.0 | - | 72.4 | 0.7 | 6.6 | 0.0 | 0.0 | 0.0 | - | 7.3 | 0.0 | 13.9 | 0.6 | 0.2 | 0.0 | - | 14.7 | - |
| Lights | 13 | 0 | 146 | 17 | 0 | - | 176 | 1792 | 268 | 221 | 7 | 0 | - | 2288 | 24 | 193 | 0 | 0 | 0 | - | 217 | 0 | 432 | 18 | 6 | 1 | - | 457 | 3138 |
| % Lights | 92.9 | - | 90.7 | 100.0 | - | - | 91.7 | 88.8 | 98.2 | 97.4 | 87.5 | - | - | 90.6 | 96.0 | 83.5 | - | - | - | - | 84.8 | - | 88.9 | 85.7 | 100.0 | 100.0 | - | 88.9 | 90.0 |
| Buses | 0 | 0 | 14 | 0 | 0 | - | 14 | 71 | 5 | 4 | 0 | 0 | - | 80 | 1 | 31 | 0 | 0 | 0 | - | 32 | 0 | 42 | 1 | 0 | 0 | - | 43 | 169 |
| % Buses | 0.0 | - | 8.7 | 0.0 | - | - | 7.3 | 3.5 | 1.8 | 1.8 | 0.0 | - | - | 3.2 | 4.0 | 13.4 | - | - | - | - | 12.5 | - | 8.6 | 4.8 | 0.0 | 0.0 | - | 8.4 | 4.8 |
| Trucks | 1 | 0 | 1 | 0 | 0 | - | 2 | 154 | 0 | 2 | 1 | 0 | - | 157 | 0 | 7 | 0 | 0 | 0 | - | 7 | 0 | 12 | 2 | 0 | 0 | - | 14 | 180 |
| % Trucks | 7.1 | - | 0.6 | 0.0 | - | - | 1.0 | 7.6 | 0.0 | 0.9 | 12.5 | - | - | 6.2 | 0.0 | 3.0 | - | - | - | - | 2.7 | - | 2.5 | 9.5 | 0.0 | 0.0 | - | 2.7 | 5.2 |
| Bicycles on Crosswalk | - | - | - | - | - | 2 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 2.7 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 72 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 8 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | 97.3 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - |

02/05/2019 7:00 AM
Ending At
02/05/2019 6:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

**NY 32 [SB]**

| Out | In | Total |
|---|---|---|
| 435 | 457 | 892 |
| 35 | 43 | 78 |
| 11 | 14 | 25 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **481** | **514** | **995** |

| R | T | L | U | P |
|---|---|---|---|---|
| 24 | 432 | 0 | 1 | 0 |
| 1 | 42 | 0 | 0 | 0 |
| 2 | 12 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **27** | **486** | **0** | **1** | **0** |

**1st Ave [EB]**

| Out | In | Total |
|---|---|---|
| 316 | 176 | 492 |
| 7 | 14 | 21 |
| 2 | 2 | 4 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **325** | **192** | **517** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 13 | 0 | 163 | 0 |
| 0 | 0 | 0 | 14 | 0 |
| 0 | 1 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 2 |
| 0 | 0 | 0 | 0 | 72 |
| **0** | **14** | **0** | **178** | **74** |

**Green St [WB]**

| Out | In | Total |
|---|---|---|
| 0 | 2288 | 2288 |
| 0 | 80 | 80 |
| 0 | 157 | 157 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **0** | **2525** | **2525** |

| R | T | L | U | P |
|---|---|---|---|---|
| 228 | 268 | 1792 | 0 | 0 |
| 4 | 5 | 71 | 0 | 0 |
| 3 | 0 | 154 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 |
| **235** | **273** | **2017** | **0** | **1** |

**NY 32 [NB]**

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 24 | 193 | 0 | 0 |
| 0 | 1 | 31 | 0 | 0 |
| 0 | 0 | 7 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 8 |
| **0** | **25** | **231** | **0** | **8** |

| Out | In | Total |
|---|---|---|
| 2387 | 217 | 2604 |
| 127 | 32 | 159 |
| 167 | 7 | 174 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **2681** | **256** | **2937** |

Turning Movement Data Plot

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Albany, NY
NY 32/Green St/1st Ave
Tuesday, February 5, 2019
Location: 42.635373, -73.762017

Count Name: NY 32 / Green St / 1st Ave
Site Code: Albany, New York
Start Date: 02/05/2019


## Turning Movement Peak Hour Data (7:45 AM)

| Start Time | 1st Ave Eastbound | | | | | | | Green St Westbound | | | | | | | NY 32 Northbound | | | | | | | NY 32 Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 7:45 AM | 2 | 0 | 7 | 2 | 0 | 6 | 11 | 86 | 18 | 18 | 0 | 0 | 0 | 122 | 3 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 27 | 0 | 0 | 0 | 0 | 27 | 175 |
| 8:00 AM | 0 | 0 | 10 | 1 | 0 | 6 | 11 | 75 | 7 | 11 | 1 | 0 | 0 | 94 | 2 | 15 | 0 | 0 | 0 | 0 | 17 | 0 | 12 | 2 | 0 | 0 | 0 | 14 | 136 |
| 8:15 AM | 1 | 0 | 7 | 2 | 0 | 4 | 10 | 99 | 12 | 19 | 2 | 0 | 0 | 132 | 2 | 13 | 0 | 0 | 0 | 0 | 15 | 0 | 21 | 1 | 0 | 0 | 0 | 22 | 179 |
| 8:30 AM | 0 | 0 | 3 | 1 | 0 | 3 | 4 | 78 | 11 | 33 | 0 | 0 | 0 | 122 | 0 | 15 | 0 | 0 | 0 | 0 | 15 | 0 | 29 | 1 | 0 | 0 | 0 | 30 | 171 |
| Total | 3 | 0 | 27 | 6 | 0 | 19 | 36 | 338 | 48 | 81 | 3 | 0 | 0 | 470 | 7 | 55 | 0 | 0 | 0 | 0 | 62 | 0 | 89 | 4 | 0 | 0 | 0 | 93 | 661 |
| Approach % | 8.3 | 0.0 | 75.0 | 16.7 | 0.0 | - | - | 71.9 | 10.2 | 17.2 | 0.6 | 0.0 | - | - | 11.3 | 88.7 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 95.7 | 4.3 | 0.0 | 0.0 | - | - | - |
| Total % | 0.5 | 0.0 | 4.1 | 0.9 | 0.0 | - | 5.4 | 51.1 | 7.3 | 12.3 | 0.5 | 0.0 | - | 71.1 | 1.1 | 8.3 | 0.0 | 0.0 | 0.0 | - | 9.4 | 0.0 | 13.5 | 0.6 | 0.0 | 0.0 | - | 14.1 | - |
| PHF | 0.375 | 0.000 | 0.675 | 0.750 | 0.000 | - | 0.818 | 0.854 | 0.667 | 0.614 | 0.375 | 0.000 | - | 0.890 | 0.583 | 0.917 | 0.000 | 0.000 | 0.000 | - | 0.912 | 0.000 | 0.767 | 0.500 | 0.000 | 0.000 | - | 0.775 | 0.923 |
| Lights | 3 | 0 | 25 | 6 | 0 | - | 34 | 256 | 48 | 80 | 2 | 0 | - | 386 | 6 | 47 | 0 | 0 | 0 | - | 53 | 0 | 73 | 3 | 0 | 0 | - | 76 | 549 |
| % Lights | 100.0 | - | 92.6 | 100.0 | - | - | 94.4 | 75.7 | 100.0 | 98.8 | 66.7 | - | - | 82.1 | 85.7 | 85.5 | - | - | - | - | 85.5 | - | 82.0 | 75.0 | - | - | - | 81.7 | 83.1 |
| Buses | 0 | 0 | 2 | 0 | 0 | - | 2 | 19 | 0 | 1 | 0 | 0 | - | 20 | 1 | 6 | 0 | 0 | 0 | - | 7 | 0 | 11 | 0 | 0 | 0 | - | 11 | 40 |
| % Buses | 0.0 | - | 7.4 | 0.0 | - | - | 5.6 | 5.6 | 0.0 | 1.2 | 0.0 | - | - | 4.3 | 14.3 | 10.9 | - | - | - | - | 11.3 | - | 12.4 | 0.0 | - | - | - | 11.8 | 6.1 |
| Trucks | 0 | 0 | 0 | 0 | 0 | - | 0 | 63 | 0 | 0 | 1 | 0 | - | 64 | 0 | 2 | 0 | 0 | 0 | - | 2 | 0 | 5 | 1 | 0 | 0 | - | 6 | 72 |
| % Trucks | 0.0 | - | 0.0 | 0.0 | - | - | 0.0 | 18.6 | 0.0 | 0.0 | 33.3 | - | - | 13.6 | 0.0 | 3.6 | - | - | - | - | 3.2 | - | 5.6 | 25.0 | - | - | - | 6.5 | 10.9 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 19 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Albany, NY
NY 32/Green St/1st Ave
Tuesday, February 5, 2019
Location: 42.635373, -73.762017

Count Name: NY 32 / Green St / 1st Ave
Site Code: Albany, New York
Start Date: 02/05/2019


## Peak Hour Data

02/05/2019 7:45 AM
Ending At
02/05/2019 8:45 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

NY 32 [SB]

| Out | In | Total |
|---|---|---|
| 132 | 76 | 208 |
| 7 | 11 | 18 |
| 3 | 6 | 9 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **142** | **93** | **235** |

| R | T | L | U | P |
|---|---|---|---|---|
| 3 | 73 | 0 | 0 | 0 |
| 0 | 11 | 0 | 0 | 0 |
| 1 | 5 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **4** | **89** | **0** | **0** | **0** |

1st Ave [EB]

| Out | In | Total |
|---|---|---|
| 57 | 34 | 91 |
| 1 | 2 | 3 |
| 1 | 0 | 1 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **59** | **36** | **95** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 3 | 0 | 31 | 0 |
| 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 19 |
| **0** | **3** | **0** | **33** | **19** |

Green St [WB]

| Out | In | Total |
|---|---|---|
| 0 | 386 | 386 |
| 0 | 20 | 20 |
| 0 | 64 | 64 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **0** | **470** | **470** |

| R | T | L | U | P |
|---|---|---|---|---|
| 82 | 48 | 256 | 0 | 0 |
| 1 | 0 | 19 | 0 | 0 |
| 1 | 0 | 63 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **84** | **48** | **338** | **0** | **0** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 6 | 47 | 0 | 0 |
| 0 | 1 | 6 | 0 | 0 |
| 0 | 0 | 2 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **0** | **7** | **55** | **0** | **0** |

| Out | In | Total |
|---|---|---|
| 360 | 53 | 413 |
| 32 | 7 | 39 |
| 68 | 2 | 70 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **460** | **62** | **522** |

NY 32 [NB]

Turning Movement Peak Hour Data Plot (7:45 AM)

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Albany, NY
NY 32/Green St/1st Ave
Tuesday, February 5, 2019
Location: 42.635373, -73.762017

Count Name: NY 32 / Green St / 1st Ave
Site Code: Albany, New York
Start Date: 02/05/2019


# Turning Movement Peak Hour Data (4:30 PM)

| Start Time | 1st Ave | | | | | | | Green St | | | | | | | NY 32 | | | | | | | NY 32 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | | | | Westbound | | | | | | | Northbound | | | | | | | Southbound | | | | | | | |
| | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 4:30 PM | 1 | 0 | 12 | 0 | 0 | 8 | 13 | 183 | 15 | 16 | 0 | 0 | 0 | 214 | 0 | 14 | 0 | 0 | 0 | 0 | 14 | 0 | 40 | 2 | 0 | 0 | 0 | 42 | 283 |
| 4:45 PM | 0 | 0 | 7 | 0 | 0 | 5 | 7 | 206 | 34 | 14 | 0 | 0 | 0 | 254 | 1 | 12 | 0 | 0 | 0 | 4 | 13 | 0 | 44 | 3 | 1 | 0 | 0 | 48 | 322 |
| 5:00 PM | 1 | 0 | 8 | 0 | 0 | 3 | 9 | 178 | 16 | 12 | 0 | 0 | 1 | 206 | 1 | 17 | 0 | 0 | 0 | 3 | 18 | 0 | 49 | 1 | 0 | 0 | 0 | 50 | 283 |
| 5:15 PM | 0 | 0 | 15 | 0 | 0 | 5 | 15 | 220 | 26 | 12 | 0 | 0 | 0 | 258 | 3 | 12 | 0 | 0 | 0 | 0 | 15 | 0 | 49 | 2 | 1 | 0 | 0 | 52 | 340 |
| Total | 2 | 0 | 42 | 0 | 0 | 21 | 44 | 787 | 91 | 54 | 0 | 0 | 1 | 932 | 5 | 55 | 0 | 0 | 0 | 7 | 60 | 0 | 182 | 8 | 2 | 0 | 0 | 192 | 1228 |
| Approach % | 4.5 | 0.0 | 95.5 | 0.0 | 0.0 | - | - | 84.4 | 9.8 | 5.8 | 0.0 | 0.0 | - | - | 8.3 | 91.7 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 94.8 | 4.2 | 1.0 | 0.0 | - | - | - |
| Total % | 0.2 | 0.0 | 3.4 | 0.0 | 0.0 | - | 3.6 | 64.1 | 7.4 | 4.4 | 0.0 | 0.0 | - | 75.9 | 0.4 | 4.5 | 0.0 | 0.0 | 0.0 | - | 4.9 | 0.0 | 14.8 | 0.7 | 0.2 | 0.0 | - | 15.6 | - |
| PHF | 0.500 | 0.000 | 0.700 | 0.000 | 0.000 | - | 0.733 | 0.894 | 0.669 | 0.844 | 0.000 | 0.000 | - | 0.903 | 0.417 | 0.809 | 0.000 | 0.000 | 0.000 | - | 0.833 | 0.000 | 0.929 | 0.667 | 0.500 | 0.000 | - | 0.923 | 0.903 |
| Lights | 2 | 0 | 39 | 0 | 0 | - | 41 | 750 | 91 | 51 | 0 | 0 | - | 892 | 5 | 48 | 0 | 0 | 0 | - | 53 | 0 | 167 | 7 | 2 | 0 | - | 176 | 1162 |
| % Lights | 100.0 | - | 92.9 | - | - | - | 93.2 | 95.3 | 100.0 | 94.4 | - | - | - | 95.7 | 100.0 | 87.3 | - | - | - | - | 88.3 | - | 91.8 | 87.5 | 100.0 | - | - | 91.7 | 94.6 |
| Buses | 0 | 0 | 2 | 0 | 0 | - | 2 | 21 | 0 | 1 | 0 | 0 | - | 22 | 0 | 7 | 0 | 0 | 0 | - | 7 | 0 | 12 | 0 | 0 | 0 | - | 12 | 43 |
| % Buses | 0.0 | - | 4.8 | - | - | - | 4.5 | 2.7 | 0.0 | 1.9 | - | - | - | 2.4 | 0.0 | 12.7 | - | - | - | - | 11.7 | - | 6.6 | 0.0 | 0.0 | - | - | 6.3 | 3.5 |
| Trucks | 0 | 0 | 1 | 0 | 0 | - | 1 | 16 | 0 | 2 | 0 | 0 | - | 18 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 1 | 0 | 0 | - | 4 | 23 |
| % Trucks | 0.0 | - | 2.4 | - | - | - | 2.3 | 2.0 | 0.0 | 3.7 | - | - | - | 1.9 | 0.0 | 0.0 | - | - | - | - | 0.0 | - | 1.6 | 12.5 | 0.0 | - | - | 2.1 | 1.9 |
| Bicycles on Crosswalk | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | 4.8 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 20 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 7 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | 95.2 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - |

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Albany, NY
NY 32/Green St/1st Ave
Tuesday, February 5, 2019
Location: 42.635373, -73.762017

Count Name: NY 32 / Green St / 1st Ave
Site Code: Albany, New York
Start Date: 02/05/2019
Page No: 6

## Peak Hour Data

02/05/2019 4:30 PM
Ending At
02/05/2019 5:30 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

NY 32 [SB]

| Out | In | Total |
|---|---|---|
| 101 | 176 | 277 |
| 8 | 12 | 20 |
| 2 | 4 | 6 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **111** | **192** | **303** |

| R | T | L | U | P |
|---|---|---|---|---|
| 9 | 167 | 0 | 0 | 0 |
| 0 | 12 | 0 | 0 | 0 |
| 1 | 3 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **10** | **182** | **0** | **0** | **0** |

1st Ave [EB]

| Out | In | Total |
|---|---|---|
| 105 | 41 | 146 |
| 0 | 2 | 2 |
| 1 | 1 | 2 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **106** | **44** | **150** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 2 | 0 | 39 | 0 |
| 0 | 0 | 0 | 2 | 0 |
| 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 0 | 0 | 20 |
| **0** | **2** | **0** | **42** | **21** |

Green St [WB]

| Out | In | Total |
|---|---|---|
| 0 | 892 | 892 |
| 0 | 22 | 22 |
| 0 | 18 | 18 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **0** | **932** | **932** |

| R | T | L | U | P |
|---|---|---|---|---|
| 51 | 91 | 750 | 0 | 0 |
| 1 | 0 | 21 | 0 | 0 |
| 2 | 0 | 16 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 |
| **54** | **91** | **787** | **0** | **1** |

NY 32 [NB]

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 5 | 48 | 0 | 0 |
| 0 | 0 | 7 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 7 |
| **0** | **5** | **55** | **0** | **7** |

| Out | In | Total |
|---|---|---|
| 956 | 53 | 1009 |
| 35 | 7 | 42 |
| 20 | 0 | 20 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1011** | **60** | **1071** |

Turning Movement Peak Hour Data Plot (4:30 PM)

TRI-STATE TRAFFIC DATA

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Albany, NY
NY 32/NY 144
Tuesday, February 5, 2019
Location: 42.619459, -73.766358

Count Name: NY 32 / NY 144
Site Code: Glenmont, New York
Start Date: 02/05/2019
Page No: 1

# Turning Movement Data

| Start Time | Corning Hill Rd (NY 32) Eastbound | | | | | NY 144 (River Road) Northbound | | | | | NY 32 / 144 (River Road) Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 17 | 6 | 0 | 0 | 23 | 10 | 94 | 0 | 0 | 104 | 43 | 10 | 0 | 0 | 53 | 180 |
| 7:15 AM | 20 | 4 | 0 | 0 | 24 | 8 | 121 | 0 | 0 | 129 | 40 | 17 | 0 | 0 | 57 | 210 |
| 7:30 AM | 27 | 12 | 0 | 0 | 39 | 15 | 170 | 0 | 0 | 185 | 38 | 18 | 0 | 0 | 56 | 280 |
| 7:45 AM | 22 | 11 | 0 | 0 | 33 | 14 | 164 | 0 | 0 | 178 | 57 | 6 | 0 | 0 | 63 | 274 |
| Hourly Total | 86 | 33 | 0 | 0 | 119 | 47 | 549 | 0 | 0 | 596 | 178 | 51 | 0 | 0 | 229 | 944 |
| 8:00 AM | 21 | 13 | 0 | 0 | 34 | 7 | 122 | 0 | 0 | 129 | 43 | 10 | 0 | 0 | 53 | 216 |
| 8:15 AM | 22 | 7 | 0 | 0 | 29 | 14 | 130 | 0 | 0 | 144 | 53 | 13 | 0 | 0 | 66 | 239 |
| 8:30 AM | 18 | 13 | 0 | 0 | 31 | 5 | 102 | 0 | 0 | 107 | 38 | 16 | 0 | 0 | 54 | 192 |
| 8:45 AM | 16 | 5 | 0 | 0 | 21 | 4 | 108 | 0 | 0 | 112 | 35 | 20 | 0 | 0 | 55 | 188 |
| Hourly Total | 77 | 38 | 0 | 0 | 115 | 30 | 462 | 0 | 0 | 492 | 169 | 59 | 0 | 0 | 228 | 835 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 8 | 7 | 0 | 0 | 15 | 7 | 59 | 0 | 0 | 66 | 104 | 64 | 0 | 0 | 168 | 249 |
| 4:15 PM | 2 | 19 | 0 | 0 | 21 | 5 | 60 | 0 | 0 | 65 | 140 | 54 | 0 | 0 | 194 | 280 |
| 4:30 PM | 8 | 16 | 0 | 0 | 24 | 9 | 45 | 0 | 0 | 54 | 142 | 59 | 0 | 0 | 201 | 279 |
| 4:45 PM | 7 | 14 | 0 | 0 | 21 | 12 | 56 | 0 | 0 | 68 | 143 | 87 | 0 | 0 | 230 | 319 |
| Hourly Total | 25 | 56 | 0 | 0 | 81 | 33 | 220 | 0 | 0 | 253 | 529 | 264 | 0 | 0 | 793 | 1127 |
| 5:00 PM | 9 | 15 | 0 | 0 | 24 | 9 | 49 | 0 | 0 | 58 | 131 | 67 | 0 | 0 | 198 | 280 |
| 5:15 PM | 3 | 16 | 0 | 0 | 19 | 10 | 48 | 0 | 0 | 58 | 166 | 74 | 0 | 0 | 240 | 317 |
| 5:30 PM | 7 | 11 | 0 | 0 | 18 | 5 | 49 | 0 | 0 | 54 | 139 | 53 | 0 | 0 | 192 | 264 |
| 5:45 PM | 8 | 13 | 0 | 0 | 21 | 6 | 35 | 0 | 0 | 41 | 112 | 40 | 0 | 0 | 152 | 214 |
| Hourly Total | 27 | 55 | 0 | 0 | 82 | 30 | 181 | 0 | 0 | 211 | 548 | 234 | 0 | 0 | 782 | 1075 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 215 | 182 | 0 | 0 | 397 | 140 | 1412 | 0 | 0 | 1552 | 1424 | 608 | 0 | 0 | 2032 | 3981 |
| Approach % | 54.2 | 45.8 | 0.0 | - | - | 9.0 | 91.0 | 0.0 | - | - | 70.1 | 29.9 | 0.0 | - | - | - |
| Total % | 5.4 | 4.6 | 0.0 | - | 10.0 | 3.5 | 35.5 | 0.0 | - | 39.0 | 35.8 | 15.3 | 0.0 | - | 51.0 | - |
| Lights | 180 | 142 | 0 | - | 322 | 116 | 1297 | 0 | - | 1413 | 1244 | 562 | 0 | - | 1806 | 3541 |
| % Lights | 83.7 | 78.0 | - | - | 81.1 | 82.9 | 91.9 | - | - | 91.0 | 87.4 | 92.4 | - | - | 88.9 | 88.9 |
| Buses | 4 | 17 | 0 | - | 21 | 5 | 30 | 0 | - | 35 | 87 | 7 | 0 | - | 94 | 150 |
| % Buses | 1.9 | 9.3 | - | - | 5.3 | 3.6 | 2.1 | - | - | 2.3 | 6.1 | 1.2 | - | - | 4.6 | 3.8 |
| Trucks | 31 | 23 | 0 | - | 54 | 19 | 85 | 0 | - | 104 | 93 | 39 | 0 | - | 132 | 290 |
| % Trucks | 14.4 | 12.6 | - | - | 13.6 | 13.6 | 6.0 | - | - | 6.7 | 6.5 | 6.4 | - | - | 6.5 | 7.3 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Albany, NY
NY 32/NY 144
Tuesday, February 5, 2019
Location: 42.619459, -73.766358

Count Name: NY 32 / NY 144
Site Code: Glenmont, New York
Start Date: 02/05/2019
Page No: 2

NY 32 / 144 (River Road)

| Out | In | Total |
|---|---|---|
| 1477 | 1806 | 3283 |
| 34 | 94 | 128 |
| 116 | 132 | 248 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1627** | **2032** | **3659** |

| R | T | U | P |
|---|---|---|---|
| 562 | 1244 | 0 | 0 |
| 7 | 87 | 0 | 0 |
| 39 | 93 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **608** | **1424** | **0** | **0** |

Corning Hill Rd (NY 32) [EB]

| Out | In | Total |
|---|---|---|
| 678 | 322 | 1000 |
| 12 | 21 | 33 |
| 58 | 54 | 112 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **748** | **397** | **1145** |

| U | L | R | P |
|---|---|---|---|
| 0 | 180 | 142 | 0 |
| 0 | 4 | 17 | 0 |
| 0 | 31 | 23 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **215** | **182** | **0** |

02/05/2019 7:00 AM
Ending At
02/05/2019 6:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 116 | 1297 | 0 |
| 0 | 5 | 30 | 0 |
| 0 | 19 | 85 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **140** | **1412** | **0** |

| Out | In | Total |
|---|---|---|
| 1386 | 1413 | 2799 |
| 104 | 35 | 139 |
| 116 | 104 | 220 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1606** | **1552** | **3158** |

NY 144 (River Road) [NB]

Turning Movement Data Plot

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# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Corning Hill Rd (NY 32) Eastbound | | | | | NY 144 (River Road) Northbound | | | | | NY 32 / 144 (River Road) Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:30 AM | 27 | 12 | 0 | 0 | 39 | 15 | 170 | 0 | 0 | 185 | 38 | 18 | 0 | 0 | 56 | 280 |
| 7:45 AM | 22 | 11 | 0 | 0 | 33 | 14 | 164 | 0 | 0 | 178 | 57 | 6 | 0 | 0 | 63 | 274 |
| 8:00 AM | 21 | 13 | 0 | 0 | 34 | 7 | 122 | 0 | 0 | 129 | 43 | 10 | 0 | 0 | 53 | 216 |
| 8:15 AM | 22 | 7 | 0 | 0 | 29 | 14 | 130 | 0 | 0 | 144 | 53 | 13 | 0 | 0 | 66 | 239 |
| Total | 92 | 43 | 0 | 0 | 135 | 50 | 586 | 0 | 0 | 636 | 191 | 47 | 0 | 0 | 238 | 1009 |
| Approach % | 68.1 | 31.9 | 0.0 | - | - | 7.9 | 92.1 | 0.0 | - | - | 80.3 | 19.7 | 0.0 | - | - | - |
| Total % | 9.1 | 4.3 | 0.0 | - | 13.4 | 5.0 | 58.1 | 0.0 | - | 63.0 | 18.9 | 4.7 | 0.0 | - | 23.6 | - |
| PHF | 0.852 | 0.827 | 0.000 | - | 0.865 | 0.833 | 0.862 | 0.000 | - | 0.859 | 0.838 | 0.653 | 0.000 | - | 0.902 | 0.901 |
| Lights | 80 | 31 | 0 | - | 111 | 40 | 535 | 0 | - | 575 | 148 | 34 | 0 | - | 182 | 868 |
| % Lights | 87.0 | 72.1 | - | - | 82.2 | 80.0 | 91.3 | - | - | 90.4 | 77.5 | 72.3 | - | - | 76.5 | 86.0 |
| Buses | 1 | 3 | 0 | - | 4 | 2 | 8 | 0 | - | 10 | 11 | 1 | 0 | - | 12 | 26 |
| % Buses | 1.1 | 7.0 | - | - | 3.0 | 4.0 | 1.4 | - | - | 1.6 | 5.8 | 2.1 | - | - | 5.0 | 2.6 |
| Trucks | 11 | 9 | 0 | - | 20 | 8 | 43 | 0 | - | 51 | 32 | 12 | 0 | - | 44 | 115 |
| % Trucks | 12.0 | 20.9 | - | - | 14.8 | 16.0 | 7.3 | - | - | 8.0 | 16.8 | 25.5 | - | - | 18.5 | 11.4 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

NY 32 / 144 (River Road)

| Out | In | Total |
|---|---|---|
| 615 | 182 | 797 |
| 9 | 12 | 21 |
| 54 | 44 | 98 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **678** | **238** | **916** |

| R | T | U | P |
|---|---|---|---|
| 34 | 148 | 0 | 0 |
| 1 | 11 | 0 | 0 |
| 12 | 32 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **47** | **191** | **0** | **0** |

Corning Hill Rd (NY 32) [EB]

| Out | In | Total |
|---|---|---|
| 74 | 111 | 185 |
| 3 | 4 | 7 |
| 20 | 20 | 40 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **97** | **135** | **232** |

| U | L | R | P |
|---|---|---|---|
| 0 | 80 | 31 | 0 |
| 0 | 1 | 3 | 0 |
| 0 | 11 | 9 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **92** | **43** | **0** |

## Peak Hour Data

02/05/2019 7:30 AM
Ending At
02/05/2019 8:30 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 40 | 535 | 0 |
| 0 | 2 | 8 | 0 |
| 0 | 8 | 43 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **50** | **586** | **0** |

| Out | In | Total |
|---|---|---|
| 179 | 575 | 754 |
| 14 | 10 | 24 |
| 41 | 51 | 92 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **234** | **636** | **870** |

NY 144 (River Road) [NB]

Turning Movement Peak Hour Data Plot (7:30 AM)

TRI-STATE TRAFFIC DATA

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Albany, NY
NY 32/NY 144
Tuesday, February 5, 2019
Location: 42.619459, -73.766358

Count Name: NY 32 / NY 144
Site Code: Glenmont, New York
Start Date: 02/05/2019


## Turning Movement Peak Hour Data (4:30 PM)

| Start Time | Corning Hill Rd (NY 32) Eastbound | | | | | NY 144 (River Road) Northbound | | | | | NY 32 / 144 (River Road) Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 4:30 PM | 8 | 16 | 0 | 0 | 24 | 9 | 45 | 0 | 0 | 54 | 142 | 59 | 0 | 0 | 201 | 279 |
| 4:45 PM | 7 | 14 | 0 | 0 | 21 | 12 | 56 | 0 | 0 | 68 | 143 | 87 | 0 | 0 | 230 | 319 |
| 5:00 PM | 9 | 15 | 0 | 0 | 24 | 9 | 49 | 0 | 0 | 58 | 131 | 67 | 0 | 0 | 198 | 280 |
| 5:15 PM | 3 | 16 | 0 | 0 | 19 | 10 | 48 | 0 | 0 | 58 | 166 | 74 | 0 | 0 | 240 | 317 |
| Total | 27 | 61 | 0 | 0 | 88 | 40 | 198 | 0 | 0 | 238 | 582 | 287 | 0 | 0 | 869 | 1195 |
| Approach % | 30.7 | 69.3 | 0.0 | - | - | 16.8 | 83.2 | 0.0 | - | - | 67.0 | 33.0 | 0.0 | - | - | - |
| Total % | 2.3 | 5.1 | 0.0 | - | 7.4 | 3.3 | 16.6 | 0.0 | - | 19.9 | 48.7 | 24.0 | 0.0 | - | 72.7 | - |
| PHF | 0.750 | 0.953 | 0.000 | - | 0.917 | 0.833 | 0.884 | 0.000 | - | 0.875 | 0.877 | 0.825 | 0.000 | - | 0.905 | 0.937 |
| Lights | 19 | 53 | 0 | - | 72 | 36 | 185 | 0 | - | 221 | 541 | 281 | 0 | - | 822 | 1115 |
| % Lights | 70.4 | 86.9 | - | - | 81.8 | 90.0 | 93.4 | - | - | 92.9 | 93.0 | 97.9 | - | - | 94.6 | 93.3 |
| Buses | 2 | 4 | 0 | - | 6 | 1 | 6 | 0 | - | 7 | 29 | 1 | 0 | - | 30 | 43 |
| % Buses | 7.4 | 6.6 | - | - | 6.8 | 2.5 | 3.0 | - | - | 2.9 | 5.0 | 0.3 | - | - | 3.5 | 3.6 |
| Trucks | 6 | 4 | 0 | - | 10 | 3 | 7 | 0 | - | 10 | 12 | 5 | 0 | - | 17 | 37 |
| % Trucks | 22.2 | 6.6 | - | - | 11.4 | 7.5 | 3.5 | - | - | 4.2 | 2.1 | 1.7 | - | - | 2.0 | 3.1 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Albany, NY
NY 32/NY 144
Tuesday, February 5, 2019
Location: 42.619459, -73.766358

Count Name: NY 32 / NY 144
Site Code: Glenmont, New York
Start Date: 02/05/2019


NY 32 / 144 (River Road)

| Out | In | Total |
|---|---|---|
| 204 | 822 | 1026 |
| 8 | 30 | 38 |
| 13 | 17 | 30 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **225** | **869** | **1094** |

| R | T | U | P |
|---|---|---|---|
| 281 | 541 | 0 | 0 |
| 1 | 29 | 0 | 0 |
| 5 | 12 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **287** | **582** | **0** | **0** |

Corning Hill Rd (NY 32) [EB]

| Out | In | Total |
|---|---|---|
| 317 | 72 | 389 |
| 2 | 6 | 8 |
| 8 | 10 | 18 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **327** | **88** | **415** |

| U | L | R | P |
|---|---|---|---|
| 0 | 19 | 53 | 0 |
| 0 | 2 | 4 | 0 |
| 0 | 6 | 4 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **27** | **61** | **0** |

## Peak Hour Data

02/05/2019 4:30 PM
Ending At
02/05/2019 5:30 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 36 | 185 | 0 |
| 0 | 1 | 6 | 0 |
| 0 | 3 | 7 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **40** | **198** | **0** |

| Out | In | Total |
|---|---|---|
| 594 | 221 | 815 |
| 33 | 7 | 40 |
| 16 | 10 | 26 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **643** | **238** | **881** |

NY 144 (River Road) [NB]

Turning Movement Peak Hour Data Plot (4:30 PM)

TRI-STATE TRAFFIC DATA

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184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Albany, NY
NY 144 / Glenmont Road
Tuesday, February 5, 2019
Location: 42.604997, -73.769906

Count Name: NY 144 / Glenmont Rd
Site Code: Glenmont, New York
Start Date: 02/05/2019
Page No: 1

# Turning Movement Data

| Start Time | Glenmont Rd Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 22 | 5 | 0 | 0 | 27 | 2 | 70 | 0 | 0 | 72 | 45 | 9 | 0 | 0 | 54 | 153 |
| 7:15 AM | 27 | 1 | 0 | 0 | 28 | 2 | 131 | 0 | 0 | 133 | 32 | 12 | 0 | 0 | 44 | 205 |
| 7:30 AM | 43 | 1 | 0 | 0 | 44 | 4 | 148 | 0 | 0 | 152 | 41 | 10 | 0 | 0 | 51 | 247 |
| 7:45 AM | 44 | 6 | 0 | 0 | 50 | 7 | 105 | 0 | 0 | 112 | 49 | 17 | 0 | 0 | 66 | 228 |
| Hourly Total | 136 | 13 | 0 | 0 | 149 | 15 | 454 | 0 | 0 | 469 | 167 | 48 | 0 | 0 | 215 | 833 |
| 8:00 AM | 39 | 7 | 0 | 0 | 46 | 4 | 101 | 0 | 0 | 105 | 35 | 17 | 0 | 0 | 52 | 203 |
| 8:15 AM | 45 | 2 | 0 | 0 | 47 | 3 | 68 | 0 | 0 | 71 | 39 | 11 | 0 | 0 | 50 | 168 |
| 8:30 AM | 48 | 4 | 0 | 0 | 52 | 5 | 76 | 0 | 0 | 81 | 27 | 16 | 0 | 0 | 43 | 176 |
| 8:45 AM | 23 | 3 | 0 | 0 | 26 | 1 | 67 | 0 | 0 | 68 | 20 | 12 | 0 | 0 | 32 | 126 |
| Hourly Total | 155 | 16 | 0 | 0 | 171 | 13 | 312 | 0 | 0 | 325 | 121 | 56 | 0 | 0 | 177 | 673 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 11 | 8 | 0 | 0 | 19 | 2 | 51 | 0 | 0 | 53 | 64 | 50 | 0 | 0 | 114 | 186 |
| 4:15 PM | 11 | 5 | 0 | 0 | 16 | 4 | 39 | 0 | 0 | 43 | 89 | 68 | 0 | 0 | 157 | 216 |
| 4:30 PM | 19 | 8 | 0 | 0 | 27 | 3 | 32 | 0 | 0 | 35 | 89 | 61 | 0 | 0 | 150 | 212 |
| 4:45 PM | 13 | 10 | 0 | 0 | 23 | 5 | 51 | 0 | 0 | 56 | 87 | 57 | 0 | 0 | 144 | 223 |
| Hourly Total | 54 | 31 | 0 | 0 | 85 | 14 | 173 | 0 | 0 | 187 | 329 | 236 | 0 | 0 | 565 | 837 |
| 5:00 PM | 8 | 6 | 0 | 0 | 14 | 3 | 45 | 0 | 0 | 48 | 74 | 60 | 0 | 0 | 134 | 196 |
| 5:15 PM | 13 | 6 | 0 | 0 | 19 | 9 | 40 | 0 | 0 | 49 | 112 | 78 | 0 | 0 | 190 | 258 |
| 5:30 PM | 13 | 3 | 0 | 0 | 16 | 4 | 31 | 0 | 0 | 35 | 76 | 63 | 0 | 0 | 139 | 190 |
| 5:45 PM | 5 | 2 | 0 | 0 | 7 | 6 | 23 | 0 | 0 | 29 | 67 | 48 | 0 | 0 | 115 | 151 |
| Hourly Total | 39 | 17 | 0 | 0 | 56 | 22 | 139 | 0 | 0 | 161 | 329 | 249 | 0 | 0 | 578 | 795 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| Grand Total | 384 | 77 | 0 | 0 | 461 | 64 | 1078 | 0 | 0 | 1142 | 947 | 589 | 0 | 0 | 1536 | 3139 |
| Approach % | 83.3 | 16.7 | 0.0 | - | - | 5.6 | 94.4 | 0.0 | - | - | 61.7 | 38.3 | 0.0 | - | - | - |
| Total % | 12.2 | 2.5 | 0.0 | - | 14.7 | 2.0 | 34.3 | 0.0 | - | 36.4 | 30.2 | 18.8 | 0.0 | - | 48.9 | - |
| Lights | 374 | 75 | 0 | - | 449 | 62 | 969 | 0 | - | 1031 | 826 | 568 | 0 | - | 1394 | 2874 |
| % Lights | 97.4 | 97.4 | - | - | 97.4 | 96.9 | 89.9 | - | - | 90.3 | 87.2 | 96.4 | - | - | 90.8 | 91.6 |
| Buses | 4 | 0 | 0 | - | 4 | 0 | 7 | 0 | - | 7 | 8 | 13 | 0 | - | 21 | 32 |
| % Buses | 1.0 | 0.0 | - | - | 0.9 | 0.0 | 0.6 | - | - | 0.6 | 0.8 | 2.2 | - | - | 1.4 | 1.0 |
| Trucks | 6 | 2 | 0 | - | 8 | 2 | 102 | 0 | - | 104 | 113 | 8 | 0 | - | 121 | 233 |
| % Trucks | 1.6 | 2.6 | - | - | 1.7 | 3.1 | 9.5 | - | - | 9.1 | 11.9 | 1.4 | - | - | 7.9 | 7.4 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

TRI-STATE TRAFFIC DATA

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Albany, NY
NY 144 / Glenmont Road
Tuesday, February 5, 2019
Location: 42.604997, -73.769906

Count Name: NY 144 / Glenmont Rd
Site Code: Glenmont, New York
Start Date: 02/05/2019
Page No: 2

NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 1343 | 1394 | 2737 |
| 11 | 21 | 32 |
| 108 | 121 | 229 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1462** | **1536** | **2998** |

| R | T | U | P |
|---|---|---|---|
| 568 | 826 | 0 | 0 |
| 13 | 8 | 0 | 0 |
| 8 | 113 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **589** | **947** | **0** | **0** |

Glenmont Rd [EB]

| Out | In | Total |
|---|---|---|
| 630 | 449 | 1079 |
| 13 | 4 | 17 |
| 10 | 8 | 18 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **653** | **461** | **1114** |

| U | L | R | P |
|---|---|---|---|
| 0 | 374 | 75 | 0 |
| 0 | 4 | 0 | 0 |
| 0 | 6 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **384** | **77** | **0** |

02/05/2019 7:00 AM
Ending At
02/05/2019 6:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 62 | 969 | 0 |
| 0 | 0 | 7 | 0 |
| 0 | 2 | 102 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **64** | **1078** | **0** |

| Out | In | Total |
|---|---|---|
| 901 | 1031 | 1932 |
| 8 | 7 | 15 |
| 115 | 104 | 219 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1024** | **1142** | **2166** |

NY 144 [NB]

Turning Movement Data Plot

Albany, NY
NY 144 / Glenmont Road
Tuesday, February 5, 2019
Location: 42.604997, -73.769906

Count Name: NY 144 / Glenmont Rd
Site Code: Glenmont, New York
Start Date: 02/05/2019


## Turning Movement Peak Hour Data (7:15 AM)

| Start Time | Glenmont Rd Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | |
| 7:15 AM | 27 | 1 | 0 | 0 | 28 | 2 | 131 | 0 | 0 | 133 | 32 | 12 | 0 | 0 | 44 | 205 |
| 7:30 AM | 43 | 1 | 0 | 0 | 44 | 4 | 148 | 0 | 0 | 152 | 41 | 10 | 0 | 0 | 51 | 247 |
| 7:45 AM | 44 | 6 | 0 | 0 | 50 | 7 | 105 | 0 | 0 | 112 | 49 | 17 | 0 | 0 | 66 | 228 |
| 8:00 AM | 39 | 7 | 0 | 0 | 46 | 4 | 101 | 0 | 0 | 105 | 35 | 17 | 0 | 0 | 52 | 203 |
| Total | 153 | 15 | 0 | 0 | 168 | 17 | 485 | 0 | 0 | 502 | 157 | 56 | 0 | 0 | 213 | 883 |
| Approach % | 91.1 | 8.9 | 0.0 | - | - | 3.4 | 96.6 | 0.0 | - | - | 73.7 | 26.3 | 0.0 | - | - | - |
| Total % | 17.3 | 1.7 | 0.0 | - | 19.0 | 1.9 | 54.9 | 0.0 | - | 56.9 | 17.8 | 6.3 | 0.0 | - | 24.1 | - |
| PHF | 0.869 | 0.536 | 0.000 | - | 0.840 | 0.607 | 0.819 | 0.000 | - | 0.826 | 0.801 | 0.824 | 0.000 | - | 0.807 | 0.894 |
| Lights | 149 | 15 | 0 | - | 164 | 15 | 431 | 0 | - | 446 | 123 | 50 | 0 | - | 173 | 783 |
| % Lights | 97.4 | 100.0 | - | - | 97.6 | 88.2 | 88.9 | - | - | 88.8 | 78.3 | 89.3 | - | - | 81.2 | 88.7 |
| Buses | 3 | 0 | 0 | - | 3 | 0 | 3 | 0 | - | 3 | 3 | 3 | 0 | - | 6 | 12 |
| % Buses | 2.0 | 0.0 | - | - | 1.8 | 0.0 | 0.6 | - | - | 0.6 | 1.9 | 5.4 | - | - | 2.8 | 1.4 |
| Trucks | 1 | 0 | 0 | - | 1 | 2 | 51 | 0 | - | 53 | 31 | 3 | 0 | - | 34 | 88 |
| % Trucks | 0.7 | 0.0 | - | - | 0.6 | 11.8 | 10.5 | - | - | 10.6 | 19.7 | 5.4 | - | - | 16.0 | 10.0 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Albany, NY
NY 144 / Glenmont Road
Tuesday, February 5, 2019
Location: 42.604997, -73.769906

Count Name: NY 144 / Glenmont Rd
Site Code: Glenmont, New York
Start Date: 02/05/2019


NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 580 | 173 | 753 |
| 6 | 6 | 12 |
| 52 | 34 | 86 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **638** | **213** | **851** |

| R | T | U | P |
|---|---|---|---|
| 50 | 123 | 0 | 0 |
| 3 | 3 | 0 | 0 |
| 3 | 31 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **56** | **157** | **0** | **0** |

Glenmont Rd [EB]

| Out | In | Total |
|---|---|---|
| 65 | 164 | 229 |
| 3 | 3 | 6 |
| 5 | 1 | 6 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **73** | **168** | **241** |

| U | L | R | P |
|---|---|---|---|
| 0 | 149 | 15 | 0 |
| 0 | 3 | 0 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **153** | **15** | **0** |

**Peak Hour Data**

02/05/2019 7:15 AM
Ending At
02/05/2019 8:15 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 15 | 431 | 0 |
| 0 | 0 | 3 | 0 |
| 0 | 2 | 51 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **17** | **485** | **0** |

| Out | In | Total |
|---|---|---|
| 138 | 446 | 584 |
| 3 | 3 | 6 |
| 31 | 53 | 84 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **172** | **502** | **674** |

NY 144 [NB]

Turning Movement Peak Hour Data Plot (7:15 AM)

TRI-STATE TRAFFIC DATA

Albany, NY
NY 144 / Glenmont Road
Tuesday, February 5, 2019
Location: 42.604997, -73.769906

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: NY 144 / Glenmont Rd
Site Code: Glenmont, New York
Start Date: 02/05/2019


## Turning Movement Peak Hour Data (4:30 PM)

| Start Time | Glenmont Rd Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 4:30 PM | 19 | 8 | 0 | 0 | 27 | 3 | 32 | 0 | 0 | 35 | 89 | 61 | 0 | 0 | 150 | 212 |
| 4:45 PM | 13 | 10 | 0 | 0 | 23 | 5 | 51 | 0 | 0 | 56 | 87 | 57 | 0 | 0 | 144 | 223 |
| 5:00 PM | 8 | 6 | 0 | 0 | 14 | 3 | 45 | 0 | 0 | 48 | 74 | 60 | 0 | 0 | 134 | 196 |
| 5:15 PM | 13 | 6 | 0 | 0 | 19 | 9 | 40 | 0 | 0 | 49 | 112 | 78 | 0 | 0 | 190 | 258 |
| Total | 53 | 30 | 0 | 0 | 83 | 20 | 168 | 0 | 0 | 188 | 362 | 256 | 0 | 0 | 618 | 889 |
| Approach % | 63.9 | 36.1 | 0.0 | - | - | 10.6 | 89.4 | 0.0 | - | - | 58.6 | 41.4 | 0.0 | - | - | - |
| Total % | 6.0 | 3.4 | 0.0 | - | 9.3 | 2.2 | 18.9 | 0.0 | - | 21.1 | 40.7 | 28.8 | 0.0 | - | 69.5 | - |
| PHF | 0.697 | 0.750 | 0.000 | - | 0.769 | 0.556 | 0.824 | 0.000 | - | 0.839 | 0.808 | 0.821 | 0.000 | - | 0.813 | 0.861 |
| Lights | 51 | 30 | 0 | - | 81 | 20 | 159 | 0 | - | 179 | 343 | 253 | 0 | - | 596 | 856 |
| % Lights | 96.2 | 100.0 | - | - | 97.6 | 100.0 | 94.6 | - | - | 95.2 | 94.8 | 98.8 | - | - | 96.4 | 96.3 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 0 | - | 3 | 3 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 1.2 | - | - | 0.5 | 0.3 |
| Trucks | 2 | 0 | 0 | - | 2 | 0 | 9 | 0 | - | 9 | 19 | 0 | 0 | - | 19 | 30 |
| % Trucks | 3.8 | 0.0 | - | - | 2.4 | 0.0 | 5.4 | - | - | 4.8 | 5.2 | 0.0 | - | - | 3.1 | 3.4 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

## Peak Hour Data

02/05/2019 4:30 PM
Ending At
02/05/2019 5:30 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 210 | 596 | 806 |
| 0 | 3 | 3 |
| 11 | 19 | 30 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **221** | **618** | **839** |

| R | T | U | P |
|---|---|---|---|
| 253 | 343 | 0 | 0 |
| 3 | 0 | 0 | 0 |
| 0 | 19 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **256** | **362** | **0** | **0** |

Glenmont Rd [EB]

| Out | In | Total |
|---|---|---|
| 273 | 81 | 354 |
| 3 | 0 | 3 |
| 0 | 2 | 2 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **276** | **83** | **359** |

| U | L | R | P |
|---|---|---|---|
| 0 | 51 | 30 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 2 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **53** | **30** | **0** |

NY 144 [NB]

| U | L | T | P |
|---|---|---|---|
| 0 | 20 | 159 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 9 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **20** | **168** | **0** |

| Out | In | Total |
|---|---|---|
| 373 | 179 | 552 |
| 0 | 0 | 0 |
| 19 | 9 | 28 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **392** | **188** | **580** |

Turning Movement Peak Hour Data Plot (4:30 PM)

Albany, NY
NY 144 / NY State Thruway Access
Tuesday, February 5, 2019
Location: 42.534276, -73.778231

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: NY 144 / New York State Thruway
Site Code: Bethlehem, New York
Start Date: 02/05/2019


# Turning Movement Data

| | NYS Thruway Access Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 11 | 49 | 0 | 0 | 60 | 87 | 64 | 0 | 0 | 151 | 11 | 20 | 0 | 0 | 31 | 242 |
| 7:15 AM | 10 | 45 | 0 | 0 | 55 | 74 | 86 | 0 | 0 | 160 | 14 | 29 | 0 | 0 | 43 | 258 |
| 7:30 AM | 16 | 36 | 0 | 0 | 52 | 68 | 92 | 0 | 0 | 160 | 11 | 33 | 0 | 0 | 44 | 256 |
| 7:45 AM | 16 | 32 | 0 | 0 | 48 | 57 | 56 | 0 | 0 | 113 | 14 | 33 | 0 | 0 | 47 | 208 |
| Hourly Total | 53 | 162 | 0 | 0 | 215 | 286 | 298 | 0 | 0 | 584 | 50 | 115 | 0 | 0 | 165 | 964 |
| 8:00 AM | 8 | 30 | 0 | 0 | 38 | 74 | 40 | 0 | 0 | 114 | 16 | 28 | 0 | 0 | 44 | 196 |
| 8:15 AM | 13 | 27 | 0 | 0 | 40 | 53 | 54 | 0 | 0 | 107 | 22 | 19 | 0 | 0 | 41 | 188 |
| 8:30 AM | 17 | 33 | 0 | 0 | 50 | 55 | 37 | 0 | 0 | 92 | 17 | 9 | 0 | 0 | 26 | 168 |
| 8:45 AM | 10 | 33 | 0 | 0 | 43 | 28 | 33 | 0 | 0 | 61 | 9 | 12 | 0 | 0 | 21 | 125 |
| Hourly Total | 48 | 123 | 0 | 0 | 171 | 210 | 164 | 0 | 0 | 374 | 64 | 68 | 0 | 0 | 132 | 677 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 11 | 41 | 0 | 0 | 52 | 46 | 26 | 0 | 0 | 72 | 44 | 10 | 0 | 0 | 54 | 178 |
| 4:15 PM | 13 | 56 | 0 | 0 | 69 | 34 | 22 | 0 | 0 | 56 | 58 | 13 | 0 | 0 | 71 | 196 |
| 4:30 PM | 12 | 61 | 0 | 0 | 73 | 58 | 27 | 0 | 0 | 85 | 57 | 23 | 0 | 1 | 80 | 238 |
| 4:45 PM | 17 | 58 | 0 | 0 | 75 | 26 | 29 | 0 | 0 | 55 | 35 | 14 | 0 | 0 | 49 | 179 |
| Hourly Total | 53 | 216 | 0 | 0 | 269 | 164 | 104 | 0 | 0 | 268 | 194 | 60 | 0 | 1 | 254 | 791 |
| 5:00 PM | 12 | 55 | 0 | 0 | 67 | 37 | 21 | 0 | 0 | 58 | 46 | 18 | 0 | 0 | 64 | 189 |
| 5:15 PM | 18 | 76 | 0 | 0 | 94 | 29 | 25 | 0 | 0 | 54 | 59 | 20 | 0 | 0 | 79 | 227 |
| 5:30 PM | 12 | 54 | 0 | 0 | 66 | 19 | 16 | 0 | 0 | 35 | 58 | 10 | 0 | 0 | 68 | 169 |
| 5:45 PM | 16 | 47 | 0 | 0 | 63 | 29 | 14 | 0 | 0 | 43 | 32 | 7 | 0 | 0 | 39 | 145 |
| Hourly Total | 58 | 232 | 0 | 0 | 290 | 114 | 76 | 0 | 0 | 190 | 195 | 55 | 0 | 0 | 250 | 730 |
| Grand Total | 212 | 733 | 0 | 0 | 945 | 774 | 642 | 0 | 0 | 1416 | 503 | 298 | 0 | 1 | 801 | 3162 |
| Approach % | 22.4 | 77.6 | 0.0 | - | - | 54.7 | 45.3 | 0.0 | - | - | 62.8 | 37.2 | 0.0 | - | - | - |
| Total % | 6.7 | 23.2 | 0.0 | - | 29.9 | 24.5 | 20.3 | 0.0 | - | 44.8 | 15.9 | 9.4 | 0.0 | - | 25.3 | - |
| Lights | 180 | 653 | 0 | - | 833 | 682 | 583 | 0 | - | 1265 | 450 | 259 | 0 | - | 709 | 2807 |
| % Lights | 84.9 | 89.1 | - | - | 88.1 | 88.1 | 90.8 | - | - | 89.3 | 89.5 | 86.9 | - | - | 88.5 | 88.8 |
| Buses | 2 | 4 | 0 | - | 6 | 5 | 5 | 0 | - | 10 | 7 | 1 | 0 | - | 8 | 24 |
| % Buses | 0.9 | 0.5 | - | - | 0.6 | 0.6 | 0.8 | - | - | 0.7 | 1.4 | 0.3 | - | - | 1.0 | 0.8 |
| Trucks | 30 | 76 | 0 | - | 106 | 87 | 54 | 0 | - | 141 | 46 | 38 | 0 | - | 84 | 331 |
| % Trucks | 14.2 | 10.4 | - | - | 11.2 | 11.2 | 8.4 | - | - | 10.0 | 9.1 | 12.8 | - | - | 10.5 | 10.5 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 763 | 709 | 1472 |
| 7 | 8 | 15 |
| 84 | 84 | 168 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **854** | **801** | **1655** |

| R | T | U | P |
|---|---|---|---|
| 259 | 450 | 0 | 0 |
| 1 | 7 | 0 | 0 |
| 38 | 46 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 |
| **298** | **503** | **0** | **1** |

NYS Thruway Access [EB]

| Out | In | Total |
|---|---|---|
| 941 | 833 | 1774 |
| 6 | 6 | 12 |
| 125 | 106 | 231 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1072** | **945** | **2017** |

| U | L | R | P |
|---|---|---|---|
| 0 | 180 | 653 | 0 |
| 0 | 2 | 4 | 0 |
| 0 | 30 | 76 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **212** | **733** | **0** |

02/05/2019 7:00 AM
Ending At
02/05/2019 6:00 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 682 | 583 | 0 |
| 0 | 5 | 5 | 0 |
| 0 | 87 | 54 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **774** | **642** | **0** |

| Out | In | Total |
|---|---|---|
| 1103 | 1265 | 2368 |
| 11 | 10 | 21 |
| 122 | 141 | 263 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1236** | **1416** | **2652** |

NY 144 [NB]

Turning Movement Data Plot

TRI-STATE TRAFFIC DATA

Albany, NY
NY 144 / NY State Thruway Access
Tuesday, February 5, 2019
Location: 42.534276, -73.778231

www.TSTData.com
184 Baker Rd

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610-466-1469
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# Turning Movement Peak Hour Data (7:00 AM)

| Start Time | NYS Thruway Access Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 11 | 49 | 0 | 0 | 60 | 87 | 64 | 0 | 0 | 151 | 11 | 20 | 0 | 0 | 31 | 242 |
| 7:15 AM | 10 | 45 | 0 | 0 | 55 | 74 | 86 | 0 | 0 | 160 | 14 | 29 | 0 | 0 | 43 | 258 |
| 7:30 AM | 16 | 36 | 0 | 0 | 52 | 68 | 92 | 0 | 0 | 160 | 11 | 33 | 0 | 0 | 44 | 256 |
| 7:45 AM | 16 | 32 | 0 | 0 | 48 | 57 | 56 | 0 | 0 | 113 | 14 | 33 | 0 | 0 | 47 | 208 |
| Total | 53 | 162 | 0 | 0 | 215 | 286 | 298 | 0 | 0 | 584 | 50 | 115 | 0 | 0 | 165 | 964 |
| Approach % | 24.7 | 75.3 | 0.0 | - | - | 49.0 | 51.0 | 0.0 | - | - | 30.3 | 69.7 | 0.0 | - | - | - |
| Total % | 5.5 | 16.8 | 0.0 | - | 22.3 | 29.7 | 30.9 | 0.0 | - | 60.6 | 5.2 | 11.9 | 0.0 | - | 17.1 | - |
| PHF | 0.828 | 0.827 | 0.000 | - | 0.896 | 0.822 | 0.810 | 0.000 | - | 0.913 | 0.893 | 0.871 | 0.000 | - | 0.878 | 0.934 |
| Lights | 48 | 130 | 0 | - | 178 | 257 | 267 | 0 | - | 524 | 41 | 96 | 0 | - | 137 | 839 |
| % Lights | 90.6 | 80.2 | - | - | 82.8 | 89.9 | 89.6 | - | - | 89.7 | 82.0 | 83.5 | - | - | 83.0 | 87.0 |
| Buses | 0 | 0 | 0 | - | 0 | 4 | 3 | 0 | - | 7 | 2 | 1 | 0 | - | 3 | 10 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 1.4 | 1.0 | - | - | 1.2 | 4.0 | 0.9 | - | - | 1.8 | 1.0 |
| Trucks | 5 | 32 | 0 | - | 37 | 25 | 28 | 0 | - | 53 | 7 | 18 | 0 | - | 25 | 115 |
| % Trucks | 9.4 | 19.8 | - | - | 17.2 | 8.7 | 9.4 | - | - | 9.1 | 14.0 | 15.7 | - | - | 15.2 | 11.9 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

**NY 144 [SB]**

| Out | In | Total |
|---|---|---|
| 315 | 137 | 452 |
| 3 | 3 | 6 |
| 33 | 25 | 58 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **351** | **165** | **516** |

| R | T | U | P |
|---|---|---|---|
| 96 | 41 | 0 | 0 |
| 1 | 2 | 0 | 0 |
| 18 | 7 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **115** | **50** | **0** | **0** |

**NYS Thruway Access [EB]**

| Out | In | Total |
|---|---|---|
| 353 | 178 | 531 |
| 5 | 0 | 5 |
| 43 | 37 | 80 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **401** | **215** | **616** |

| U | L | R | P |
|---|---|---|---|
| 0 | 48 | 130 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 5 | 32 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **53** | **162** | **0** |

## Peak Hour Data

02/05/2019 7:00 AM
Ending At
02/05/2019 8:00 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 257 | 267 | 0 |
| 0 | 4 | 3 | 0 |
| 0 | 25 | 28 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **286** | **298** | **0** |

| Out | In | Total |
|---|---|---|
| 171 | 524 | 695 |
| 2 | 7 | 9 |
| 39 | 53 | 92 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **212** | **584** | **796** |

**NY 144 [NB]**

Turning Movement Peak Hour Data Plot (7:00 AM)

# Turning Movement Peak Hour Data (4:30 PM)

| | NYS Thruway Access Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 4:30 PM | 12 | 61 | 0 | 0 | 73 | 58 | 27 | 0 | 0 | 85 | 57 | 23 | 0 | 1 | 80 | 238 |
| 4:45 PM | 17 | 58 | 0 | 0 | 75 | 26 | 29 | 0 | 0 | 55 | 35 | 14 | 0 | 0 | 49 | 179 |
| 5:00 PM | 12 | 55 | 0 | 0 | 67 | 37 | 21 | 0 | 0 | 58 | 46 | 18 | 0 | 0 | 64 | 189 |
| 5:15 PM | 18 | 76 | 0 | 0 | 94 | 29 | 25 | 0 | 0 | 54 | 59 | 20 | 0 | 0 | 79 | 227 |
| Total | 59 | 250 | 0 | 0 | 309 | 150 | 102 | 0 | 0 | 252 | 197 | 75 | 0 | 1 | 272 | 833 |
| Approach % | 19.1 | 80.9 | 0.0 | - | - | 59.5 | 40.5 | 0.0 | - | - | 72.4 | 27.6 | 0.0 | - | - | - |
| Total % | 7.1 | 30.0 | 0.0 | - | 37.1 | 18.0 | 12.2 | 0.0 | - | 30.3 | 23.6 | 9.0 | 0.0 | - | 32.7 | - |
| PHF | 0.819 | 0.822 | 0.000 | - | 0.822 | 0.647 | 0.879 | 0.000 | - | 0.741 | 0.835 | 0.815 | 0.000 | - | 0.850 | 0.875 |
| Lights | 52 | 243 | 0 | - | 295 | 137 | 94 | 0 | - | 231 | 189 | 69 | 0 | - | 258 | 784 |
| % Lights | 88.1 | 97.2 | - | - | 95.5 | 91.3 | 92.2 | - | - | 91.7 | 95.9 | 92.0 | - | - | 94.9 | 94.1 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 2 | 0 | - | 2 | 2 | 0 | 0 | - | 2 | 4 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 2.0 | - | - | 0.8 | 1.0 | 0.0 | - | - | 0.7 | 0.5 |
| Trucks | 7 | 7 | 0 | - | 14 | 13 | 6 | 0 | - | 19 | 6 | 6 | 0 | - | 12 | 45 |
| % Trucks | 11.9 | 2.8 | - | - | 4.5 | 8.7 | 5.9 | - | - | 7.5 | 3.0 | 8.0 | - | - | 4.4 | 5.4 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - |

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Albany, NY
NY 144 / NY State Thruway Access
Tuesday, February 5, 2019
Location: 42.534276, -73.778231

Count Name: NY 144 / New York State Thruway
Site Code: Bethlehem, New York
Start Date: 02/05/2019


NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 146 | 258 | 404 |
| 2 | 2 | 4 |
| 13 | 12 | 25 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **161** | **272** | **433** |

| R | T | U | P |
|---|---|---|---|
| 69 | 189 | 0 | 0 |
| 0 | 2 | 0 | 0 |
| 6 | 6 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 |
| **75** | **197** | **0** | **1** |

NYS Thruway Access [EB]

| Out | In | Total |
|---|---|---|
| 206 | 295 | 501 |
| 0 | 0 | 0 |
| 19 | 14 | 33 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **225** | **309** | **534** |

| U | L | R | P |
|---|---|---|---|
| 0 | 52 | 243 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 7 | 7 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **59** | **250** | **0** |

**Peak Hour Data**

02/05/2019 4:30 PM
Ending At
02/05/2019 5:30 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 137 | 94 | 0 |
| 0 | 0 | 2 | 0 |
| 0 | 13 | 6 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **150** | **102** | **0** |

| Out | In | Total |
|---|---|---|
| 432 | 231 | 663 |
| 2 | 2 | 4 |
| 13 | 19 | 32 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **447** | **252** | **699** |

NY 144 [NB]

Turning Movement Peak Hour Data Plot (4:30 PM)

Albany, NY
US 9W/NY 32
Wednesday, February 6. 2019
Location: 42.620891, -73.778155

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Count Name: US 9W / NY 32
Site Code: Glenmont, New York
Start Date: 02/06/2019


# Turning Movement Data

| Start Time | NY 32 Westbound | | | | | US 9W Northbound | | | | | US 9W Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 19 | 37 | 0 | 0 | 56 | 320 | 33 | 0 | 0 | 353 | 16 | 162 | 0 | 0 | 178 | 587 |
| 7:15 AM | 16 | 39 | 0 | 0 | 55 | 455 | 31 | 0 | 0 | 486 | 15 | 160 | 0 | 0 | 175 | 716 |
| 7:30 AM | 22 | 30 | 0 | 0 | 52 | 485 | 35 | 0 | 0 | 520 | 19 | 159 | 0 | 0 | 178 | 750 |
| 7:45 AM | 23 | 41 | 0 | 0 | 64 | 492 | 41 | 0 | 0 | 533 | 18 | 183 | 0 | 0 | 201 | 798 |
| Hourly Total | 80 | 147 | 0 | 0 | 227 | 1752 | 140 | 0 | 0 | 1892 | 68 | 664 | 0 | 0 | 732 | 2851 |
| 8:00 AM | 17 | 32 | 0 | 0 | 49 | 394 | 50 | 0 | 0 | 444 | 25 | 182 | 0 | 0 | 207 | 700 |
| 8:15 AM | 22 | 35 | 0 | 0 | 57 | 459 | 22 | 0 | 0 | 481 | 29 | 214 | 0 | 0 | 243 | 781 |
| 8:30 AM | 8 | 38 | 0 | 0 | 46 | 419 | 28 | 0 | 0 | 447 | 17 | 134 | 0 | 0 | 151 | 644 |
| 8:45 AM | 27 | 21 | 0 | 0 | 48 | 315 | 22 | 0 | 0 | 337 | 16 | 166 | 0 | 0 | 182 | 567 |
| Hourly Total | 74 | 126 | 0 | 0 | 200 | 1587 | 122 | 0 | 0 | 1709 | 87 | 696 | 0 | 0 | 783 | 2692 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 56 | 36 | 0 | 0 | 92 | 234 | 14 | 0 | 0 | 248 | 16 | 292 | 0 | 0 | 308 | 648 |
| 4:15 PM | 56 | 25 | 0 | 0 | 81 | 230 | 18 | 0 | 0 | 248 | 19 | 346 | 0 | 0 | 365 | 694 |
| 4:30 PM | 63 | 17 | 0 | 0 | 80 | 272 | 19 | 0 | 0 | 291 | 19 | 312 | 0 | 0 | 331 | 702 |
| 4:45 PM | 77 | 20 | 0 | 0 | 97 | 249 | 26 | 1 | 0 | 276 | 15 | 305 | 0 | 0 | 320 | 693 |
| Hourly Total | 252 | 98 | 0 | 0 | 350 | 985 | 77 | 1 | 0 | 1063 | 69 | 1255 | 0 | 0 | 1324 | 2737 |
| 5:00 PM | 66 | 28 | 0 | 0 | 94 | 221 | 20 | 0 | 0 | 241 | 26 | 331 | 0 | 0 | 357 | 692 |
| 5:15 PM | 86 | 21 | 0 | 0 | 107 | 248 | 19 | 0 | 0 | 267 | 16 | 298 | 0 | 0 | 314 | 688 |
| 5:30 PM | 71 | 17 | 0 | 0 | 88 | 198 | 16 | 0 | 0 | 214 | 23 | 335 | 0 | 0 | 358 | 660 |
| 5:45 PM | 51 | 15 | 0 | 0 | 66 | 178 | 13 | 0 | 0 | 191 | 9 | 402 | 0 | 0 | 411 | 668 |
| Hourly Total | 274 | 81 | 0 | 0 | 355 | 845 | 68 | 0 | 0 | 913 | 74 | 1366 | 0 | 0 | 1440 | 2708 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Grand Total | 680 | 452 | 0 | 0 | 1132 | 5169 | 407 | 1 | 0 | 5577 | 298 | 3982 | 0 | 0 | 4280 | 10989 |
| Approach % | 60.1 | 39.9 | 0.0 | - | - | 92.7 | 7.3 | 0.0 | - | - | 7.0 | 93.0 | 0.0 | - | - | - |
| Total % | 6.2 | 4.1 | 0.0 | - | 10.3 | 47.0 | 3.7 | 0.0 | - | 50.8 | 2.7 | 36.2 | 0.0 | - | 38.9 | - |
| Lights | 635 | 388 | 0 | - | 1023 | 4998 | 374 | 1 | - | 5373 | 231 | 3849 | 0 | - | 4080 | 10476 |
| % Lights | 93.4 | 85.8 | - | - | 90.4 | 96.7 | 91.9 | 100.0 | - | 96.3 | 77.5 | 96.7 | - | - | 95.3 | 95.3 |
| Buses | 6 | 9 | 0 | - | 15 | 36 | 8 | 0 | - | 44 | 11 | 17 | 0 | - | 28 | 87 |
| % Buses | 0.9 | 2.0 | - | - | 1.3 | 0.7 | 2.0 | 0.0 | - | 0.8 | 3.7 | 0.4 | - | - | 0.7 | 0.8 |
| Trucks | 39 | 55 | 0 | - | 94 | 135 | 25 | 0 | - | 160 | 56 | 116 | 0 | - | 172 | 426 |
| % Trucks | 5.7 | 12.2 | - | - | 8.3 | 2.6 | 6.1 | 0.0 | - | 2.9 | 18.8 | 2.9 | - | - | 4.0 | 3.9 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Albany, NY
US 9W/NY 32
Wednesday, February 6. 2019
Location: 42.620891, -
73.778155

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US 9W [SB]

| Out | In | Total |
|---|---|---|
| 5386 | 4080 | 9466 |
| 45 | 28 | 73 |
| 190 | 172 | 362 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **5621** | **4280** | **9901** |

| | | | |
|---|---|---|---|
| 3849 | 231 | 0 | 0 |
| 17 | 11 | 0 | 0 |
| 116 | 56 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **3982** | **298** | **0** | **0** |
| T | L | U | P |

NY 32 [WB]

| Out | In | Total |
|---|---|---|
| 605 | 1023 | 1628 |
| 19 | 15 | 34 |
| 81 | 94 | 175 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **705** | **1132** | **1837** |

| R | L | U | P |
|---|---|---|---|
| 388 | 635 | 0 | 0 |
| 9 | 6 | 0 | 0 |
| 55 | 39 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **452** | **680** | **0** | **0** |

02/06/2019 7:00 AM
Ending At
02/06/2019 6:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | T | R | P |
|---|---|---|---|
| 1 | 4998 | 374 | 0 |
| 0 | 36 | 8 | 0 |
| 0 | 135 | 25 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **1** | **5169** | **407** | **0** |

| | | |
|---|---|---|
| 4485 | 5373 | 9858 |
| 23 | 44 | 67 |
| 155 | 160 | 315 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **4663** | **5577** | **10240** |
| Out | In | Total |

US 9W [NB]

Turning Movement Data Plot

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## Turning Movement Peak Hour Data (7:30 AM)

| Start Time | NY 32 Westbound | | | | | US 9W Northbound | | | | | US 9W Southbound | | | | | Int. Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | |
| 7:30 AM | 22 | 30 | 0 | 0 | 52 | 485 | 35 | 0 | 0 | 520 | 19 | 159 | 0 | 0 | 178 | 750 |
| 7:45 AM | 23 | 41 | 0 | 0 | 64 | 492 | 41 | 0 | 0 | 533 | 18 | 183 | 0 | 0 | 201 | 798 |
| 8:00 AM | 17 | 32 | 0 | 0 | 49 | 394 | 50 | 0 | 0 | 444 | 25 | 182 | 0 | 0 | 207 | 700 |
| 8:15 AM | 22 | 35 | 0 | 0 | 57 | 459 | 22 | 0 | 0 | 481 | 29 | 214 | 0 | 0 | 243 | 781 |
| Total | 84 | 138 | 0 | 0 | 222 | 1830 | 148 | 0 | 0 | 1978 | 91 | 738 | 0 | 0 | 829 | 3029 |
| Approach % | 37.8 | 62.2 | 0.0 | - | - | 92.5 | 7.5 | 0.0 | - | - | 11.0 | 89.0 | 0.0 | - | - | - |
| Total % | 2.8 | 4.6 | 0.0 | - | 7.3 | 60.4 | 4.9 | 0.0 | - | 65.3 | 3.0 | 24.4 | 0.0 | - | 27.4 | - |
| PHF | 0.913 | 0.841 | 0.000 | - | 0.867 | 0.930 | 0.740 | 0.000 | - | 0.928 | 0.784 | 0.862 | 0.000 | - | 0.853 | 0.949 |
| Lights | 69 | 121 | 0 | - | 190 | 1778 | 135 | 0 | - | 1913 | 63 | 696 | 0 | - | 759 | 2862 |
| % Lights | 82.1 | 87.7 | - | - | 85.6 | 97.2 | 91.2 | - | - | 96.7 | 69.2 | 94.3 | - | - | 91.6 | 94.5 |
| Buses | 1 | 3 | 0 | - | 4 | 14 | 1 | 0 | - | 15 | 4 | 9 | 0 | - | 13 | 32 |
| % Buses | 1.2 | 2.2 | - | - | 1.8 | 0.8 | 0.7 | - | - | 0.8 | 4.4 | 1.2 | - | - | 1.6 | 1.1 |
| Trucks | 14 | 14 | 0 | - | 28 | 38 | 12 | 0 | - | 50 | 24 | 33 | 0 | - | 57 | 135 |
| % Trucks | 16.7 | 10.1 | - | - | 12.6 | 2.1 | 8.1 | - | - | 2.5 | 26.4 | 4.5 | - | - | 6.9 | 4.5 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Albany, NY
US 9W/NY 32
Wednesday, February 6. 2019
Location: 42.620891, -73.778155

Count Name: US 9W / NY 32
Site Code: Glenmont, New York
Start Date: 02/06/2019


US 9W [SB]

| Out | In | Total |
|---|---|---|
| 1899 | 759 | 2658 |
| 17 | 13 | 30 |
| 52 | 57 | 109 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1968** | **829** | **2797** |

| | | | |
|---|---|---|---|
| 696 | 63 | 0 | 0 |
| 9 | 4 | 0 | 0 |
| 33 | 24 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **738** | **91** | **0** | **0** |
| T | L | U | P |

## Peak Hour Data

02/06/2019 7:30 AM
Ending At
02/06/2019 8:30 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

NY 32 [WB]

| Out | In | Total |
|---|---|---|
| 198 | 190 | 388 |
| 5 | 4 | 9 |
| 36 | 28 | 64 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **239** | **222** | **461** |

| R | L | U | P |
|---|---|---|---|
| 121 | 69 | 0 | 0 |
| 3 | 1 | 0 | 0 |
| 14 | 14 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **138** | **84** | **0** | **0** |

| U | T | R | P |
|---|---|---|---|
| 0 | 1778 | 135 | 0 |
| 0 | 14 | 1 | 0 |
| 0 | 38 | 12 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **1830** | **148** | **0** |

| | | |
|---|---|---|
| 765 | 1913 | 2678 |
| 10 | 15 | 25 |
| 47 | 50 | 97 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **822** | **1978** | **2800** |
| Out | In | Total |

US 9W [NB]

Turning Movement Peak Hour Data Plot (7:30 AM)

Albany, NY
US 9W/NY 32
Wednesday, February 6. 2019
Location: 42.620891, -73.778155

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610-466-1469
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Count Name: US 9W / NY 32
Site Code: Glenmont, New York
Start Date: 02/06/2019


# Turning Movement Peak Hour Data (4:15 PM)

| Start Time | NY 32 Westbound | | | | | US 9W Northbound | | | | | US 9W Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 4:15 PM | 56 | 25 | 0 | 0 | 81 | 230 | 18 | 0 | 0 | 248 | 19 | 346 | 0 | 0 | 365 | 694 |
| 4:30 PM | 63 | 17 | 0 | 0 | 80 | 272 | 19 | 0 | 0 | 291 | 19 | 312 | 0 | 0 | 331 | 702 |
| 4:45 PM | 77 | 20 | 0 | 0 | 97 | 249 | 26 | 1 | 0 | 276 | 15 | 305 | 0 | 0 | 320 | 693 |
| 5:00 PM | 66 | 28 | 0 | 0 | 94 | 221 | 20 | 0 | 0 | 241 | 26 | 331 | 0 | 0 | 357 | 692 |
| Total | 262 | 90 | 0 | 0 | 352 | 972 | 83 | 1 | 0 | 1056 | 79 | 1294 | 0 | 0 | 1373 | 2781 |
| Approach % | 74.4 | 25.6 | 0.0 | - | - | 92.0 | 7.9 | 0.1 | - | - | 5.8 | 94.2 | 0.0 | - | - | - |
| Total % | 9.4 | 3.2 | 0.0 | - | 12.7 | 35.0 | 3.0 | 0.0 | - | 38.0 | 2.8 | 46.5 | 0.0 | - | 49.4 | - |
| PHF | 0.851 | 0.804 | 0.000 | - | 0.907 | 0.893 | 0.798 | 0.250 | - | 0.907 | 0.760 | 0.935 | 0.000 | - | 0.940 | 0.990 |
| Lights | 250 | 80 | 0 | - | 330 | 931 | 77 | 1 | - | 1009 | 68 | 1269 | 0 | - | 1337 | 2676 |
| % Lights | 95.4 | 88.9 | - | - | 93.8 | 95.8 | 92.8 | 100.0 | - | 95.5 | 86.1 | 98.1 | - | - | 97.4 | 96.2 |
| Buses | 0 | 1 | 0 | - | 1 | 4 | 1 | 0 | - | 5 | 0 | 2 | 0 | - | 2 | 8 |
| % Buses | 0.0 | 1.1 | - | - | 0.3 | 0.4 | 1.2 | 0.0 | - | 0.5 | 0.0 | 0.2 | - | - | 0.1 | 0.3 |
| Trucks | 12 | 9 | 0 | - | 21 | 37 | 5 | 0 | - | 42 | 11 | 23 | 0 | - | 34 | 97 |
| % Trucks | 4.6 | 10.0 | - | - | 6.0 | 3.8 | 6.0 | 0.0 | - | 4.0 | 13.9 | 1.8 | - | - | 2.5 | 3.5 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Albany, NY
US 9W/NY 32
Wednesday, February 6. 2019
Location: 42.620891, -73.778155

Count Name: US 9W / NY 32
Site Code: Glenmont, New York
Start Date: 02/06/2019
Page No: 6

US 9W [SB]

| Out | In | Total |
|---|---|---|
| 1011 | 1337 | 2348 |
| 5 | 2 | 7 |
| 46 | 34 | 80 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1062** | **1373** | **2435** |

| T | L | U | P |
|---|---|---|---|
| 1269 | 68 | 0 | 0 |
| 2 | 0 | 0 | 0 |
| 23 | 11 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **1294** | **79** | **0** | **0** |

## Peak Hour Data

02/06/2019 4:15 PM
Ending At
02/06/2019 5:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

NY 32 [WB]

| R | L | U | P |
|---|---|---|---|
| 80 | 250 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 9 | 12 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **90** | **262** | **0** | **0** |

| Out | In | Total |
|---|---|---|
| 145 | 330 | 475 |
| 1 | 1 | 2 |
| 16 | 21 | 37 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **162** | **352** | **514** |

| U | T | R | P |
|---|---|---|---|
| 1 | 931 | 77 | 0 |
| 0 | 4 | 1 | 0 |
| 0 | 37 | 5 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **1** | **972** | **83** | **0** |

| Out | In | Total |
|---|---|---|
| 1520 | 1009 | 2529 |
| 2 | 5 | 7 |
| 35 | 42 | 77 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1557** | **1056** | **2613** |

US 9W [NB]

Turning Movement Peak Hour Data Plot (4:15 PM)

Port of Albany, NY
Broadway/Church St
Tuesday, February 26, 2019
Location: 42.636505, -73.755367

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: Broadway/Church St
Site Code: Albany, New York
Start Date: 02/26/2019
Page No: 1

# Turning Movement Data

| Start Time | Broadway Westbound | | | | | Church St Northbound | | | | | Church St Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:30 AM | 28 | 3 | 0 | 0 | 31 | 9 | 9 | 0 | 0 | 18 | 6 | 14 | 0 | 0 | 20 | 69 |
| 7:45 AM | 41 | 0 | 0 | 0 | 41 | 14 | 8 | 0 | 1 | 22 | 18 | 16 | 1 | 0 | 35 | 98 |
| Hourly Total | 69 | 3 | 0 | 0 | 72 | 23 | 17 | 0 | 1 | 40 | 24 | 30 | 1 | 0 | 55 | 167 |
| 8:00 AM | 12 | 2 | 0 | 1 | 14 | 10 | 10 | 0 | 0 | 20 | 8 | 4 | 0 | 0 | 12 | 46 |
| 8:15 AM | 19 | 1 | 0 | 0 | 20 | 5 | 9 | 0 | 1 | 14 | 7 | 13 | 0 | 0 | 20 | 54 |
| 8:30 AM | 14 | 0 | 0 | 0 | 14 | 5 | 18 | 0 | 0 | 23 | 9 | 16 | 0 | 0 | 25 | 62 |
| 8:45 AM | 19 | 3 | 0 | 1 | 22 | 14 | 14 | 0 | 0 | 28 | 4 | 14 | 0 | 0 | 18 | 68 |
| Hourly Total | 64 | 6 | 0 | 2 | 70 | 34 | 51 | 0 | 1 | 85 | 28 | 47 | 0 | 0 | 75 | 230 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 11 | 9 | 0 | 0 | 20 | 18 | 27 | 0 | 0 | 45 | 4 | 15 | 0 | 0 | 19 | 84 |
| 4:15 PM | 12 | 3 | 0 | 0 | 15 | 15 | 28 | 0 | 0 | 43 | 0 | 10 | 0 | 0 | 10 | 68 |
| 4:30 PM | 19 | 4 | 0 | 0 | 23 | 21 | 6 | 0 | 0 | 27 | 5 | 17 | 0 | 0 | 22 | 72 |
| 4:45 PM | 12 | 13 | 0 | 0 | 25 | 24 | 25 | 0 | 0 | 49 | 5 | 13 | 0 | 0 | 18 | 92 |
| Hourly Total | 54 | 29 | 0 | 0 | 83 | 78 | 86 | 0 | 0 | 164 | 14 | 55 | 0 | 0 | 69 | 316 |
| 5:00 PM | 21 | 2 | 0 | 0 | 23 | 10 | 40 | 0 | 0 | 50 | 3 | 7 | 0 | 0 | 10 | 83 |
| 5:15 PM | 19 | 6 | 0 | 2 | 25 | 14 | 17 | 0 | 0 | 31 | 4 | 6 | 0 | 0 | 10 | 66 |
| 5:30 PM | 11 | 5 | 0 | 0 | 16 | 10 | 14 | 0 | 0 | 24 | 3 | 9 | 0 | 0 | 12 | 52 |
| 5:45 PM | 2 | 1 | 0 | 0 | 3 | 5 | 5 | 0 | 0 | 10 | 1 | 8 | 0 | 0 | 9 | 22 |
| Hourly Total | 53 | 14 | 0 | 2 | 67 | 39 | 76 | 0 | 0 | 115 | 11 | 30 | 0 | 0 | 41 | 223 |
| Grand Total | 240 | 52 | 0 | 4 | 292 | 174 | 230 | 0 | 2 | 404 | 77 | 162 | 1 | 0 | 240 | 936 |
| Approach % | 82.2 | 17.8 | 0.0 | - | - | 43.1 | 56.9 | 0.0 | - | - | 32.1 | 67.5 | 0.4 | - | - | - |
| Total % | 25.6 | 5.6 | 0.0 | - | 31.2 | 18.6 | 24.6 | 0.0 | - | 43.2 | 8.2 | 17.3 | 0.1 | - | 25.6 | - |
| Lights | 170 | 48 | 0 | - | 218 | 112 | 177 | 0 | - | 289 | 75 | 108 | 1 | - | 184 | 691 |
| % Lights | 70.8 | 92.3 | - | - | 74.7 | 64.4 | 77.0 | - | - | 71.5 | 97.4 | 66.7 | 100.0 | - | 76.7 | 73.8 |
| Buses | 9 | 0 | 0 | - | 9 | 19 | 3 | 0 | - | 22 | 2 | 15 | 0 | - | 17 | 48 |
| % Buses | 3.8 | 0.0 | - | - | 3.1 | 10.9 | 1.3 | - | - | 5.4 | 2.6 | 9.3 | 0.0 | - | 7.1 | 5.1 |
| Trucks | 61 | 4 | 0 | - | 65 | 43 | 50 | 0 | - | 93 | 0 | 39 | 0 | - | 39 | 197 |
| % Trucks | 25.4 | 7.7 | - | - | 22.3 | 24.7 | 21.7 | - | - | 23.0 | 0.0 | 24.1 | 0.0 | - | 16.3 | 21.0 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 4 | - | - | - | - | 2 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

Port of Albany, NY
Broadway/Church St
Tuesday, February 26, 2019
Location: 42.636505, -73.755367

Count Name: Broadway/Church St
Site Code: Albany, New York
Start Date: 02/26/2019


Church St [SB]

| Out | In | Total |
|---|---|---|
| 161 | 184 | 345 |
| 19 | 17 | 36 |
| 47 | 39 | 86 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **227** | **240** | **467** |

| | | | |
|---|---|---|---|
| 108 | 75 | 1 | 0 |
| 15 | 2 | 0 | 0 |
| 39 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **162** | **77** | **1** | **0** |
| T | L | U | P |

| R | L | U | P |
|---|---|---|---|
| 48 | 170 | 0 | 0 |
| 0 | 9 | 0 | 0 |
| 4 | 61 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 4 |
| **52** | **240** | **0** | **4** |

Broadway [WB]

| Out | In | Total |
|---|---|---|
| 252 | 218 | 470 |
| 5 | 9 | 14 |
| 50 | 65 | 115 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **307** | **292** | **599** |

02/26/2019 7:30 AM
Ending At
02/26/2019 6:00 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | T | R | P |
|---|---|---|---|
| 0 | 112 | 177 | 0 |
| 0 | 19 | 3 | 0 |
| 0 | 43 | 50 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 2 |
| **0** | **174** | **230** | **2** |

| | | |
|---|---|---|
| 278 | 289 | 567 |
| 24 | 22 | 46 |
| 100 | 93 | 193 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **402** | **404** | **806** |
| Out | In | Total |

Church St [NB]

Turning Movement Data Plot

www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Port of Albany, NY
Broadway/Church St
Tuesday, February 26, 2019
Location: 42.636505, -73.755367

Count Name: Broadway/Church St
Site Code: Albany, New York
Start Date: 02/26/2019


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Broadway Westbound | | | | | Church St Northbound | | | | | Church St Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:30 AM | 28 | 3 | 0 | 0 | 31 | 9 | 9 | 0 | 0 | 18 | 6 | 14 | 0 | 0 | 20 | 69 |
| 7:45 AM | 41 | 0 | 0 | 0 | 41 | 14 | 8 | 0 | 1 | 22 | 18 | 16 | 1 | 0 | 35 | 98 |
| 8:00 AM | 12 | 2 | 0 | 1 | 14 | 10 | 10 | 0 | 0 | 20 | 8 | 4 | 0 | 0 | 12 | 46 |
| 8:15 AM | 19 | 1 | 0 | 0 | 20 | 5 | 9 | 0 | 1 | 14 | 7 | 13 | 0 | 0 | 20 | 54 |
| Total | 100 | 6 | 0 | 1 | 106 | 38 | 36 | 0 | 2 | 74 | 39 | 47 | 1 | 0 | 87 | 267 |
| Approach % | 94.3 | 5.7 | 0.0 | - | - | 51.4 | 48.6 | 0.0 | - | - | 44.8 | 54.0 | 1.1 | - | - | - |
| Total % | 37.5 | 2.2 | 0.0 | - | 39.7 | 14.2 | 13.5 | 0.0 | - | 27.7 | 14.6 | 17.6 | 0.4 | - | 32.6 | - |
| PHF | 0.610 | 0.500 | 0.000 | - | 0.646 | 0.679 | 0.900 | 0.000 | - | 0.841 | 0.542 | 0.734 | 0.250 | - | 0.621 | 0.681 |
| Lights | 75 | 5 | 0 | - | 80 | 22 | 21 | 0 | - | 43 | 39 | 35 | 1 | - | 75 | 198 |
| % Lights | 75.0 | 83.3 | - | - | 75.5 | 57.9 | 58.3 | - | - | 58.1 | 100.0 | 74.5 | 100.0 | - | 86.2 | 74.2 |
| Buses | 2 | 0 | 0 | - | 2 | 0 | 1 | 0 | - | 1 | 0 | 1 | 0 | - | 1 | 4 |
| % Buses | 2.0 | 0.0 | - | - | 1.9 | 0.0 | 2.8 | - | - | 1.4 | 0.0 | 2.1 | 0.0 | - | 1.1 | 1.5 |
| Trucks | 23 | 1 | 0 | - | 24 | 16 | 14 | 0 | - | 30 | 0 | 11 | 0 | - | 11 | 65 |
| % Trucks | 23.0 | 16.7 | - | - | 22.6 | 42.1 | 38.9 | - | - | 40.5 | 0.0 | 23.4 | 0.0 | - | 12.6 | 24.3 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | 0.0 | - | - | - | - | 0.0 | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 1 | - | - | - | - | 2 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | 100.0 | - | - | - | - | 100.0 | - | - | - | - | - | - | - |

Church St [SB]

| Out | In | Total |
|---|---|---|
| 28 | 75 | 103 |
| 0 | 1 | 1 |
| 17 | 11 | 28 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **45** | **87** | **132** |

| | | | |
|---|---|---|---|
| 35 | 39 | 1 | 0 |
| 1 | 0 | 0 | 0 |
| 11 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **47** | **39** | **1** | **0** |
| T | L | U | P |

## Peak Hour Data

02/26/2019 7:30 AM
Ending At
02/26/2019 8:30 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| R | L | U | P |
|---|---|---|---|
| 5 | 75 | 0 | 0 |
| 0 | 2 | 0 | 0 |
| 1 | 23 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 |
| **6** | **100** | **0** | **1** |

Broadway [WB]

| Out | In | Total |
|---|---|---|
| 60 | 80 | 140 |
| 1 | 2 | 3 |
| 14 | 24 | 38 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **75** | **106** | **181** |

| U | T | R | P |
|---|---|---|---|
| 0 | 22 | 21 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 16 | 14 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 2 |
| **0** | **38** | **36** | **2** |

| | | |
|---|---|---|
| 110 | 43 | 153 |
| 3 | 1 | 4 |
| 34 | 30 | 64 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **147** | **74** | **221** |
| Out | In | Total |

Church St [NB]

Turning Movement Peak Hour Data Plot (7:30 AM)

TRI-STATE TRAFFIC DATA

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Port of Albany, NY
Broadway/Church St
Tuesday, February 26, 2019
Location: 42.636505, -73.755367

Count Name: Broadway/Church St
Site Code: Albany, New York
Start Date: 02/26/2019


## Turning Movement Peak Hour Data (4:00 PM)

| | Broadway Westbound | | | | | Church St Northbound | | | | | Church St Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 4:00 PM | 11 | 9 | 0 | 0 | 20 | 18 | 27 | 0 | 0 | 45 | 4 | 15 | 0 | 0 | 19 | 84 |
| 4:15 PM | 12 | 3 | 0 | 0 | 15 | 15 | 28 | 0 | 0 | 43 | 0 | 10 | 0 | 0 | 10 | 68 |
| 4:30 PM | 19 | 4 | 0 | 0 | 23 | 21 | 6 | 0 | 0 | 27 | 5 | 17 | 0 | 0 | 22 | 72 |
| 4:45 PM | 12 | 13 | 0 | 0 | 25 | 24 | 25 | 0 | 0 | 49 | 5 | 13 | 0 | 0 | 18 | 92 |
| Total | 54 | 29 | 0 | 0 | 83 | 78 | 86 | 0 | 0 | 164 | 14 | 55 | 0 | 0 | 69 | 316 |
| Approach % | 65.1 | 34.9 | 0.0 | - | - | 47.6 | 52.4 | 0.0 | - | - | 20.3 | 79.7 | 0.0 | - | - | - |
| Total % | 17.1 | 9.2 | 0.0 | - | 26.3 | 24.7 | 27.2 | 0.0 | - | 51.9 | 4.4 | 17.4 | 0.0 | - | 21.8 | - |
| PHF | 0.711 | 0.558 | 0.000 | - | 0.830 | 0.813 | 0.768 | 0.000 | - | 0.837 | 0.700 | 0.809 | 0.000 | - | 0.784 | 0.859 |
| Lights | 40 | 26 | 0 | - | 66 | 59 | 75 | 0 | - | 134 | 14 | 35 | 0 | - | 49 | 249 |
| % Lights | 74.1 | 89.7 | - | - | 79.5 | 75.6 | 87.2 | - | - | 81.7 | 100.0 | 63.6 | - | - | 71.0 | 78.8 |
| Buses | 3 | 0 | 0 | - | 3 | 10 | 0 | 0 | - | 10 | 0 | 7 | 0 | - | 7 | 20 |
| % Buses | 5.6 | 0.0 | - | - | 3.6 | 12.8 | 0.0 | - | - | 6.1 | 0.0 | 12.7 | - | - | 10.1 | 6.3 |
| Trucks | 11 | 3 | 0 | - | 14 | 9 | 11 | 0 | - | 20 | 0 | 13 | 0 | - | 13 | 47 |
| % Trucks | 20.4 | 10.3 | - | - | 16.9 | 11.5 | 12.8 | - | - | 12.2 | 0.0 | 23.6 | - | - | 18.8 | 14.9 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

TRI-STATE TRAFFIC DATA

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184 Baker Rd

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610-466-1469
Serving Transportation Professionals Since 1995

Port of Albany, NY
Broadway/Church St
Tuesday, February 26, 2019
Location: 42.636505, -73.755367

Count Name: Broadway/Church St
Site Code: Albany, New York
Start Date: 02/26/2019
Page No: 6

| Church St [SB] | | |
|---|---|---|
| Out | In | Total |
| 85 | 49 | 134 |
| 10 | 7 | 17 |
| 12 | 13 | 25 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **107** | **69** | **176** |

| | | | |
|---|---|---|---|
| 35 | 14 | 0 | 0 |
| 7 | 0 | 0 | 0 |
| 13 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **55** | **14** | **0** | **0** |
| T | L | U | P |

## Peak Hour Data

02/26/2019 4:00 PM
Ending At
02/26/2019 5:00 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| R | L | U | P |
|---|---|---|---|
| 26 | 40 | 0 | 0 |
| 0 | 3 | 0 | 0 |
| 3 | 11 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **29** | **54** | **0** | **0** |

| Broadway [WB] | | |
|---|---|---|
| Out | In | Total |
| 89 | 66 | 155 |
| 0 | 3 | 3 |
| 11 | 14 | 25 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **100** | **83** | **183** |

| U | T | R | P |
|---|---|---|---|
| 0 | 59 | 75 | 0 |
| 0 | 10 | 0 | 0 |
| 0 | 9 | 11 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **78** | **86** | **0** |

| | | |
|---|---|---|
| 75 | 134 | 209 |
| 10 | 10 | 20 |
| 24 | 20 | 44 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **109** | **164** | **273** |
| Out | In | Total |
| Church St [NB] | | |

Turning Movement Peak Hour Data Plot (4:00 PM)

www.TSTData.com
184 Baker Rd
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995


Port of Albany, NY
NY 32/Port Street
Tuesday, February 26, 2019
Location: 42.62119, -73.767051

Count Name: NY 32/ Port Street
Site Code: Albany, New York
Start Date: 02/26/2019


# Turning Movement Data

| Start Time | Port St Westbound | | | | | NY 32 Northbound | | | | | NY 32 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 6 | 3 | 0 | 0 | 9 | 98 | 10 | 0 | 0 | 108 | 7 | 55 | 0 | 0 | 62 | 179 |
| 7:15 AM | 4 | 10 | 0 | 0 | 14 | 133 | 12 | 0 | 0 | 145 | 6 | 44 | 0 | 0 | 50 | 209 |
| 7:30 AM | 5 | 2 | 0 | 0 | 7 | 184 | 5 | 0 | 0 | 189 | 9 | 62 | 0 | 0 | 71 | 267 |
| 7:45 AM | 2 | 7 | 0 | 0 | 9 | 172 | 13 | 0 | 0 | 185 | 6 | 47 | 0 | 0 | 53 | 247 |
| Hourly Total | 17 | 22 | 0 | 0 | 39 | 587 | 40 | 0 | 0 | 627 | 28 | 208 | 0 | 0 | 236 | 902 |
| 8:00 AM | 4 | 8 | 0 | 0 | 12 | 132 | 4 | 0 | 0 | 136 | 12 | 62 | 0 | 0 | 74 | 222 |
| 8:15 AM | 6 | 11 | 0 | 0 | 17 | 129 | 14 | 0 | 0 | 143 | 4 | 39 | 0 | 0 | 43 | 203 |
| 8:30 AM | 6 | 13 | 0 | 0 | 19 | 122 | 9 | 0 | 0 | 131 | 12 | 49 | 0 | 0 | 61 | 211 |
| 8:45 AM | 5 | 7 | 0 | 0 | 12 | 104 | 13 | 0 | 0 | 117 | 9 | 62 | 0 | 0 | 71 | 200 |
| Hourly Total | 21 | 39 | 0 | 0 | 60 | 487 | 40 | 0 | 0 | 527 | 37 | 212 | 0 | 0 | 249 | 836 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 23 | 18 | 0 | 0 | 41 | 50 | 11 | 0 | 0 | 61 | 1 | 170 | 0 | 0 | 171 | 273 |
| 4:15 PM | 17 | 8 | 0 | 0 | 25 | 41 | 3 | 0 | 0 | 44 | 1 | 181 | 0 | 0 | 182 | 251 |
| 4:30 PM | 13 | 4 | 0 | 0 | 17 | 54 | 1 | 0 | 0 | 55 | 1 | 192 | 0 | 0 | 193 | 265 |
| 4:45 PM | 19 | 3 | 0 | 0 | 22 | 80 | 3 | 0 | 0 | 83 | 2 | 199 | 0 | 0 | 201 | 306 |
| Hourly Total | 72 | 33 | 0 | 0 | 105 | 225 | 18 | 0 | 0 | 243 | 5 | 742 | 0 | 0 | 747 | 1095 |
| 5:00 PM | 15 | 2 | 0 | 0 | 17 | 53 | 6 | 0 | 0 | 59 | 2 | 220 | 0 | 0 | 222 | 298 |
| 5:15 PM | 17 | 2 | 0 | 0 | 19 | 41 | 2 | 0 | 0 | 43 | 0 | 223 | 0 | 0 | 223 | 285 |
| 5:30 PM | 9 | 6 | 0 | 0 | 15 | 45 | 2 | 0 | 0 | 47 | 2 | 136 | 0 | 0 | 138 | 200 |
| 5:45 PM | 4 | 2 | 0 | 0 | 6 | 31 | 0 | 0 | 0 | 31 | 2 | 129 | 0 | 0 | 131 | 168 |
| Hourly Total | 45 | 12 | 0 | 0 | 57 | 170 | 10 | 0 | 0 | 180 | 6 | 708 | 0 | 0 | 714 | 951 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 155 | 106 | 0 | 0 | 261 | 1469 | 108 | 0 | 0 | 1577 | 76 | 1870 | 0 | 0 | 1946 | 3784 |
| Approach % | 59.4 | 40.6 | 0.0 | - | - | 93.2 | 6.8 | 0.0 | - | - | 3.9 | 96.1 | 0.0 | - | - | - |
| Total % | 4.1 | 2.8 | 0.0 | - | 6.9 | 38.8 | 2.9 | 0.0 | - | 41.7 | 2.0 | 49.4 | 0.0 | - | 51.4 | - |
| Lights | 123 | 55 | 0 | - | 178 | 1355 | 74 | 0 | - | 1429 | 41 | 1682 | 0 | - | 1723 | 3330 |
| % Lights | 79.4 | 51.9 | - | - | 68.2 | 92.2 | 68.5 | - | - | 90.6 | 53.9 | 89.9 | - | - | 88.5 | 88.0 |
| Buses | 1 | 1 | 0 | - | 2 | 36 | 2 | 0 | - | 38 | 0 | 96 | 0 | - | 96 | 136 |
| % Buses | 0.6 | 0.9 | - | - | 0.8 | 2.5 | 1.9 | - | - | 2.4 | 0.0 | 5.1 | - | - | 4.9 | 3.6 |
| Trucks | 31 | 50 | 0 | - | 81 | 78 | 32 | 0 | - | 110 | 35 | 92 | 0 | - | 127 | 318 |
| % Trucks | 20.0 | 47.2 | - | - | 31.0 | 5.3 | 29.6 | - | - | 7.0 | 46.1 | 4.9 | - | - | 6.5 | 8.4 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

TRI-STATE TRAFFIC DATA
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Port of Albany, NY
NY 32/Port Street
Tuesday, February 26, 2019
Location: 42.62119, -73.767051

Count Name: NY 32/ Port Street
Site Code: Albany, New York
Start Date: 02/26/2019


NY 32 [SB]

| Out | In | Total |
|---|---|---|
| 1410 | 1723 | 3133 |
| 37 | 96 | 133 |
| 128 | 127 | 255 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1575** | **1946** | **3521** |

| | | | |
|---|---|---|---|
| 1682 | 41 | 0 | 0 |
| 96 | 0 | 0 | 0 |
| 92 | 35 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **1870** | **76** | **0** | **0** |
| T | L | U | P |

Port St [WB]

| | | | | | |
|---|---|---|---|---|---|
| R | 55 | 1 | 50 | 0 | 0 | **106** |
| L | 123 | 1 | 31 | 0 | 0 | **155** |
| U | 0 | 0 | 0 | 0 | 0 | **0** |
| P | 0 | 0 | 0 | 0 | 0 | **0** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Out | 115 | 2 | 67 | 0 | 0 | **184** |
| In | 178 | 2 | 81 | 0 | 0 | **261** |
| Total | 293 | 4 | 148 | 0 | 0 | **445** |

02/26/2019 7:00 AM
Ending At
02/26/2019 6:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | T | R | P |
|---|---|---|---|
| 0 | 1355 | 74 | 0 |
| 0 | 36 | 2 | 0 |
| 0 | 78 | 32 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **1469** | **108** | **0** |

| | | |
|---|---|---|
| 1805 | 1429 | 3234 |
| 97 | 38 | 135 |
| 123 | 110 | 233 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **2025** | **1577** | **3602** |
| Out | In | Total |

NY 32 [NB]

Turning Movement Data Plot

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Port of Albany, NY
NY 32/Port Street
Tuesday, February 26, 2019
Location: 42.62119, -73.767051

Count Name: NY 32/ Port Street
Site Code: Albany, New York
Start Date: 02/26/2019


## Turning Movement Peak Hour Data (7:15 AM)

| Start Time | Port St Westbound | | | | | NY 32 Northbound | | | | | NY 32 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 7:15 AM | 4 | 10 | 0 | 0 | 14 | 133 | 12 | 0 | 0 | 145 | 6 | 44 | 0 | 0 | 50 | 209 |
| 7:30 AM | 5 | 2 | 0 | 0 | 7 | 184 | 5 | 0 | 0 | 189 | 9 | 62 | 0 | 0 | 71 | 267 |
| 7:45 AM | 2 | 7 | 0 | 0 | 9 | 172 | 13 | 0 | 0 | 185 | 6 | 47 | 0 | 0 | 53 | 247 |
| 8:00 AM | 4 | 8 | 0 | 0 | 12 | 132 | 4 | 0 | 0 | 136 | 12 | 62 | 0 | 0 | 74 | 222 |
| Total | 15 | 27 | 0 | 0 | 42 | 621 | 34 | 0 | 0 | 655 | 33 | 215 | 0 | 0 | 248 | 945 |
| Approach % | 35.7 | 64.3 | 0.0 | - | - | 94.8 | 5.2 | 0.0 | - | - | 13.3 | 86.7 | 0.0 | - | - | - |
| Total % | 1.6 | 2.9 | 0.0 | - | 4.4 | 65.7 | 3.6 | 0.0 | - | 69.3 | 3.5 | 22.8 | 0.0 | - | 26.2 | - |
| PHF | 0.750 | 0.675 | 0.000 | - | 0.750 | 0.844 | 0.654 | 0.000 | - | 0.866 | 0.688 | 0.867 | 0.000 | - | 0.838 | 0.885 |
| Lights | 6 | 9 | 0 | - | 15 | 584 | 28 | 0 | - | 612 | 16 | 170 | 0 | - | 186 | 813 |
| % Lights | 40.0 | 33.3 | - | - | 35.7 | 94.0 | 82.4 | - | - | 93.4 | 48.5 | 79.1 | - | - | 75.0 | 86.0 |
| Buses | 0 | 0 | 0 | - | 0 | 10 | 0 | 0 | - | 10 | 0 | 14 | 0 | - | 14 | 24 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 1.6 | 0.0 | - | - | 1.5 | 0.0 | 6.5 | - | - | 5.6 | 2.5 |
| Trucks | 9 | 18 | 0 | - | 27 | 27 | 6 | 0 | - | 33 | 17 | 31 | 0 | - | 48 | 108 |
| % Trucks | 60.0 | 66.7 | - | - | 64.3 | 4.3 | 17.6 | - | - | 5.0 | 51.5 | 14.4 | - | - | 19.4 | 11.4 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Port of Albany, NY
NY 32/Port Street
Tuesday, February 26, 2019
Location: 42.62119, -73.767051

Count Name: NY 32/ Port Street
Site Code: Albany, New York
Start Date: 02/26/2019
Page No: 4

**Peak Hour Data**

02/26/2019 7:15 AM
Ending At
02/26/2019 8:15 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

NY 32 [SB]

| Out | In | Total |
|---|---|---|
| 593 | 186 | 779 |
| 10 | 14 | 24 |
| 45 | 48 | 93 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **648** | **248** | **896** |

| | | | |
|---|---|---|---|
| 170 | 16 | 0 | 0 |
| 14 | 0 | 0 | 0 |
| 31 | 17 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **215** | **33** | **0** | **0** |
| T | L | U | P |

Port St [WB]

| Out | In | Total |
|---|---|---|
| 44 | 15 | 59 |
| 0 | 0 | 0 |
| 23 | 27 | 50 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **67** | **42** | **109** |

| R | L | U | P |
|---|---|---|---|
| 9 | 6 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 18 | 9 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **27** | **15** | **0** | **0** |

| U | T | R | P |
|---|---|---|---|
| 0 | 584 | 28 | 0 |
| 0 | 10 | 0 | 0 |
| 0 | 27 | 6 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **621** | **34** | **0** |

| | | |
|---|---|---|
| 176 | 612 | 788 |
| 14 | 10 | 24 |
| 40 | 33 | 73 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **230** | **655** | **885** |
| Out | In | Total |

NY 32 [NB]

Turning Movement Peak Hour Data Plot (7:15 AM)

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Port of Albany, NY
NY 32/Port Street
Tuesday, February 26, 2019
Location: 42.62119, -73.767051

Count Name: NY 32/ Port Street
Site Code: Albany, New York
Start Date: 02/26/2019


## Turning Movement Peak Hour Data (4:30 PM)

| Start Time | Port St Westbound | | | | | NY 32 Northbound | | | | | NY 32 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Int. Total |
| 4:30 PM | 13 | 4 | 0 | 0 | 17 | 54 | 1 | 0 | 0 | 55 | 1 | 192 | 0 | 0 | 193 | 265 |
| 4:45 PM | 19 | 3 | 0 | 0 | 22 | 80 | 3 | 0 | 0 | 83 | 2 | 199 | 0 | 0 | 201 | 306 |
| 5:00 PM | 15 | 2 | 0 | 0 | 17 | 53 | 6 | 0 | 0 | 59 | 2 | 220 | 0 | 0 | 222 | 298 |
| 5:15 PM | 17 | 2 | 0 | 0 | 19 | 41 | 2 | 0 | 0 | 43 | 0 | 223 | 0 | 0 | 223 | 285 |
| Total | 64 | 11 | 0 | 0 | 75 | 228 | 12 | 0 | 0 | 240 | 5 | 834 | 0 | 0 | 839 | 1154 |
| Approach % | 85.3 | 14.7 | 0.0 | - | - | 95.0 | 5.0 | 0.0 | - | - | 0.6 | 99.4 | 0.0 | - | - | - |
| Total % | 5.5 | 1.0 | 0.0 | - | 6.5 | 19.8 | 1.0 | 0.0 | - | 20.8 | 0.4 | 72.3 | 0.0 | - | 72.7 | - |
| PHF | 0.842 | 0.688 | 0.000 | - | 0.852 | 0.713 | 0.500 | 0.000 | - | 0.723 | 0.625 | 0.935 | 0.000 | - | 0.941 | 0.943 |
| Lights | 59 | 10 | 0 | - | 69 | 210 | 6 | 0 | - | 216 | 3 | 792 | 0 | - | 795 | 1080 |
| % Lights | 92.2 | 90.9 | - | - | 92.0 | 92.1 | 50.0 | - | - | 90.0 | 60.0 | 95.0 | - | - | 94.8 | 93.6 |
| Buses | 0 | 0 | 0 | - | 0 | 7 | 0 | 0 | - | 7 | 0 | 30 | 0 | - | 30 | 37 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 3.1 | 0.0 | - | - | 2.9 | 0.0 | 3.6 | - | - | 3.6 | 3.2 |
| Trucks | 5 | 1 | 0 | - | 6 | 11 | 6 | 0 | - | 17 | 2 | 12 | 0 | - | 14 | 37 |
| % Trucks | 7.8 | 9.1 | - | - | 8.0 | 4.8 | 50.0 | - | - | 7.1 | 40.0 | 1.4 | - | - | 1.7 | 3.2 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Port of Albany, NY
NY 32/Port Street
Tuesday, February 26, 2019
Location: 42.62119, -73.767051

Count Name: NY 32/ Port Street
Site Code: Albany, New York
Start Date: 02/26/2019


## Peak Hour Data

02/26/2019 4:30 PM
Ending At
02/26/2019 5:30 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

### NY 32 [SB]

| Out | In | Total |
|---|---|---|
| 220 | 795 | 1015 |
| 7 | 30 | 37 |
| 12 | 14 | 26 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **239** | **839** | **1078** |

| T | L | U | P |
|---|---|---|---|
| 792 | 3 | 0 | 0 |
| 30 | 0 | 0 | 0 |
| 12 | 2 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **834** | **5** | **0** | **0** |

### Port St [WB]

| R | L | U | P |
|---|---|---|---|
| 10 | 59 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 1 | 5 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **11** | **64** | **0** | **0** |

| Out | In | Total |
|---|---|---|
| 9 | 69 | 78 |
| 0 | 0 | 0 |
| 8 | 6 | 14 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **17** | **75** | **92** |

### NY 32 [NB]

| U | T | R | P |
|---|---|---|---|
| 0 | 210 | 6 | 0 |
| 0 | 7 | 0 | 0 |
| 0 | 11 | 6 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **228** | **12** | **0** |

| Out | In | Total |
|---|---|---|
| 851 | 216 | 1067 |
| 30 | 7 | 37 |
| 17 | 17 | 34 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **898** | **240** | **1138** |

Turning Movement Peak Hour Data Plot (4:30 PM)

TRI-STATE TRAFFIC DATA

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Port of Albany, NY
NY 144/Clapper Road
Tuesday, February 26,2019
Location: 42.552503, -73.769465

Count Name: NY 144/Clapper Rd
Site Code: Bethlehem, New York
Start Date: 02/26/2019


# Turning Movement Data

| Start Time | Clapper Rd Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 1 | 1 | 0 | 0 | 2 | 0 | 88 | 0 | 0 | 88 | 29 | 1 | 0 | 0 | 30 | 120 |
| 7:15 AM | 1 | 4 | 0 | 0 | 5 | 1 | 98 | 0 | 0 | 99 | 31 | 0 | 0 | 0 | 31 | 135 |
| 7:30 AM | 1 | 3 | 0 | 0 | 4 | 0 | 148 | 0 | 0 | 148 | 38 | 0 | 0 | 0 | 38 | 190 |
| 7:45 AM | 3 | 4 | 0 | 0 | 7 | 1 | 94 | 0 | 0 | 95 | 36 | 0 | 0 | 0 | 36 | 138 |
| Hourly Total | 6 | 12 | 0 | 0 | 18 | 2 | 428 | 0 | 0 | 430 | 134 | 1 | 0 | 0 | 135 | 583 |
| 8:00 AM | 0 | 2 | 0 | 0 | 2 | 1 | 84 | 0 | 0 | 85 | 37 | 1 | 0 | 0 | 38 | 125 |
| 8:15 AM | 1 | 2 | 0 | 0 | 3 | 2 | 86 | 0 | 0 | 88 | 32 | 0 | 0 | 0 | 32 | 123 |
| 8:30 AM | 2 | 5 | 0 | 0 | 7 | 3 | 70 | 0 | 0 | 73 | 23 | 1 | 0 | 0 | 24 | 104 |
| 8:45 AM | 2 | 1 | 0 | 0 | 3 | 1 | 45 | 0 | 0 | 46 | 22 | 1 | 0 | 0 | 23 | 72 |
| Hourly Total | 5 | 10 | 0 | 0 | 15 | 7 | 285 | 0 | 0 | 292 | 114 | 3 | 0 | 0 | 117 | 424 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4:00 PM | 1 | 1 | 0 | 0 | 2 | 1 | 47 | 0 | 0 | 48 | 65 | 4 | 1 | 0 | 70 | 120 |
| 4:15 PM | 0 | 1 | 0 | 0 | 1 | 2 | 21 | 0 | 0 | 23 | 96 | 1 | 0 | 0 | 97 | 121 |
| 4:30 PM | 2 | 1 | 0 | 0 | 3 | 0 | 50 | 0 | 0 | 50 | 90 | 1 | 0 | 0 | 91 | 144 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 46 | 90 | 2 | 0 | 0 | 92 | 138 |
| Hourly Total | 3 | 3 | 0 | 0 | 6 | 3 | 164 | 0 | 0 | 167 | 341 | 8 | 1 | 0 | 350 | 523 |
| 5:00 PM | 1 | 0 | 0 | 0 | 1 | 4 | 32 | 0 | 0 | 36 | 81 | 2 | 0 | 0 | 83 | 120 |
| 5:15 PM | 1 | 1 | 0 | 0 | 2 | 1 | 31 | 0 | 0 | 32 | 104 | 0 | 0 | 0 | 104 | 138 |
| 5:30 PM | 0 | 1 | 0 | 0 | 1 | 1 | 29 | 0 | 0 | 30 | 68 | 3 | 0 | 0 | 71 | 102 |
| 5:45 PM | 2 | 3 | 0 | 0 | 5 | 2 | 24 | 0 | 0 | 26 | 54 | 0 | 0 | 0 | 54 | 85 |
| Hourly Total | 4 | 5 | 0 | 0 | 9 | 8 | 116 | 0 | 0 | 124 | 307 | 5 | 0 | 0 | 312 | 445 |
| Grand Total | 18 | 30 | 0 | 0 | 48 | 20 | 993 | 0 | 0 | 1013 | 896 | 17 | 1 | 0 | 914 | 1975 |
| Approach % | 37.5 | 62.5 | 0.0 | - | - | 2.0 | 98.0 | 0.0 | - | - | 98.0 | 1.9 | 0.1 | - | - | - |
| Total % | 0.9 | 1.5 | 0.0 | - | 2.4 | 1.0 | 50.3 | 0.0 | - | 51.3 | 45.4 | 0.9 | 0.1 | - | 46.3 | - |
| Lights | 17 | 28 | 0 | - | 45 | 18 | 911 | 0 | - | 929 | 807 | 17 | 1 | - | 825 | 1799 |
| % Lights | 94.4 | 93.3 | - | - | 93.8 | 90.0 | 91.7 | - | - | 91.7 | 90.1 | 100.0 | 100.0 | - | 90.3 | 91.1 |
| Buses | 1 | 1 | 0 | - | 2 | 2 | 7 | 0 | - | 9 | 8 | 0 | 0 | - | 8 | 19 |
| % Buses | 5.6 | 3.3 | - | - | 4.2 | 10.0 | 0.7 | - | - | 0.9 | 0.9 | 0.0 | 0.0 | - | 0.9 | 1.0 |
| Trucks | 0 | 1 | 0 | - | 1 | 0 | 75 | 0 | - | 75 | 81 | 0 | 0 | - | 81 | 157 |
| % Trucks | 0.0 | 3.3 | - | - | 2.1 | 0.0 | 7.6 | - | - | 7.4 | 9.0 | 0.0 | 0.0 | - | 8.9 | 7.9 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Port of Albany, NY
NY 144/Clapper Road
Tuesday, February 26,2019
Location: 42.552503, -73.769465

TRI-STATE TRAFFIC DATA
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610-466-1469
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Count Name: NY 144/Clapper Rd
Site Code: Bethlehem, New York
Start Date: 02/26/2019
Page No: 2

NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 929 | 825 | 1754 |
| 8 | 8 | 16 |
| 75 | 81 | 156 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1012** | **914** | **1926** |

| R | T | U | P |
|---|---|---|---|
| 17 | 807 | 1 | 0 |
| 0 | 8 | 0 | 0 |
| 0 | 81 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **17** | **896** | **1** | **0** |

Clapper Rd [EB]

| Out | In | Total |
|---|---|---|
| 35 | 45 | 80 |
| 2 | 2 | 4 |
| 0 | 1 | 1 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **37** | **48** | **85** |

| U | L | R | P |
|---|---|---|---|
| 0 | 17 | 28 | 0 |
| 0 | 1 | 1 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **18** | **30** | **0** |

02/26/2019 7:00 AM
Ending At
02/26/2019 6:00 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 18 | 911 | 0 |
| 0 | 2 | 7 | 0 |
| 0 | 0 | 75 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **20** | **993** | **0** |

NY 144 [NB]

| Out | In | Total |
|---|---|---|
| 835 | 929 | 1764 |
| 9 | 9 | 18 |
| 82 | 75 | 157 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **926** | **1013** | **1939** |

Turning Movement Data Plot

Port of Albany, NY
NY 144/Clapper Road
Tuesday, February 26,2019
Location: 42.552503, -73.769465

TRI-STATE TRAFFIC DATA
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Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: NY 144/Clapper Rd
Site Code: Bethlehem, New York
Start Date: 02/26/2019


## Turning Movement Peak Hour Data (7:15 AM)

| Start Time | Clapper Rd Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 7:15 AM | 1 | 4 | 0 | 0 | 5 | 1 | 98 | 0 | 0 | 99 | 31 | 0 | 0 | 0 | 31 | 135 |
| 7:30 AM | 1 | 3 | 0 | 0 | 4 | 0 | 148 | 0 | 0 | 148 | 38 | 0 | 0 | 0 | 38 | 190 |
| 7:45 AM | 3 | 4 | 0 | 0 | 7 | 1 | 94 | 0 | 0 | 95 | 36 | 0 | 0 | 0 | 36 | 138 |
| 8:00 AM | 0 | 2 | 0 | 0 | 2 | 1 | 84 | 0 | 0 | 85 | 37 | 1 | 0 | 0 | 38 | 125 |
| Total | 5 | 13 | 0 | 0 | 18 | 3 | 424 | 0 | 0 | 427 | 142 | 1 | 0 | 0 | 143 | 588 |
| Approach % | 27.8 | 72.2 | 0.0 | - | - | 0.7 | 99.3 | 0.0 | - | - | 99.3 | 0.7 | 0.0 | - | - | - |
| Total % | 0.9 | 2.2 | 0.0 | - | 3.1 | 0.5 | 72.1 | 0.0 | - | 72.6 | 24.1 | 0.2 | 0.0 | - | 24.3 | - |
| PHF | 0.417 | 0.813 | 0.000 | - | 0.643 | 0.750 | 0.716 | 0.000 | - | 0.721 | 0.934 | 0.250 | 0.000 | - | 0.941 | 0.774 |
| Lights | 5 | 12 | 0 | - | 17 | 3 | 390 | 0 | - | 393 | 113 | 1 | 0 | - | 114 | 524 |
| % Lights | 100.0 | 92.3 | - | - | 94.4 | 100.0 | 92.0 | - | - | 92.0 | 79.6 | 100.0 | - | - | 79.7 | 89.1 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 4 | 0 | - | 4 | 4 | 0 | 0 | - | 4 | 8 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.9 | - | - | 0.9 | 2.8 | 0.0 | - | - | 2.8 | 1.4 |
| Trucks | 0 | 1 | 0 | - | 1 | 0 | 30 | 0 | - | 30 | 25 | 0 | 0 | - | 25 | 56 |
| % Trucks | 0.0 | 7.7 | - | - | 5.6 | 0.0 | 7.1 | - | - | 7.0 | 17.6 | 0.0 | - | - | 17.5 | 9.5 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Port of Albany, NY
NY 144/Clapper Road
Tuesday, February 26,2019
Location: 42.552503, -73.769465

Count Name: NY 144/Clapper Rd
Site Code: Bethlehem, New York
Start Date: 02/26/2019


NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 395 | 114 | 509 |
| 4 | 4 | 8 |
| 30 | 25 | 55 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **429** | **143** | **572** |

| R | T | U | P |
|---|---|---|---|
| 1 | 113 | 0 | 0 |
| 0 | 4 | 0 | 0 |
| 0 | 25 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **1** | **142** | **0** | **0** |

Clapper Rd [EB]

| Out | In | Total |
|---|---|---|
| 4 | 17 | 21 |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **4** | **18** | **22** |

| U | L | R | P |
|---|---|---|---|
| 0 | 5 | 12 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **5** | **13** | **0** |

**Peak Hour Data**

02/26/2019 7:15 AM
Ending At
02/26/2019 8:15 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 3 | 390 | 0 |
| 0 | 0 | 4 | 0 |
| 0 | 0 | 30 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **3** | **424** | **0** |

| Out | In | Total |
|---|---|---|
| 125 | 393 | 518 |
| 4 | 4 | 8 |
| 26 | 30 | 56 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **155** | **427** | **582** |

NY 144 [NB]

Turning Movement Peak Hour Data Plot (7:15 AM)

Port of Albany, NY
NY 144/Clapper Road
Tuesday, February 26,2019
Location: 42.552503, -73.769465

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Coatesville, Pennsylvania, United States 19320
610-466-1469
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Count Name: NY 144/Clapper Rd
Site Code: Bethlehem, New York
Start Date: 02/26/2019
Page No: 5

# Turning Movement Peak Hour Data (4:30 PM)

| | Clapper Rd Eastbound | | | | | NY 144 Northbound | | | | | NY 144 Southbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | U-Turn | Peds | App. Total | Left | Thru | U-Turn | Peds | App. Total | Thru | Right | U-Turn | Peds | App. Total | Int. Total |
| 4:30 PM | 2 | 1 | 0 | 0 | 3 | 0 | 50 | 0 | 0 | 50 | 90 | 1 | 0 | 0 | 91 | 144 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 46 | 90 | 2 | 0 | 0 | 92 | 138 |
| 5:00 PM | 1 | 0 | 0 | 0 | 1 | 4 | 32 | 0 | 0 | 36 | 81 | 2 | 0 | 0 | 83 | 120 |
| 5:15 PM | 1 | 1 | 0 | 0 | 2 | 1 | 31 | 0 | 0 | 32 | 104 | 0 | 0 | 0 | 104 | 138 |
| Total | 4 | 2 | 0 | 0 | 6 | 5 | 159 | 0 | 0 | 164 | 365 | 5 | 0 | 0 | 370 | 540 |
| Approach % | 66.7 | 33.3 | 0.0 | - | - | 3.0 | 97.0 | 0.0 | - | - | 98.6 | 1.4 | 0.0 | - | - | - |
| Total % | 0.7 | 0.4 | 0.0 | - | 1.1 | 0.9 | 29.4 | 0.0 | - | 30.4 | 67.6 | 0.9 | 0.0 | - | 68.5 | - |
| PHF | 0.500 | 0.500 | 0.000 | - | 0.500 | 0.313 | 0.795 | 0.000 | - | 0.820 | 0.877 | 0.625 | 0.000 | - | 0.889 | 0.938 |
| Lights | 4 | 2 | 0 | - | 6 | 5 | 148 | 0 | - | 153 | 352 | 5 | 0 | - | 357 | 516 |
| % Lights | 100.0 | 100.0 | - | - | 100.0 | 100.0 | 93.1 | - | - | 93.3 | 96.4 | 100.0 | - | - | 96.5 | 95.6 |
| Buses | 0 | 0 | 0 | - | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 0 | - | 0 | 1 |
| % Buses | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.6 | - | - | 0.6 | 0.0 | 0.0 | - | - | 0.0 | 0.2 |
| Trucks | 0 | 0 | 0 | - | 0 | 0 | 10 | 0 | - | 10 | 13 | 0 | 0 | - | 13 | 23 |
| % Trucks | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 6.3 | - | - | 6.1 | 3.6 | 0.0 | - | - | 3.5 | 4.3 |
| Bicycles on Crosswalk | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | 0 | - | - | - | - | 0 | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

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Port of Albany, NY
NY 144/Clapper Road
Tuesday, February 26,2019
Location: 42.552503, -73.769465

Count Name: NY 144/Clapper Rd
Site Code: Bethlehem, New York
Start Date: 02/26/2019


NY 144 [SB]

| Out | In | Total |
|---|---|---|
| 152 | 357 | 509 |
| 1 | 0 | 1 |
| 10 | 13 | 23 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **163** | **370** | **533** |

| R | T | U | P |
|---|---|---|---|
| 5 | 352 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 13 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **5** | **365** | **0** | **0** |

Clapper Rd [EB]

| Out | In | Total |
|---|---|---|
| 10 | 6 | 16 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **10** | **6** | **16** |

| U | L | R | P |
|---|---|---|---|
| 0 | 4 | 2 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **4** | **2** | **0** |

**Peak Hour Data**

02/26/2019 4:30 PM
Ending At
02/26/2019 5:30 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

| U | L | T | P |
|---|---|---|---|
| 0 | 5 | 148 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 0 | 10 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| **0** | **5** | **159** | **0** |

| Out | In | Total |
|---|---|---|
| 354 | 153 | 507 |
| 0 | 1 | 1 |
| 13 | 10 | 23 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **367** | **164** | **531** |

NY 144 [NB]

Turning Movement Peak Hour Data Plot (4:30 PM)

TRI-STATE TRAFFIC DATA

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Port of Albany, NY
US 9W/Glenmont Road
Tuesday, February 26, 2019
Location: 42.601883, -73.791855

Count Name: US 9W/Glenmont Rd
Site Code: Albany, New York
Start Date: 02/26/2019


# Turning Movement Data

| | Feura Bush Rd | | | | | | | Glenmont Rd | | | | | | | US 9W | | | | | | | US 9W | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Eastbound | | | | | | | Westbound | | | | | | | Northbound | | | | | | | Southbound | | | | | | | |
| Start Time | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 7:00 AM | 51 | 16 | 3 | 0 | 0 | 0 | 70 | 10 | 20 | 4 | 4 | 0 | 0 | 38 | 4 | 110 | 9 | 0 | 0 | 0 | 123 | 1 | 54 | 10 | 4 | 0 | 0 | 69 | 300 |
| 7:15 AM | 82 | 13 | 8 | 1 | 0 | 0 | 104 | 5 | 19 | 5 | 6 | 0 | 0 | 35 | 4 | 123 | 10 | 4 | 0 | 0 | 141 | 3 | 56 | 14 | 1 | 0 | 0 | 74 | 354 |
| 7:30 AM | 69 | 29 | 6 | 0 | 0 | 0 | 104 | 7 | 15 | 9 | 4 | 0 | 1 | 35 | 5 | 133 | 9 | 0 | 0 | 0 | 147 | 1 | 51 | 16 | 3 | 0 | 0 | 71 | 357 |
| 7:45 AM | 75 | 35 | 6 | 2 | 0 | 0 | 118 | 9 | 13 | 7 | 11 | 0 | 0 | 40 | 3 | 120 | 13 | 3 | 0 | 0 | 139 | 5 | 43 | 15 | 8 | 0 | 0 | 71 | 368 |
| Hourly Total | 277 | 93 | 23 | 3 | 0 | 0 | 396 | 31 | 67 | 25 | 25 | 0 | 1 | 148 | 16 | 486 | 41 | 7 | 0 | 0 | 550 | 10 | 204 | 55 | 16 | 0 | 0 | 285 | 1379 |
| 8:00 AM | 72 | 27 | 5 | 2 | 0 | 0 | 106 | 8 | 17 | 6 | 8 | 0 | 2 | 39 | 3 | 130 | 11 | 1 | 0 | 1 | 145 | 9 | 50 | 22 | 5 | 0 | 0 | 86 | 376 |
| 8:15 AM | 77 | 21 | 6 | 1 | 0 | 0 | 105 | 13 | 16 | 7 | 6 | 0 | 0 | 42 | 5 | 116 | 18 | 2 | 0 | 0 | 141 | 10 | 56 | 25 | 13 | 0 | 0 | 104 | 392 |
| 8:30 AM | 59 | 23 | 7 | 1 | 0 | 0 | 90 | 9 | 9 | 8 | 6 | 0 | 0 | 32 | 2 | 107 | 18 | 0 | 0 | 1 | 127 | 3 | 41 | 19 | 9 | 0 | 1 | 72 | 321 |
| 8:45 AM | 64 | 17 | 10 | 0 | 0 | 0 | 91 | 14 | 22 | 19 | 2 | 0 | 0 | 57 | 4 | 110 | 13 | 1 | 0 | 0 | 128 | 8 | 40 | 16 | 11 | 0 | 0 | 75 | 351 |
| Hourly Total | 272 | 88 | 28 | 4 | 0 | 0 | 392 | 44 | 64 | 40 | 22 | 0 | 2 | 170 | 14 | 463 | 60 | 4 | 0 | 2 | 541 | 30 | 187 | 82 | 38 | 0 | 1 | 337 | 1440 |
| 9:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Hourly Total | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 4:00 PM | 44 | 28 | 5 | 4 | 0 | 0 | 81 | 29 | 48 | 12 | 0 | 0 | 2 | 89 | 2 | 87 | 11 | 0 | 0 | 0 | 100 | 8 | 98 | 52 | 27 | 0 | 0 | 185 | 455 |
| 4:15 PM | 47 | 29 | 7 | 1 | 0 | 0 | 84 | 31 | 53 | 10 | 4 | 0 | 3 | 98 | 6 | 69 | 6 | 1 | 0 | 0 | 82 | 18 | 116 | 28 | 35 | 0 | 0 | 197 | 461 |
| 4:30 PM | 48 | 15 | 1 | 3 | 0 | 0 | 67 | 47 | 51 | 8 | 3 | 0 | 0 | 109 | 2 | 55 | 11 | 2 | 0 | 0 | 70 | 13 | 101 | 52 | 24 | 0 | 0 | 190 | 436 |
| 4:45 PM | 50 | 32 | 10 | 0 | 0 | 0 | 92 | 35 | 55 | 8 | 1 | 0 | 1 | 99 | 10 | 81 | 6 | 1 | 0 | 0 | 98 | 14 | 99 | 58 | 22 | 0 | 0 | 193 | 482 |
| Hourly Total | 189 | 104 | 23 | 8 | 0 | 0 | 324 | 142 | 207 | 38 | 8 | 0 | 6 | 395 | 20 | 292 | 34 | 4 | 0 | 0 | 350 | 53 | 414 | 190 | 108 | 0 | 0 | 765 | 1834 |
| 5:00 PM | 43 | 23 | 3 | 6 | 1 | 0 | 76 | 48 | 58 | 15 | 3 | 0 | 0 | 124 | 3 | 69 | 12 | 0 | 0 | 0 | 84 | 12 | 106 | 74 | 17 | 0 | 0 | 209 | 493 |
| 5:15 PM | 44 | 30 | 3 | 1 | 0 | 0 | 78 | 40 | 61 | 14 | 1 | 0 | 0 | 116 | 5 | 61 | 16 | 2 | 0 | 0 | 84 | 10 | 116 | 70 | 30 | 0 | 0 | 226 | 504 |
| 5:30 PM | 63 | 23 | 1 | 5 | 0 | 0 | 92 | 43 | 51 | 12 | 4 | 0 | 0 | 110 | 4 | 76 | 10 | 1 | 0 | 0 | 91 | 9 | 90 | 56 | 41 | 0 | 0 | 196 | 489 |
| 5:45 PM | 57 | 16 | 4 | 6 | 0 | 0 | 83 | 28 | 60 | 8 | 2 | 0 | 0 | 98 | 5 | 71 | 4 | 1 | 0 | 0 | 81 | 10 | 96 | 81 | 23 | 0 | 0 | 210 | 472 |
| Hourly Total | 207 | 92 | 11 | 18 | 1 | 0 | 329 | 159 | 230 | 49 | 10 | 0 | 0 | 448 | 17 | 277 | 42 | 4 | 0 | 0 | 340 | 41 | 408 | 281 | 111 | 0 | 0 | 841 | 1958 |
| 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 946 | 377 | 85 | 33 | 1 | 0 | 1442 | 377 | 568 | 152 | 65 | 0 | 9 | 1162 | 67 | 1518 | 177 | 19 | 0 | 2 | 1781 | 134 | 1213 | 608 | 273 | 0 | 1 | 2228 | 6613 |
| Approach % | 65.6 | 26.1 | 5.9 | 2.3 | 0.1 | - | - | 32.4 | 48.9 | 13.1 | 5.6 | 0.0 | - | - | 3.8 | 85.2 | 9.9 | 1.1 | 0.0 | - | - | 6.0 | 54.4 | 27.3 | 12.3 | 0.0 | - | - | - |
| Total % | 14.3 | 5.7 | 1.3 | 0.5 | 0.0 | - | 21.8 | 5.7 | 8.6 | 2.3 | 1.0 | 0.0 | - | 17.6 | 1.0 | 23.0 | 2.7 | 0.3 | 0.0 | - | 26.9 | 2.0 | 18.3 | 9.2 | 4.1 | 0.0 | - | 33.7 | - |
| Lights | 935 | 371 | 82 | 33 | 1 | - | 1422 | 372 | 559 | 143 | 62 | 0 | - | 1136 | 65 | 1455 | 171 | 18 | 0 | - | 1709 | 129 | 1165 | 600 | 268 | 0 | - | 2162 | 6429 |
| % Lights | 98.8 | 98.4 | 96.5 | 100.0 | 100.0 | - | 98.6 | 98.7 | 98.4 | 94.1 | 95.4 | - | - | 97.8 | 97.0 | 95.8 | 96.6 | 94.7 | - | - | 96.0 | 96.3 | 96.0 | 98.7 | 98.2 | - | - | 97.0 | 97.2 |
| Buses | 4 | 6 | 2 | 0 | 0 | - | 12 | 1 | 5 | 2 | 0 | 0 | - | 8 | 1 | 10 | 3 | 0 | 0 | - | 14 | 1 | 3 | 3 | 0 | 0 | - | 7 | 41 |
| % Buses | 0.4 | 1.6 | 2.4 | 0.0 | 0.0 | - | 0.8 | 0.3 | 0.9 | 1.3 | 0.0 | - | - | 0.7 | 1.5 | 0.7 | 1.7 | 0.0 | - | - | 0.8 | 0.7 | 0.2 | 0.5 | 0.0 | - | - | 0.3 | 0.6 |
| Trucks | 7 | 0 | 1 | 0 | 0 | - | 8 | 4 | 4 | 7 | 3 | 0 | - | 18 | 1 | 53 | 3 | 1 | 0 | - | 58 | 4 | 45 | 5 | 5 | 0 | - | 59 | 143 |
| % Trucks | 0.7 | 0.0 | 1.2 | 0.0 | 0.0 | - | 0.6 | 1.1 | 0.7 | 4.6 | 4.6 | - | - | 1.5 | 1.5 | 3.5 | 1.7 | 5.3 | - | - | 3.3 | 3.0 | 3.7 | 0.8 | 1.8 | - | - | 2.6 | 2.2 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 9 | - | - | - | - | - | - | 2 | - | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - |

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Port of Albany, NY
US 9W/Glenmont Road
Tuesday, February 26, 2019
Location: 42.601883, -73.791855

Count Name: US 9W/Glenmont Rd
Site Code: Albany, New York
Start Date: 02/26/2019


US 9W [SB]

| Out | In | Total |
|---|---|---|
| 2595 | 2162 | 4757 |
| 16 | 7 | 23 |
| 70 | 59 | 129 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **2681** | **2228** | **4909** |

| R | T | L | U | P |
|---|---|---|---|---|
| 868 | 1165 | 129 | 0 | 0 |
| 3 | 3 | 1 | 0 | 0 |
| 10 | 45 | 4 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 |
| **881** | **1213** | **134** | **0** | **1** |

Feura Bush Rd [EB]

| Out | In | Total |
|---|---|---|
| 1493 | 1422 | 2915 |
| 9 | 12 | 21 |
| 15 | 8 | 23 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1517** | **1442** | **2959** |

| U | L | T | R | P |
|---|---|---|---|---|
| 1 | 935 | 371 | 115 | 0 |
| 0 | 4 | 6 | 2 | 0 |
| 0 | 7 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **1** | **946** | **377** | **118** | **0** |

02/26/2019 7:00 AM
Ending At
02/26/2019 6:15 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

Glenmont Rd [WB]

| Out | In | Total |
|---|---|---|
| 689 | 1136 | 1825 |
| 10 | 8 | 18 |
| 8 | 18 | 26 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **707** | **1162** | **1869** |

| R | T | L | U | P |
|---|---|---|---|---|
| 205 | 559 | 372 | 0 | 0 |
| 2 | 5 | 1 | 0 | 0 |
| 10 | 4 | 4 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 6 |
| **217** | **568** | **377** | **0** | **6** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 65 | 1455 | 189 | 0 |
| 0 | 1 | 10 | 3 | 0 |
| 0 | 1 | 53 | 4 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 2 |
| **0** | **67** | **1518** | **196** | **2** |

| Out | In | Total |
|---|---|---|
| 1652 | 1709 | 3361 |
| 6 | 14 | 20 |
| 50 | 58 | 108 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **1708** | **1781** | **3489** |

US 9W [NB]

Turning Movement Data Plot

Port of Albany, NY
US 9W/Glenmont Road
Tuesday, February 26, 2019
Location: 42.601883, -73.791855

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Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: US 9W/Glenmont Rd
Site Code: Albany, New York
Start Date: 02/26/2019


# Turning Movement Peak Hour Data (7:30 AM)

| Start Time | Feura Bush Rd Eastbound | | | | | | | Glenmont Rd Westbound | | | | | | | US 9W Northbound | | | | | | | US 9W Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 7:30 AM | 69 | 29 | 6 | 0 | 0 | 0 | 104 | 7 | 15 | 9 | 4 | 0 | 1 | 35 | 5 | 133 | 9 | 0 | 0 | 0 | 147 | 1 | 51 | 16 | 3 | 0 | 0 | 71 | 357 |
| 7:45 AM | 75 | 35 | 6 | 2 | 0 | 0 | 118 | 9 | 13 | 7 | 11 | 0 | 0 | 40 | 3 | 120 | 13 | 3 | 0 | 0 | 139 | 5 | 43 | 15 | 8 | 0 | 0 | 71 | 368 |
| 8:00 AM | 72 | 27 | 5 | 2 | 0 | 0 | 106 | 8 | 17 | 6 | 8 | 0 | 2 | 39 | 3 | 130 | 11 | 1 | 0 | 1 | 145 | 9 | 50 | 22 | 5 | 0 | 0 | 86 | 376 |
| 8:15 AM | 77 | 21 | 6 | 1 | 0 | 0 | 105 | 13 | 16 | 7 | 6 | 0 | 0 | 42 | 5 | 116 | 18 | 2 | 0 | 0 | 141 | 10 | 56 | 25 | 13 | 0 | 0 | 104 | 392 |
| Total | 293 | 112 | 23 | 5 | 0 | 0 | 433 | 37 | 61 | 29 | 29 | 0 | 3 | 156 | 16 | 499 | 51 | 6 | 0 | 1 | 572 | 25 | 200 | 78 | 29 | 0 | 0 | 332 | 1493 |
| Approach % | 67.7 | 25.9 | 5.3 | 1.2 | 0.0 | - | - | 23.7 | 39.1 | 18.6 | 18.6 | 0.0 | - | - | 2.8 | 87.2 | 8.9 | 1.0 | 0.0 | - | - | 7.5 | 60.2 | 23.5 | 8.7 | 0.0 | - | - | - |
| Total % | 19.6 | 7.5 | 1.5 | 0.3 | 0.0 | - | 29.0 | 2.5 | 4.1 | 1.9 | 1.9 | 0.0 | - | 10.4 | 1.1 | 33.4 | 3.4 | 0.4 | 0.0 | - | 38.3 | 1.7 | 13.4 | 5.2 | 1.9 | 0.0 | - | 22.2 | - |
| PHF | 0.951 | 0.800 | 0.958 | 0.625 | 0.000 | - | 0.917 | 0.712 | 0.897 | 0.806 | 0.659 | 0.000 | - | 0.929 | 0.800 | 0.938 | 0.708 | 0.500 | 0.000 | - | 0.973 | 0.625 | 0.893 | 0.780 | 0.558 | 0.000 | - | 0.798 | 0.952 |
| Lights | 286 | 109 | 22 | 5 | 0 | - | 422 | 36 | 59 | 27 | 29 | 0 | - | 151 | 15 | 473 | 50 | 6 | 0 | - | 544 | 24 | 181 | 77 | 29 | 0 | - | 311 | 1428 |
| % Lights | 97.6 | 97.3 | 95.7 | 100.0 | - | - | 97.5 | 97.3 | 96.7 | 93.1 | 100.0 | - | - | 96.8 | 93.8 | 94.8 | 98.0 | 100.0 | - | - | 95.1 | 96.0 | 90.5 | 98.7 | 100.0 | - | - | 93.7 | 95.6 |
| Buses | 3 | 3 | 0 | 0 | 0 | - | 6 | 0 | 1 | 1 | 0 | 0 | - | 2 | 0 | 2 | 0 | 0 | 0 | - | 2 | 0 | 2 | 0 | 0 | 0 | - | 2 | 12 |
| % Buses | 1.0 | 2.7 | 0.0 | 0.0 | - | - | 1.4 | 0.0 | 1.6 | 3.4 | 0.0 | - | - | 1.3 | 0.0 | 0.4 | 0.0 | 0.0 | - | - | 0.3 | 0.0 | 1.0 | 0.0 | 0.0 | - | - | 0.6 | 0.8 |
| Trucks | 4 | 0 | 1 | 0 | 0 | - | 5 | 1 | 1 | 1 | 0 | 0 | - | 3 | 1 | 24 | 1 | 0 | 0 | - | 26 | 1 | 17 | 1 | 0 | 0 | - | 19 | 53 |
| % Trucks | 1.4 | 0.0 | 4.3 | 0.0 | - | - | 1.2 | 2.7 | 1.6 | 3.4 | 0.0 | - | - | 1.9 | 6.3 | 4.8 | 2.0 | 0.0 | - | - | 4.5 | 4.0 | 8.5 | 1.3 | 0.0 | - | - | 5.7 | 3.5 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - |

TRI-STATE TRAFFIC DATA

www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Port of Albany, NY
US 9W/Glenmont Road
Tuesday, February 26, 2019
Location: 42.601883, -73.791855

Count Name: US 9W/Glenmont Rd
Site Code: Albany, New York
Start Date: 02/26/2019


US 9W [SB]

| Out | In | Total |
|---|---|---|
| 815 | 311 | 1126 |
| 6 | 2 | 8 |
| 29 | 19 | 48 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **850** | **332** | **1182** |

| R | T | L | U | P |
|---|---|---|---|---|
| 106 | 181 | 24 | 0 | 0 |
| 0 | 2 | 0 | 0 | 0 |
| 1 | 17 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **107** | **200** | **25** | **0** | **0** |

Feura Bush Rd [EB]

| Out | In | Total |
|---|---|---|
| 180 | 422 | 602 |
| 1 | 6 | 7 |
| 3 | 5 | 8 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **184** | **433** | **617** |

| P | R | T | L | U |
|---|---|---|---|---|
| 0 | 27 | 109 | 286 | 0 |
| 0 | 0 | 3 | 3 | 0 |
| 0 | 1 | 0 | 4 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **0** | **28** | **112** | **293** | **0** |

## Peak Hour Data

02/26/2019 7:30 AM
Ending At
02/26/2019 8:30 AM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

Glenmont Rd [WB]

| Out | In | Total |
|---|---|---|
| 189 | 151 | 340 |
| 3 | 2 | 5 |
| 2 | 3 | 5 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **194** | **156** | **350** |

| R | T | L | U | P |
|---|---|---|---|---|
| 56 | 59 | 36 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 3 |
| **58** | **61** | **37** | **0** | **3** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 15 | 473 | 56 | 0 |
| 0 | 0 | 2 | 0 | 0 |
| 0 | 1 | 24 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 |
| **0** | **16** | **499** | **57** | **1** |

| Out | In | Total |
|---|---|---|
| 244 | 544 | 788 |
| 2 | 2 | 4 |
| 19 | 26 | 45 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **265** | **572** | **837** |

US 9W [NB]

Turning Movement Peak Hour Data Plot (7:30 AM)

TRI-STATE TRAFFIC DATA
www.TSTData.com
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Port of Albany, NY
US 9W/Glenmont Road
Tuesday, February 26, 2019
Location: 42.601883, -73.791855

Count Name: US 9W/Glenmont Rd
Site Code: Albany, New York
Start Date: 02/26/2019


# Turning Movement Peak Hour Data (4:45 PM)

| | Feura Bush Rd Eastbound | | | | | | | Glenmont Rd Westbound | | | | | | | US 9W Northbound | | | | | | | US 9W Southbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Left | Thru | Right | Right on Red | U-Turn | Peds | App. Total | Int. Total |
| 4:45 PM | 50 | 32 | 10 | 0 | 0 | 0 | 92 | 35 | 55 | 8 | 1 | 0 | 1 | 99 | 10 | 81 | 6 | 1 | 0 | 0 | 98 | 14 | 99 | 58 | 22 | 0 | 0 | 193 | 482 |
| 5:00 PM | 43 | 23 | 3 | 6 | 1 | 0 | 76 | 48 | 58 | 15 | 3 | 0 | 0 | 124 | 3 | 69 | 12 | 0 | 0 | 0 | 84 | 12 | 106 | 74 | 17 | 0 | 0 | 209 | 493 |
| 5:15 PM | 44 | 30 | 3 | 1 | 0 | 0 | 78 | 40 | 61 | 14 | 1 | 0 | 0 | 116 | 5 | 61 | 16 | 2 | 0 | 0 | 84 | 10 | 116 | 70 | 30 | 0 | 0 | 226 | 504 |
| 5:30 PM | 63 | 23 | 1 | 5 | 0 | 0 | 92 | 43 | 51 | 12 | 4 | 0 | 0 | 110 | 4 | 76 | 10 | 1 | 0 | 0 | 91 | 9 | 90 | 56 | 41 | 0 | 0 | 196 | 489 |
| Total | 200 | 108 | 17 | 12 | 1 | 0 | 338 | 166 | 225 | 49 | 9 | 0 | 1 | 449 | 22 | 287 | 44 | 4 | 0 | 0 | 357 | 45 | 411 | 258 | 110 | 0 | 0 | 824 | 1968 |
| Approach % | 59.2 | 32.0 | 5.0 | 3.6 | 0.3 | - | - | 37.0 | 50.1 | 10.9 | 2.0 | 0.0 | - | - | 6.2 | 80.4 | 12.3 | 1.1 | 0.0 | - | - | 5.5 | 49.9 | 31.3 | 13.3 | 0.0 | - | - | - |
| Total % | 10.2 | 5.5 | 0.9 | 0.6 | 0.1 | - | 17.2 | 8.4 | 11.4 | 2.5 | 0.5 | 0.0 | - | 22.8 | 1.1 | 14.6 | 2.2 | 0.2 | 0.0 | - | 18.1 | 2.3 | 20.9 | 13.1 | 5.6 | 0.0 | - | 41.9 | - |
| PHF | 0.794 | 0.844 | 0.425 | 0.500 | 0.250 | - | 0.918 | 0.865 | 0.922 | 0.817 | 0.563 | 0.000 | - | 0.905 | 0.550 | 0.886 | 0.688 | 0.500 | 0.000 | - | 0.911 | 0.804 | 0.886 | 0.872 | 0.671 | 0.000 | - | 0.912 | 0.976 |
| Lights | 199 | 108 | 17 | 12 | 1 | - | 337 | 165 | 225 | 48 | 8 | 0 | - | 446 | 22 | 284 | 44 | 4 | 0 | - | 354 | 44 | 410 | 258 | 110 | 0 | - | 822 | 1959 |
| % Lights | 99.5 | 100.0 | 100.0 | 100.0 | 100.0 | - | 99.7 | 99.4 | 100.0 | 98.0 | 88.9 | - | - | 99.3 | 100.0 | 99.0 | 100.0 | 100.0 | - | - | 99.2 | 97.8 | 99.8 | 100.0 | 100.0 | - | - | 99.8 | 99.5 |
| Buses | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Buses | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | - | 0.0 | 0.0 |
| Trucks | 1 | 0 | 0 | 0 | 0 | - | 1 | 1 | 0 | 1 | 1 | 0 | - | 3 | 0 | 3 | 0 | 0 | 0 | - | 3 | 1 | 1 | 0 | 0 | 0 | - | 2 | 9 |
| % Trucks | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.3 | 0.6 | 0.0 | 2.0 | 11.1 | - | - | 0.7 | 0.0 | 1.0 | 0.0 | 0.0 | - | - | 0.8 | 2.2 | 0.2 | 0.0 | 0.0 | - | - | 0.2 | 0.5 |
| Bicycles on Crosswalk | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Bicycles on Crosswalk | - | - | - | - | - | - | - | - | - | - | - | - | 0.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pedestrians | - | - | - | - | - | 0 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 0 | - | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Port of Albany, NY
US 9W/Glenmont Road
Tuesday, February 26, 2019
Location: 42.601883, -73.791855

TRI-STATE TRAFFIC DATA
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## Peak Hour Data

02/26/2019 4:45 PM
Ending At
02/26/2019 5:45 PM

Lights
Buses
Trucks
Bicycles on Crosswalk
Pedestrians

US 9W [SB]

| Out | In | Total |
|---|---|---|
| 539 | 822 | 1361 |
| 0 | 0 | 0 |
| 6 | 2 | 8 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **545** | **824** | **1369** |

| R | T | L | U | P |
|---|---|---|---|---|
| 368 | 410 | 44 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **368** | **411** | **45** | **0** | **0** |

Feura Bush Rd [EB]

| Out | In | Total |
|---|---|---|
| 616 | 337 | 953 |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **616** | **338** | **954** |

| U | L | T | R | P |
|---|---|---|---|---|
| 1 | 199 | 108 | 29 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **1** | **200** | **108** | **29** | **0** |

Glenmont Rd [WB]

| Out | In | Total |
|---|---|---|
| 200 | 446 | 646 |
| 0 | 0 | 0 |
| 1 | 3 | 4 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **201** | **449** | **650** |

| R | T | L | U | P |
|---|---|---|---|---|
| 56 | 225 | 165 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 |
| **58** | **225** | **166** | **0** | **1** |

| U | L | T | R | P |
|---|---|---|---|---|
| 0 | 22 | 284 | 48 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 3 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| **0** | **22** | **287** | **48** | **0** |

| Out | In | Total |
|---|---|---|
| 604 | 354 | 958 |
| 0 | 0 | 0 |
| 2 | 3 | 5 |
| 0 | 0 | 0 |
| 0 | 0 | 0 |
| **606** | **357** | **963** |

US 9W [NB]

Turning Movement Peak Hour Data Plot (4:45 PM)

# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by GUY
Performed via Count Board

File Name : 9W Off-Ramp - AM
Site Code : 00081519
Start Date : 8/15/2019
Page No : 1

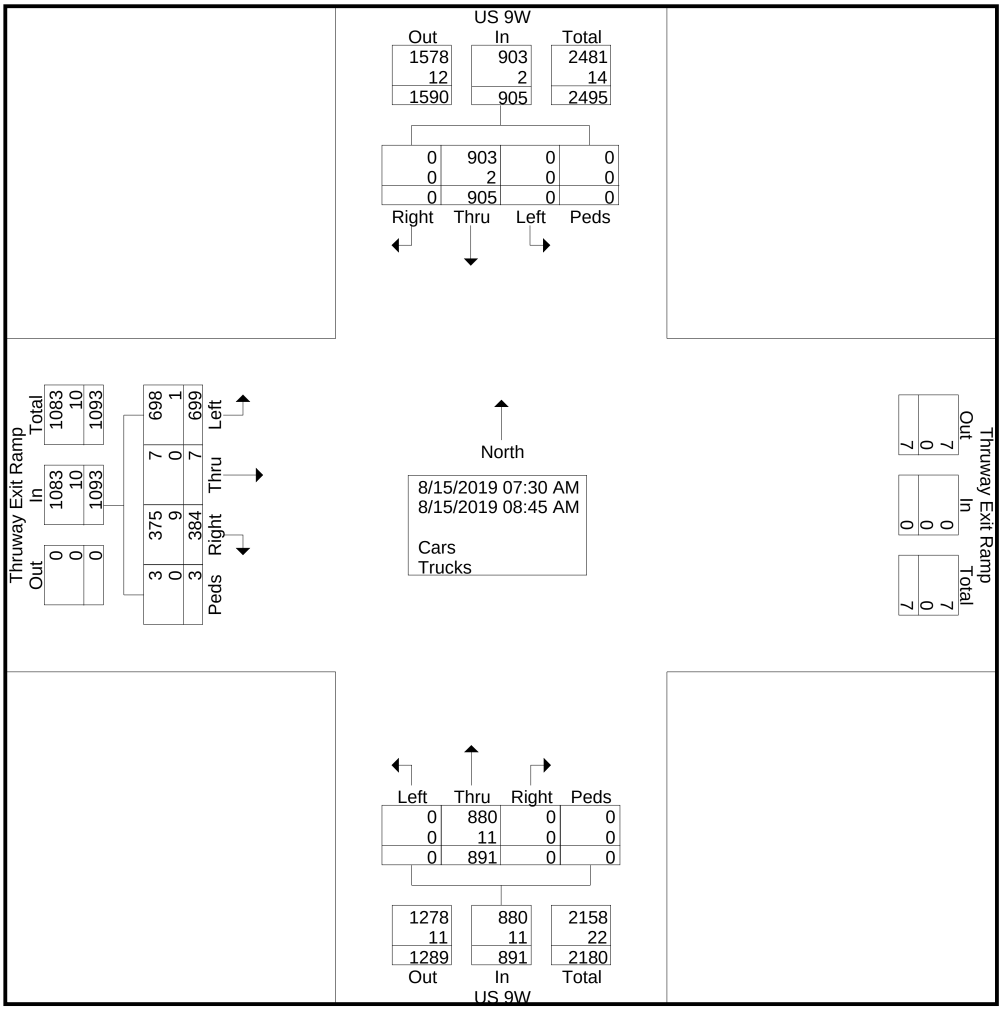
Groups Printed- Cars - Trucks

| | US 9W From North | | | | | US 9W From South | | | | | Thruway Exit Ramp From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:30 AM | 0 | 150 | 0 | 0 | 150 | 0 | 179 | 0 | 0 | 179 | 67 | 0 | 112 | 3 | 182 | 511 |
| 07:45 AM | 0 | 155 | 0 | 0 | 155 | 0 | 162 | 0 | 0 | 162 | 76 | 0 | 153 | 0 | 229 | 546 |
| Total | 0 | 305 | 0 | 0 | 305 | 0 | 341 | 0 | 0 | 341 | 143 | 0 | 265 | 3 | 411 | 1057 |
| 08:00 AM | 0 | 154 | 0 | 0 | 154 | 0 | 132 | 0 | 0 | 132 | 57 | 0 | 108 | 0 | 165 | 451 |
| 08:15 AM | 0 | 157 | 0 | 0 | 157 | 0 | 142 | 0 | 0 | 142 | 84 | 0 | 103 | 0 | 187 | 486 |
| 08:30 AM | 0 | 142 | 0 | 0 | 142 | 0 | 144 | 0 | 0 | 144 | 43 | 5 | 110 | 0 | 158 | 444 |
| 08:45 AM | 0 | 147 | 0 | 0 | 147 | 0 | 132 | 0 | 0 | 132 | 57 | 2 | 113 | 0 | 172 | 451 |
| Total | 0 | 600 | 0 | 0 | 600 | 0 | 550 | 0 | 0 | 550 | 241 | 7 | 434 | 0 | 682 | 1832 |
| Grand Total | 0 | 905 | 0 | 0 | 905 | 0 | 891 | 0 | 0 | 891 | 384 | 7 | 699 | 3 | 1093 | 2889 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 35.1 | 0.6 | 64 | 0.3 | | |
| Total % | 0 | 31.3 | 0 | 0 | 31.3 | 0 | 30.8 | 0 | 0 | 30.8 | 13.3 | 0.2 | 24.2 | 0.1 | 37.8 | |
| Cars | 0 | 903 | 0 | 0 | 903 | 0 | 880 | 0 | 0 | 880 | 375 | 7 | 698 | 3 | 1083 | 2866 |
| % Cars | 0 | 99.8 | 0 | 0 | 99.8 | 0 | 98.8 | 0 | 0 | 98.8 | 97.7 | 100 | 99.9 | 100 | 99.1 | 99.2 |
| Trucks | 0 | 2 | 0 | 0 | 2 | 0 | 11 | 0 | 0 | 11 | 9 | 0 | 1 | 0 | 10 | 23 |
| % Trucks | 0 | 0.2 | 0 | 0 | 0.2 | 0 | 1.2 | 0 | 0 | 1.2 | 2.3 | 0 | 0.1 | 0 | 0.9 | 0.8 |

# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : 9W Off-Ramp - AM
Site Code : 00081519
Start Date : 8/15/2019
Page No : 2



# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : 9W Off-Ramp - AM
Site Code : 00081519
Start Date : 8/15/2019
Page No : 3

| | US 9W From North | | | | | US 9W From South | | | | | Thruway Exit Ramp From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 150 | 0 | 0 | 150 | 0 | **179** | 0 | 0 | **179** | 67 | 0 | 112 | **3** | 182 | 511 |
| 07:45 AM | 0 | 155 | 0 | 0 | 155 | 0 | 162 | 0 | 0 | 162 | 76 | 0 | **153** | 0 | **229** | **546** |
| 08:00 AM | 0 | 154 | 0 | 0 | 154 | 0 | 132 | 0 | 0 | 132 | 57 | 0 | 108 | 0 | 165 | 451 |
| 08:15 AM | 0 | **157** | 0 | 0 | **157** | 0 | 142 | 0 | 0 | 142 | **84** | 0 | 103 | 0 | 187 | 486 |
| Total Volume | 0 | 616 | 0 | 0 | 616 | 0 | 615 | 0 | 0 | 615 | 284 | 0 | 476 | 3 | 763 | 1994 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 37.2 | 0 | 62.4 | 0.4 | | |
| PHF | .000 | .981 | .000 | .000 | .981 | .000 | .859 | .000 | .000 | .859 | .845 | .000 | .778 | .250 | .833 | .913 |
| Cars | 0 | 614 | 0 | 0 | 614 | 0 | 604 | 0 | 0 | 604 | 275 | 0 | 475 | 3 | 753 | 1971 |
| % Cars | 0 | 99.7 | 0 | 0 | 99.7 | 0 | 98.2 | 0 | 0 | 98.2 | 96.8 | 0 | 99.8 | 100 | 98.7 | 98.8 |
| Trucks | 0 | 2 | 0 | 0 | 2 | 0 | 11 | 0 | 0 | 11 | 9 | 0 | 1 | 0 | 10 | 23 |
| % Trucks | 0 | 0.3 | 0 | 0 | 0.3 | 0 | 1.8 | 0 | 0 | 1.8 | 3.2 | 0 | 0.2 | 0 | 1.3 | 1.2 |

Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 07:30 AM | | | | | 07:30 AM | | | | | 07:30 AM | | | | |
| +0 mins. | 0 | 150 | 0 | 0 | 150 | 0 | **179** | 0 | 0 | **179** | 67 | 0 | 112 | **3** | 182 |
| +15 mins. | 0 | 155 | 0 | 0 | 155 | 0 | 162 | 0 | 0 | 162 | 76 | 0 | **153** | 0 | **229** |
| +30 mins. | 0 | 154 | 0 | 0 | 154 | 0 | 132 | 0 | 0 | 132 | 57 | 0 | 108 | 0 | 165 |
| +45 mins. | 0 | **157** | 0 | 0 | **157** | 0 | 142 | 0 | 0 | 142 | **84** | 0 | 103 | 0 | 187 |
| Total Volume | 0 | 616 | 0 | 0 | 616 | 0 | 615 | 0 | 0 | 615 | 284 | 0 | 476 | 3 | 763 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 37.2 | 0 | 62.4 | 0.4 | |
| PHF | .000 | .981 | .000 | .000 | .981 | .000 | .859 | .000 | .000 | .859 | .845 | .000 | .778 | .250 | .833 |
| Cars | 0 | 614 | 0 | 0 | 614 | 0 | 604 | 0 | 0 | 604 | 275 | 0 | 475 | 3 | 753 |
| % Cars | 0 | 99.7 | 0 | 0 | 99.7 | 0 | 98.2 | 0 | 0 | 98.2 | 96.8 | 0 | 99.8 | 100 | 98.7 |
| Trucks | 0 | 2 | 0 | 0 | 2 | 0 | 11 | 0 | 0 | 11 | 9 | 0 | 1 | 0 | 10 |
| % Trucks | 0 | 0.3 | 0 | 0 | 0.3 | 0 | 1.8 | 0 | 0 | 1.8 | 3.2 | 0 | 0.2 | 0 | 1.3 |

# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424

*Traffic Count Data*

Counts by McFarland Johnson
Counted bu GUY
Performed via Count Board

File Name : 9W Off-Ramp - PM
Site Code : 00081519
Start Date : 8/15/2019
Page No : 1

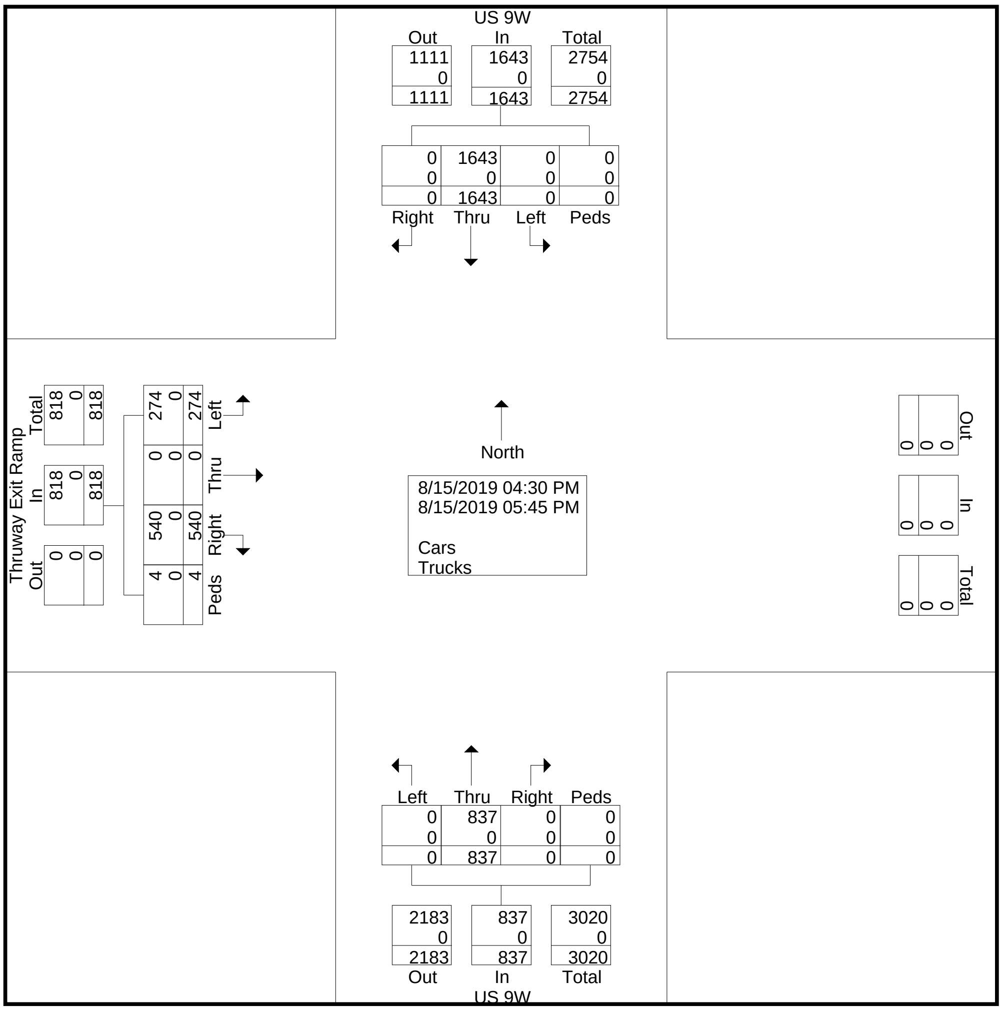
Groups Printed- Cars - Trucks

| | US 9W From North | | | | | US 9W From South | | | | | Thruway Exit Ramp From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:30 PM | 0 | 277 | 0 | 0 | 277 | 0 | 173 | 0 | 0 | 173 | 80 | 0 | 42 | 4 | 126 | 576 |
| 04:45 PM | 0 | 290 | 0 | 0 | 290 | 0 | 166 | 0 | 0 | 166 | 82 | 0 | 46 | 0 | 128 | 584 |
| Total | 0 | 567 | 0 | 0 | 567 | 0 | 339 | 0 | 0 | 339 | 162 | 0 | 88 | 4 | 254 | 1160 |
| | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 314 | 0 | 0 | 314 | 0 | 143 | 0 | 0 | 143 | 77 | 0 | 56 | 0 | 133 | 590 |
| 05:15 PM | 0 | 315 | 0 | 0 | 315 | 0 | 136 | 0 | 0 | 136 | 92 | 0 | 43 | 0 | 135 | 586 |
| 05:30 PM | 0 | 259 | 0 | 0 | 259 | 0 | 111 | 0 | 0 | 111 | 111 | 0 | 42 | 0 | 153 | 523 |
| 05:45 PM | 0 | 188 | 0 | 0 | 188 | 0 | 108 | 0 | 0 | 108 | 98 | 0 | 45 | 0 | 143 | 439 |
| Total | 0 | 1076 | 0 | 0 | 1076 | 0 | 498 | 0 | 0 | 498 | 378 | 0 | 186 | 0 | 564 | 2138 |
| | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 1643 | 0 | 0 | 1643 | 0 | 837 | 0 | 0 | 837 | 540 | 0 | 274 | 4 | 818 | 3298 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 66 | 0 | 33.5 | 0.5 | | |
| Total % | 0 | 49.8 | 0 | 0 | 49.8 | 0 | 25.4 | 0 | 0 | 25.4 | 16.4 | 0 | 8.3 | 0.1 | 24.8 | |
| Cars | 0 | 1643 | 0 | 0 | 1643 | 0 | 837 | 0 | 0 | 837 | 540 | 0 | 274 | 4 | 818 | 3298 |
| % Cars | 0 | 100 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 100 | 100 | 0 | 100 | 100 | 100 | 100 |
| Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : 9W Off-Ramp - PM
Site Code : 00081519
Start Date : 8/15/2019
Page No : 2

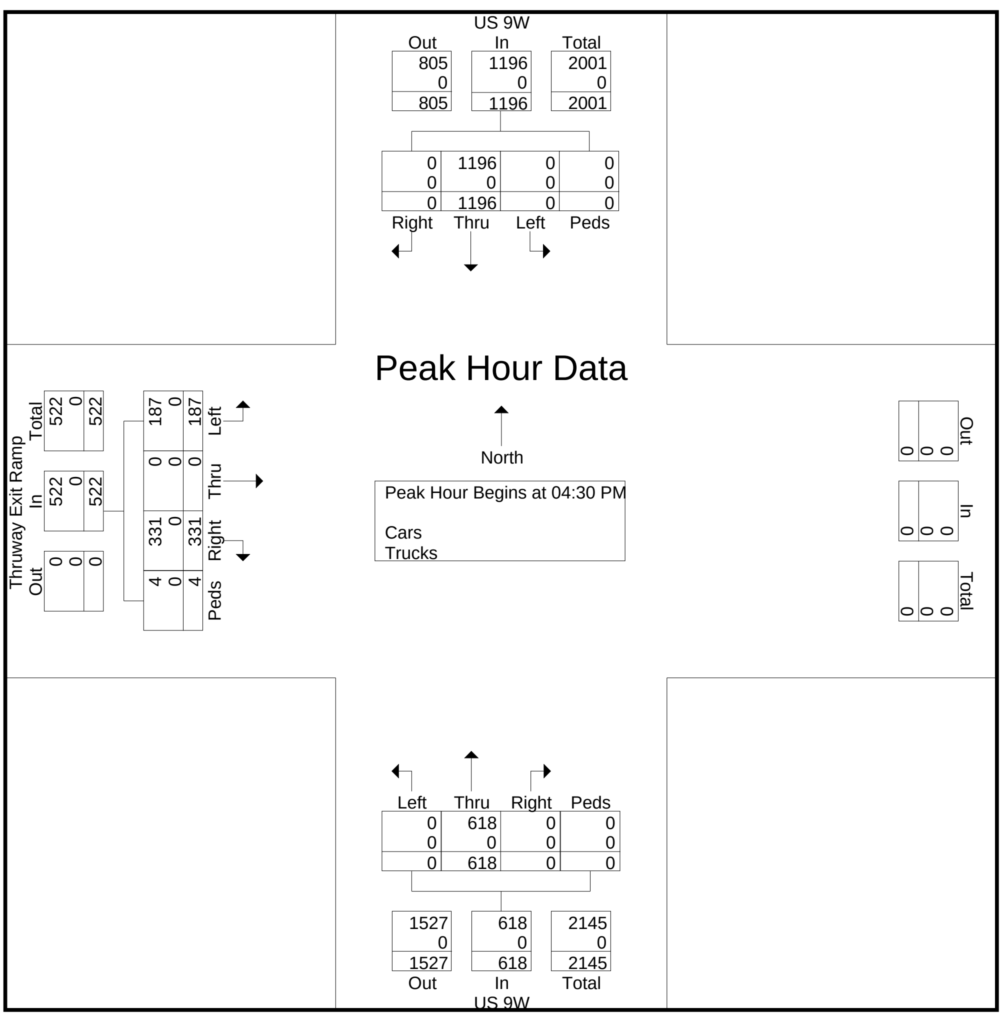


# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : 9W Off-Ramp - PM
Site Code : 00081519
Start Date : 8/15/2019


| | US 9W From North | | | | | US 9W From South | | | | | Thruway Exit Ramp From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | 277 | 0 | 0 | 277 | 0 | **173** | 0 | 0 | **173** | 80 | 0 | 42 | **4** | 126 | 576 |
| 04:45 PM | 0 | 290 | 0 | 0 | 290 | 0 | 166 | 0 | 0 | 166 | 82 | 0 | 46 | 0 | 128 | 584 |
| 05:00 PM | 0 | 314 | 0 | 0 | 314 | 0 | 143 | 0 | 0 | 143 | 77 | 0 | **56** | 0 | 133 | **590** |
| 05:15 PM | 0 | **315** | 0 | 0 | **315** | 0 | 136 | 0 | 0 | 136 | **92** | 0 | 43 | 0 | **135** | 586 |
| Total Volume | 0 | 1196 | 0 | 0 | 1196 | 0 | 618 | 0 | 0 | 618 | 331 | 0 | 187 | 4 | 522 | 2336 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 100 | 0 | 0 | | 63.4 | 0 | 35.8 | 0.8 | | |
| PHF | .000 | .949 | .000 | .000 | .949 | .000 | .893 | .000 | .000 | .893 | .899 | .000 | .835 | .250 | .967 | .990 |
| Cars | 0 | 1196 | 0 | 0 | 1196 | 0 | 618 | 0 | 0 | 618 | 331 | 0 | 187 | 4 | 522 | 2336 |
| % Cars | 0 | 100 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 100 | 100 | 0 | 100 | 100 | 100 | 100 |
| Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



# McFarland Johnson Inc.

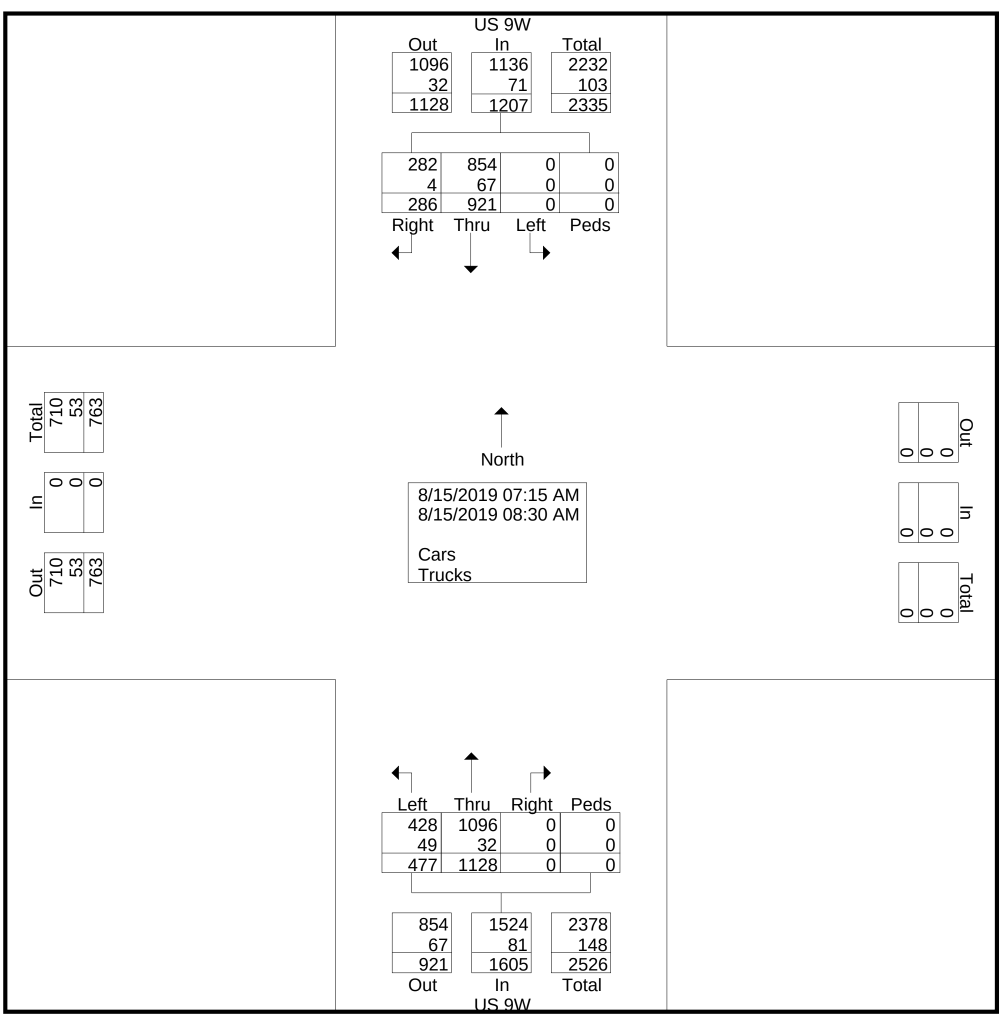
2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NSO
Performed via Count Board

File Name : 9w on-ramp - am
Site Code : 08152019
Start Date : 8/15/2019
Page No : 1

Groups Printed- Cars - Trucks

| | US 9W From North | | | | | US 9W From South | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:15 AM | 44 | 143 | 0 | 0 | 187 | 0 | 219 | 87 | 0 | 306 | 493 |
| 07:30 AM | 54 | 169 | 0 | 0 | 223 | 0 | 209 | 87 | 0 | 296 | 519 |
| 07:45 AM | 55 | 156 | 0 | 0 | 211 | 0 | 164 | 81 | 0 | 245 | 456 |
| Total | 153 | 468 | 0 | 0 | 621 | 0 | 592 | 255 | 0 | 847 | 1468 |
| 08:00 AM | 51 | 159 | 0 | 0 | 210 | 0 | 174 | 69 | 0 | 243 | 453 |
| 08:15 AM | 38 | 142 | 0 | 0 | 180 | 0 | 178 | 84 | 0 | 262 | 442 |
| 08:30 AM | 44 | 152 | 0 | 0 | 196 | 0 | 184 | 69 | 0 | 253 | 449 |
| Grand Total | 286 | 921 | 0 | 0 | 1207 | 0 | 1128 | 477 | 0 | 1605 | 2812 |
| Apprch % | 23.7 | 76.3 | 0 | 0 | | 0 | 70.3 | 29.7 | 0 | | |
| Total % | 10.2 | 32.8 | 0 | 0 | 42.9 | 0 | 40.1 | 17 | 0 | 57.1 | |
| Cars | 282 | 854 | 0 | 0 | 1136 | 0 | 1096 | 428 | 0 | 1524 | 2660 |
| % Cars | 98.6 | 92.7 | 0 | 0 | 94.1 | 0 | 97.2 | 89.7 | 0 | 95 | 94.6 |
| Trucks | 4 | 67 | 0 | 0 | 71 | 0 | 32 | 49 | 0 | 81 | 152 |
| % Trucks | 1.4 | 7.3 | 0 | 0 | 5.9 | 0 | 2.8 | 10.3 | 0 | 5 | 5.4 |



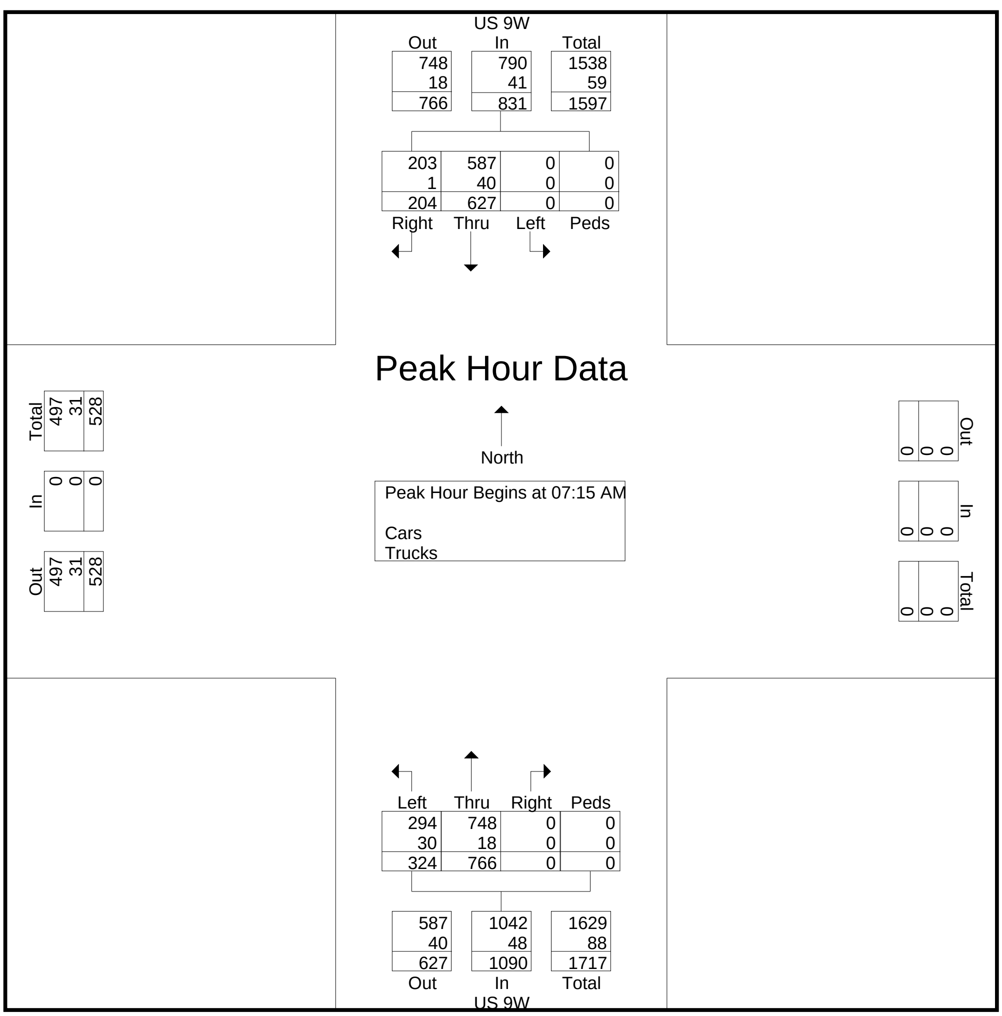
# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424

*Traffic Count Data*

File Name : 9w on-ramp - am
Site Code : 08152019
Start Date : 8/15/2019
Page No : 2

| | US 9W From North | | | | | US 9W From South | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:15 AM to 08:30 AM - Peak 1 of 1 | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | |
| 07:15 AM | 44 | 143 | 0 | 0 | 187 | 0 | **219** | **87** | 0 | **306** | 493 |
| 07:30 AM | 54 | **169** | 0 | 0 | **223** | 0 | 209 | 87 | 0 | 296 | **519** |
| 07:45 AM | **55** | 156 | 0 | 0 | 211 | 0 | 164 | 81 | 0 | 245 | 456 |
| 08:00 AM | 51 | 159 | 0 | 0 | 210 | 0 | 174 | 69 | 0 | 243 | 453 |
| Total Volume | 204 | 627 | 0 | 0 | 831 | 0 | 766 | 324 | 0 | 1090 | 1921 |
| % App. Total | 24.5 | 75.5 | 0 | 0 | | 0 | 70.3 | 29.7 | 0 | | |
| PHF | .927 | .928 | .000 | .000 | .932 | .000 | .874 | .931 | .000 | .891 | .925 |
| Cars | 203 | 587 | 0 | 0 | 790 | 0 | 748 | 294 | 0 | 1042 | 1832 |
| % Cars | 99.5 | 93.6 | 0 | 0 | 95.1 | 0 | 97.7 | 90.7 | 0 | 95.6 | 95.4 |
| Trucks | 1 | 40 | 0 | 0 | 41 | 0 | 18 | 30 | 0 | 48 | 89 |
| % Trucks | 0.5 | 6.4 | 0 | 0 | 4.9 | 0 | 2.3 | 9.3 | 0 | 4.4 | 4.6 |



# McFarland Johnson Inc.

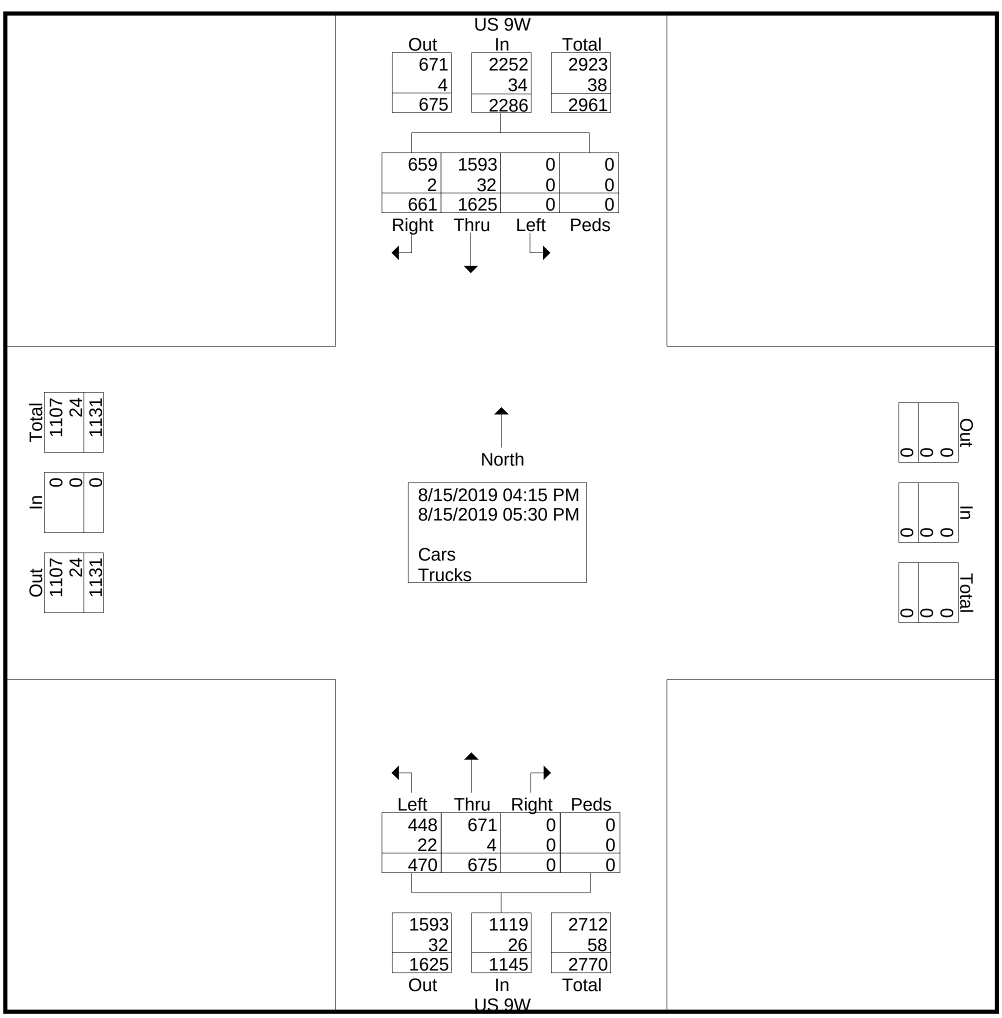
2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NSO
Performed via Count Board

File Name : 9w on-ramp - pm
Site Code : 08152019
Start Date : 8/15/2019
Page No : 1

Groups Printed- Cars - Trucks

| | US 9W From North | | | | | US 9W From South | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:15 PM | 146 | 278 | 0 | 0 | 424 | 0 | 110 | 111 | 0 | 221 | 645 |
| 04:30 PM | 136 | 285 | 0 | 0 | 421 | 0 | 121 | 94 | 0 | 215 | 636 |
| 04:45 PM | 121 | 304 | 0 | 0 | 425 | 0 | 118 | 89 | 0 | 207 | 632 |
| Total | 403 | 867 | 0 | 0 | 1270 | 0 | 349 | 294 | 0 | 643 | 1913 |
| | | | | | | | | | | | |
| 05:00 PM | 129 | 312 | 0 | 0 | 441 | 0 | 109 | 67 | 0 | 176 | 617 |
| 05:15 PM | 71 | 240 | 0 | 0 | 311 | 0 | 108 | 61 | 0 | 169 | 480 |
| 05:30 PM | 58 | 206 | 0 | 0 | 264 | 0 | 109 | 48 | 0 | 157 | 421 |
| Grand Total | 661 | 1625 | 0 | 0 | 2286 | 0 | 675 | 470 | 0 | 1145 | 3431 |
| Apprch % | 28.9 | 71.1 | 0 | 0 | | 0 | 59 | 41 | 0 | | |
| Total % | 19.3 | 47.4 | 0 | 0 | 66.6 | 0 | 19.7 | 13.7 | 0 | 33.4 | |
| Cars | 659 | 1593 | 0 | 0 | 2252 | 0 | 671 | 448 | 0 | 1119 | 3371 |
| % Cars | 99.7 | 98 | 0 | 0 | 98.5 | 0 | 99.4 | 95.3 | 0 | 97.7 | 98.3 |
| Trucks | 2 | 32 | 0 | 0 | 34 | 0 | 4 | 22 | 0 | 26 | 60 |
| % Trucks | 0.3 | 2 | 0 | 0 | 1.5 | 0 | 0.6 | 4.7 | 0 | 2.3 | 1.7 |

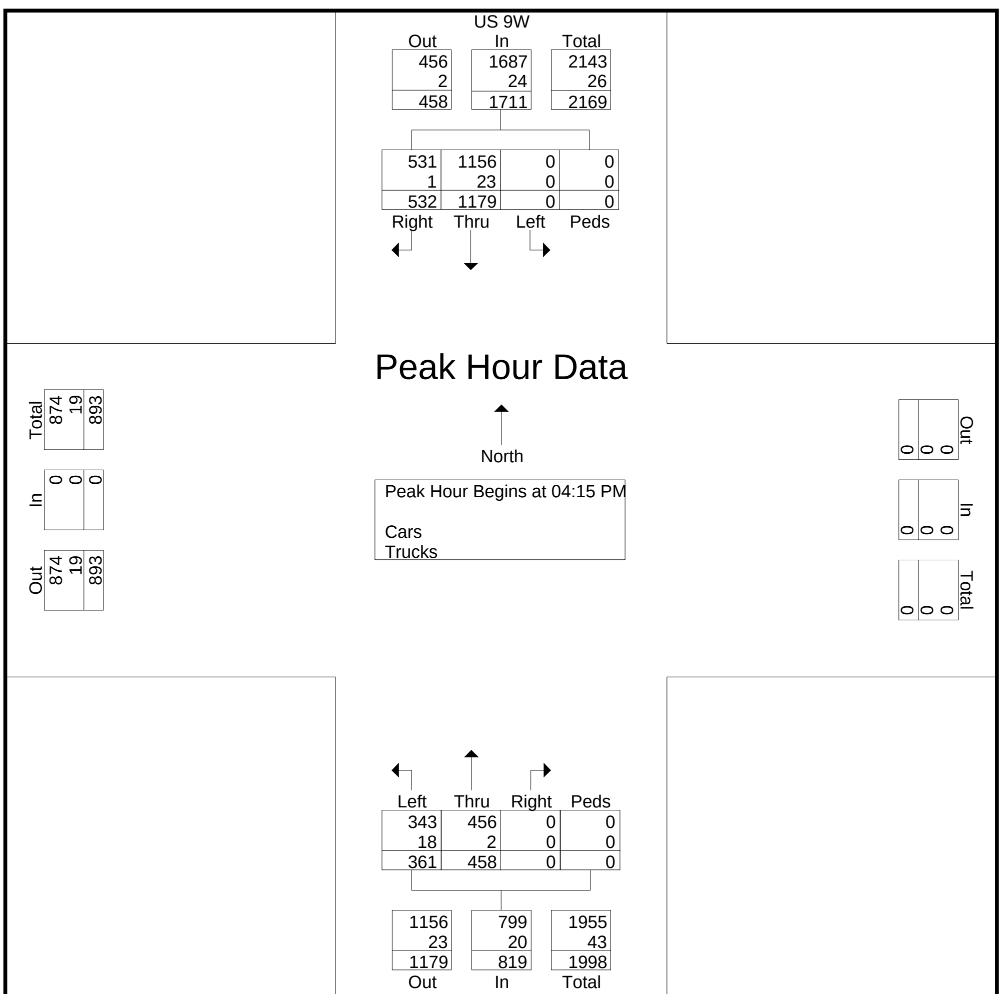


# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : 9w on-ramp - pm
Site Code : 08152019
Start Date : 8/15/2019
Page No : 2

| | US 9W From North | | | | | US 9W From South | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | |
| 04:15 PM | **146** | 278 | 0 | 0 | 424 | 0 | 110 | **111** | 0 | **221** | **645** |
| 04:30 PM | 136 | 285 | 0 | 0 | 421 | 0 | **121** | 94 | 0 | 215 | 636 |
| 04:45 PM | 121 | 304 | 0 | 0 | 425 | 0 | 118 | 89 | 0 | 207 | 632 |
| 05:00 PM | 129 | **312** | 0 | 0 | **441** | 0 | 109 | 67 | 0 | 176 | 617 |
| Total Volume | 532 | 1179 | 0 | 0 | 1711 | 0 | 458 | 361 | 0 | 819 | 2530 |
| % App. Total | 31.1 | 68.9 | 0 | 0 | | 0 | 55.9 | 44.1 | 0 | | |
| PHF | .911 | .945 | .000 | .000 | .970 | .000 | .946 | .813 | .000 | .926 | .981 |
| Cars | 531 | 1156 | 0 | 0 | 1687 | 0 | 456 | 343 | 0 | 799 | 2486 |
| % Cars | 99.8 | 98.0 | 0 | 0 | 98.6 | 0 | 99.6 | 95.0 | 0 | 97.6 | 98.3 |
| Trucks | 1 | 23 | 0 | 0 | 24 | 0 | 2 | 18 | 0 | 20 | 44 |
| % Trucks | 0.2 | 2.0 | 0 | 0 | 1.4 | 0 | 0.4 | 5.0 | 0 | 2.4 | 1.7 |

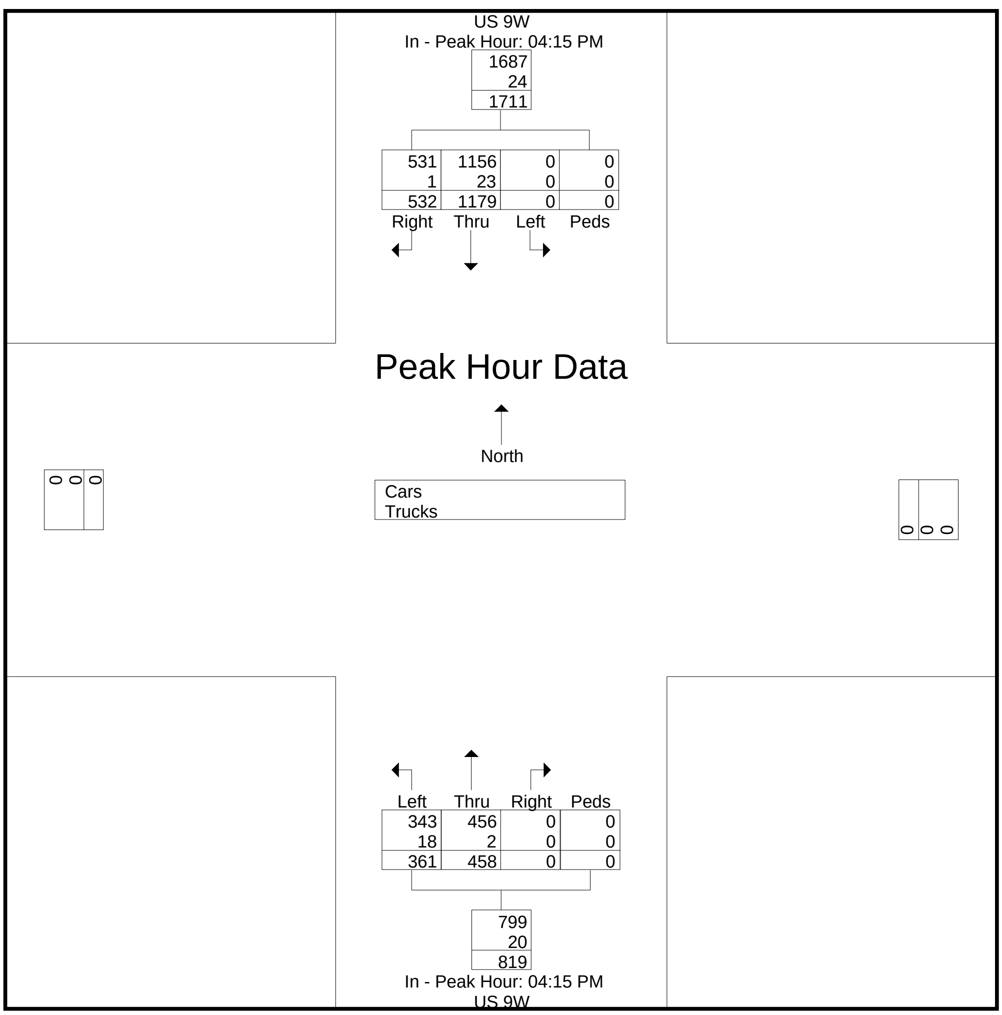


# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : 9w on-ramp - pm
Site Code : 08152019
Start Date : 8/15/2019
Page No : 3

| | US 9W From North | | | | | US 9W From South | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | |
| | 04:15 PM | | | | | 04:15 PM | | | | | |
| +0 mins. | **146** | 278 | 0 | 0 | 424 | 0 | 110 | **111** | 0 | **221** | |
| +15 mins. | 136 | 285 | 0 | 0 | 421 | 0 | **121** | 94 | 0 | 215 | |
| +30 mins. | 121 | 304 | 0 | 0 | 425 | 0 | 118 | 89 | 0 | 207 | |
| +45 mins. | 129 | **312** | 0 | 0 | **441** | 0 | 109 | 67 | 0 | 176 | |
| Total Volume | 532 | 1179 | 0 | 0 | 1711 | 0 | 458 | 361 | 0 | 819 | |
| % App. Total | 31.1 | 68.9 | 0 | 0 | | 0 | 55.9 | 44.1 | 0 | | |
| PHF | .911 | .945 | .000 | .000 | .970 | .000 | .946 | .813 | .000 | .926 | |
| Cars | 531 | 1156 | 0 | 0 | 1687 | 0 | 456 | 343 | 0 | 799 | |
| % Cars | 99.8 | 98 | 0 | 0 | 98.6 | 0 | 99.6 | 95 | 0 | 97.6 | |
| Trucks | 1 | 23 | 0 | 0 | 24 | 0 | 2 | 18 | 0 | 20 | |
| % Trucks | 0.2 | 2 | 0 | 0 | 1.4 | 0 | 0.4 | 5 | 0 | 2.4 | |



# McFarland Johnson Inc.

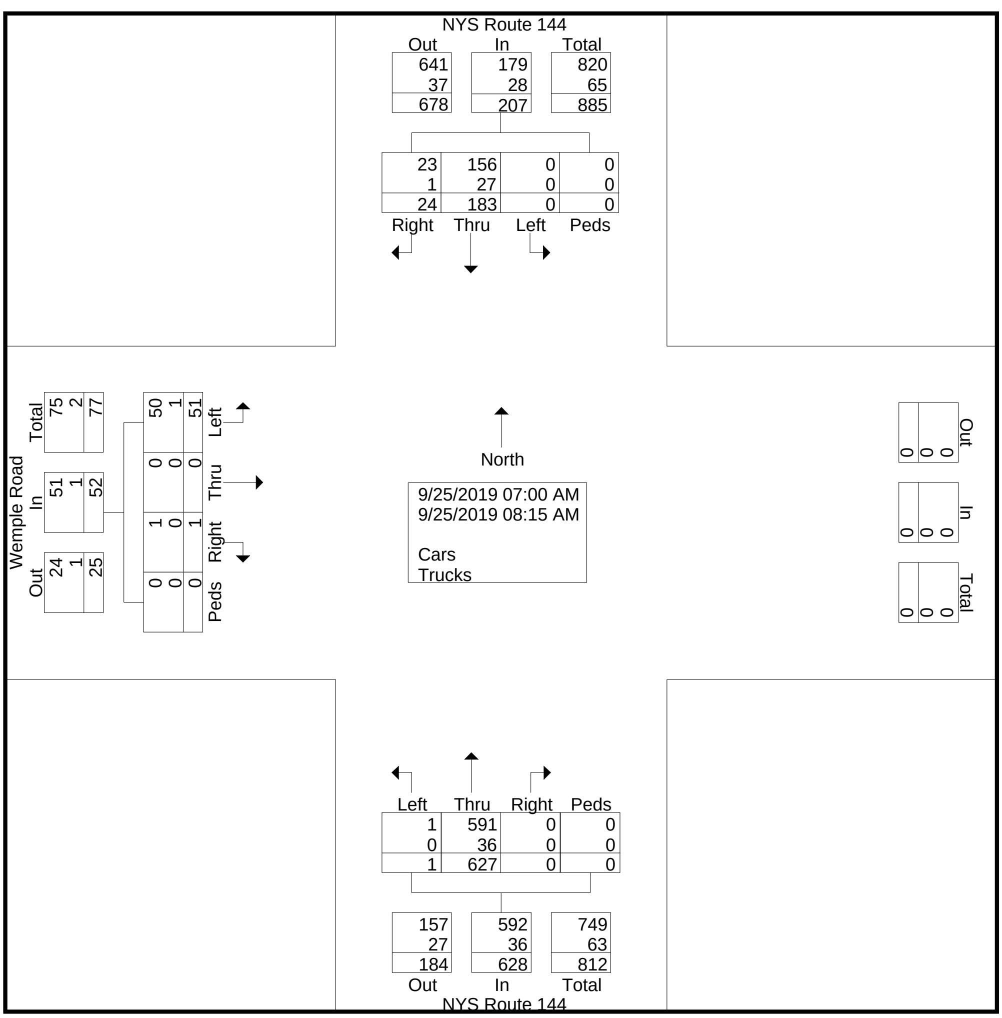
2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NSO
Performed via Count Board

File Name : North Wemple Road - AM
Site Code : 1843700_
Start Date : 9/25/2019
Page No : 1

Groups Printed- Cars - Trucks

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 3 | 30 | 0 | 0 | 33 | 0 | 95 | 1 | 0 | 96 | 1 | 0 | 6 | 0 | 7 | 136 |
| 07:15 AM | 2 | 25 | 0 | 0 | 27 | 0 | 116 | 0 | 0 | 116 | 0 | 0 | 7 | 0 | 7 | 150 |
| 07:30 AM | 4 | 36 | 0 | 0 | 40 | 0 | 138 | 0 | 0 | 138 | 0 | 0 | 15 | 0 | 15 | 193 |
| 07:45 AM | 9 | 39 | 0 | 0 | 48 | 0 | 107 | 0 | 0 | 107 | 0 | 0 | 10 | 0 | 10 | 165 |
| Total | 18 | 130 | 0 | 0 | 148 | 0 | 456 | 1 | 0 | 457 | 1 | 0 | 38 | 0 | 39 | 644 |
| | | | | | | | | | | | | | | | | |
| 08:00 AM | 1 | 21 | 0 | 0 | 22 | 0 | 89 | 0 | 0 | 89 | 0 | 0 | 7 | 0 | 7 | 118 |
| 08:15 AM | 5 | 32 | 0 | 0 | 37 | 0 | 82 | 0 | 0 | 82 | 0 | 0 | 6 | 0 | 6 | 125 |
| Grand Total | 24 | 183 | 0 | 0 | 207 | 0 | 627 | 1 | 0 | 628 | 1 | 0 | 51 | 0 | 52 | 887 |
| Apprch % | 11.6 | 88.4 | 0 | 0 | | 0 | 99.8 | 0.2 | 0 | | 1.9 | 0 | 98.1 | 0 | | |
| Total % | 2.7 | 20.6 | 0 | 0 | 23.3 | 0 | 70.7 | 0.1 | 0 | 70.8 | 0.1 | 0 | 5.7 | 0 | 5.9 | |
| Cars | 23 | 156 | 0 | 0 | 179 | 0 | 591 | 1 | 0 | 592 | 1 | 0 | 50 | 0 | 51 | 822 |
| % Cars | 95.8 | 85.2 | 0 | 0 | 86.5 | 0 | 94.3 | 100 | 0 | 94.3 | 100 | 0 | 98 | 0 | 98.1 | 92.7 |
| Trucks | 1 | 27 | 0 | 0 | 28 | 0 | 36 | 0 | 0 | 36 | 0 | 0 | 1 | 0 | 1 | 65 |
| % Trucks | 4.2 | 14.8 | 0 | 0 | 13.5 | 0 | 5.7 | 0 | 0 | 5.7 | 0 | 0 | 2 | 0 | 1.9 | 7.3 |

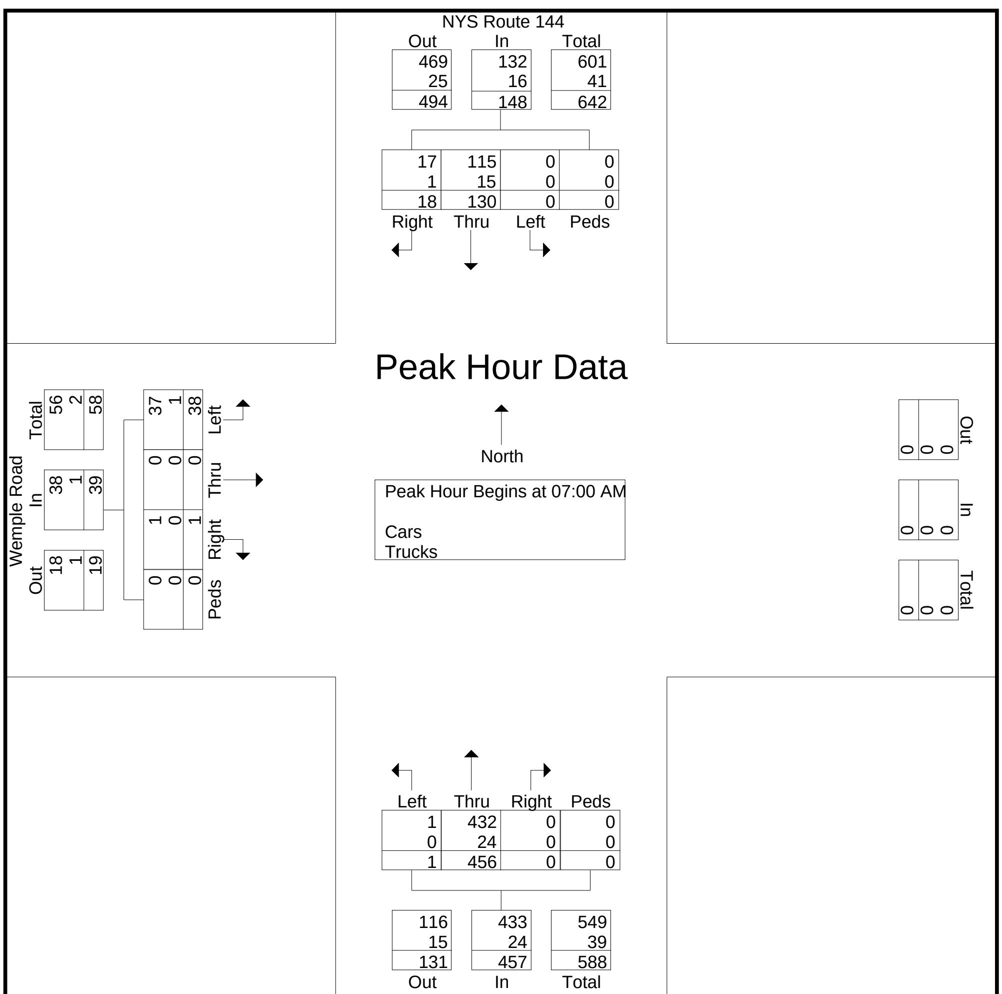


# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : North Wemple Road - AM
Site Code : 1843700_
Start Date : 9/25/2019
Page No : 2

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | |
| 07:00 AM | 3 | 30 | 0 | 0 | 33 | 0 | 95 | **1** | 0 | 96 | **1** | 0 | 6 | 0 | 7 | 136 |
| 07:15 AM | 2 | 25 | 0 | 0 | 27 | 0 | 116 | 0 | 0 | 116 | 0 | 0 | 7 | 0 | 7 | 150 |
| 07:30 AM | 4 | 36 | 0 | 0 | 40 | 0 | **138** | 0 | 0 | **138** | 0 | 0 | **15** | 0 | **15** | **193** |
| 07:45 AM | **9** | **39** | 0 | 0 | **48** | 0 | 107 | 0 | 0 | 107 | 0 | 0 | 10 | 0 | 10 | 165 |
| Total Volume | 18 | 130 | 0 | 0 | 148 | 0 | 456 | 1 | 0 | 457 | 1 | 0 | 38 | 0 | 39 | 644 |
| % App. Total | 12.2 | 87.8 | 0 | 0 | | 0 | 99.8 | 0.2 | 0 | | 2.6 | 0 | 97.4 | 0 | | |
| PHF | .500 | .833 | .000 | .000 | .771 | .000 | .826 | .250 | .000 | .828 | .250 | .000 | .633 | .000 | .650 | .834 |
| Cars | 17 | 115 | 0 | 0 | 132 | 0 | 432 | 1 | 0 | 433 | 1 | 0 | 37 | 0 | 38 | 603 |
| % Cars | 94.4 | 88.5 | 0 | 0 | 89.2 | 0 | 94.7 | 100 | 0 | 94.7 | 100 | 0 | 97.4 | 0 | 97.4 | 93.6 |
| Trucks | 1 | 15 | 0 | 0 | 16 | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 1 | 0 | 1 | 41 |
| % Trucks | 5.6 | 11.5 | 0 | 0 | 10.8 | 0 | 5.3 | 0 | 0 | 5.3 | 0 | 0 | 2.6 | 0 | 2.6 | 6.4 |



# McFarland Johnson Inc.

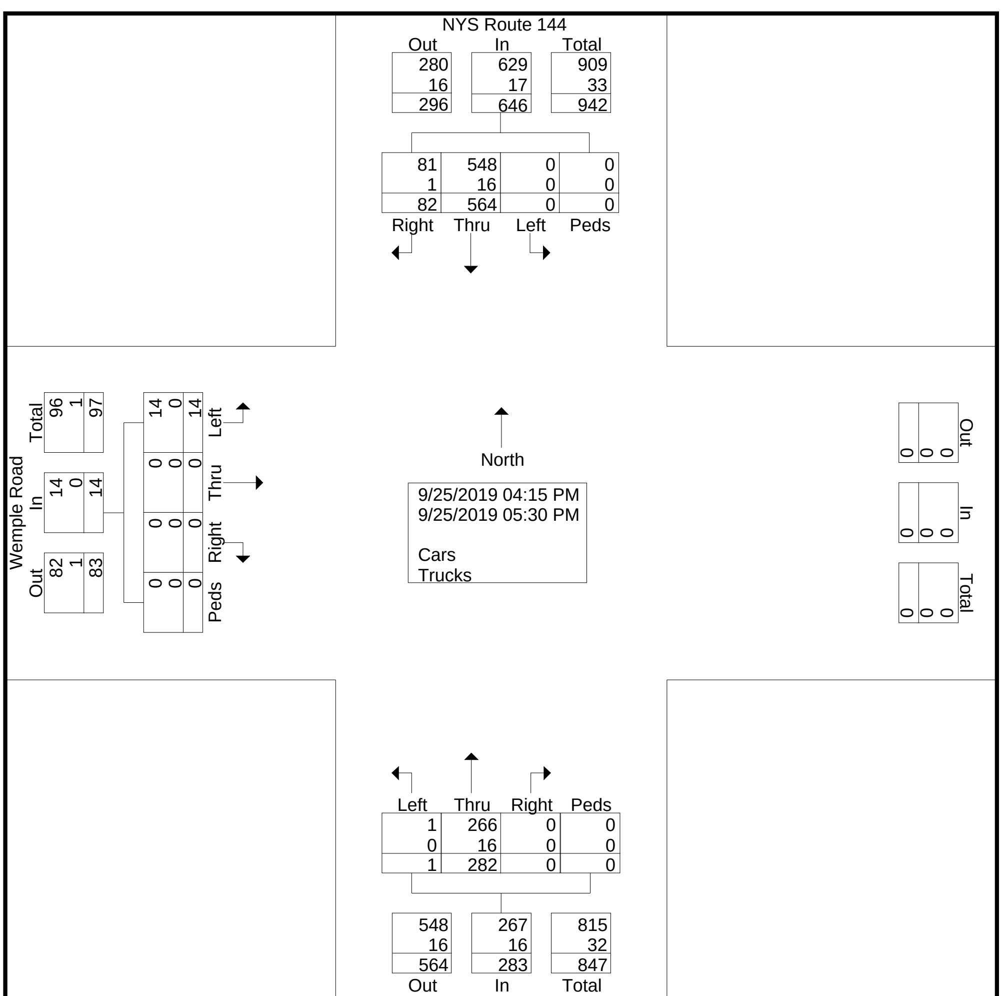
2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NSO
Performed via Count Board

File Name : north wemple road - pm
Site Code : 1843700_
Start Date : 9/25/2019
Page No : 1

Groups Printed- Cars - Trucks

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:15 PM | 15 | 100 | 0 | 0 | 115 | 0 | 42 | 0 | 0 | 42 | 0 | 0 | 1 | 0 | 1 | 158 |
| 04:30 PM | 10 | 83 | 0 | 0 | 93 | 0 | 41 | 0 | 0 | 41 | 0 | 0 | 2 | 0 | 2 | 136 |
| 04:45 PM | 13 | 108 | 0 | 0 | 121 | 0 | 48 | 0 | 0 | 48 | 0 | 0 | 1 | 0 | 1 | 170 |
| Total | 38 | 291 | 0 | 0 | 329 | 0 | 131 | 0 | 0 | 131 | 0 | 0 | 4 | 0 | 4 | 464 |
| | | | | | | | | | | | | | | | | |
| 05:00 PM | 17 | 79 | 0 | 0 | 96 | 0 | 53 | 0 | 0 | 53 | 0 | 0 | 6 | 0 | 6 | 155 |
| 05:15 PM | 11 | 99 | 0 | 0 | 110 | 0 | 42 | 1 | 0 | 43 | 0 | 0 | 1 | 0 | 1 | 154 |
| 05:30 PM | 16 | 95 | 0 | 0 | 111 | 0 | 56 | 0 | 0 | 56 | 0 | 0 | 3 | 0 | 3 | 170 |
| Grand Total | 82 | 564 | 0 | 0 | 646 | 0 | 282 | 1 | 0 | 283 | 0 | 0 | 14 | 0 | 14 | 943 |
| Apprch % | 12.7 | 87.3 | 0 | 0 | | 0 | 99.6 | 0.4 | 0 | | 0 | 0 | 100 | 0 | | |
| Total % | 8.7 | 59.8 | 0 | 0 | 68.5 | 0 | 29.9 | 0.1 | 0 | 30 | 0 | 0 | 1.5 | 0 | 1.5 | |
| Cars | 81 | 548 | 0 | 0 | 629 | 0 | 266 | 1 | 0 | 267 | 0 | 0 | 14 | 0 | 14 | 910 |
| % Cars | 98.8 | 97.2 | 0 | 0 | 97.4 | 0 | 94.3 | 100 | 0 | 94.3 | 0 | 0 | 100 | 0 | 100 | 96.5 |
| Trucks | 1 | 16 | 0 | 0 | 17 | 0 | 16 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 33 |
| % Trucks | 1.2 | 2.8 | 0 | 0 | 2.6 | 0 | 5.7 | 0 | 0 | 5.7 | 0 | 0 | 0 | 0 | 0 | 3.5 |



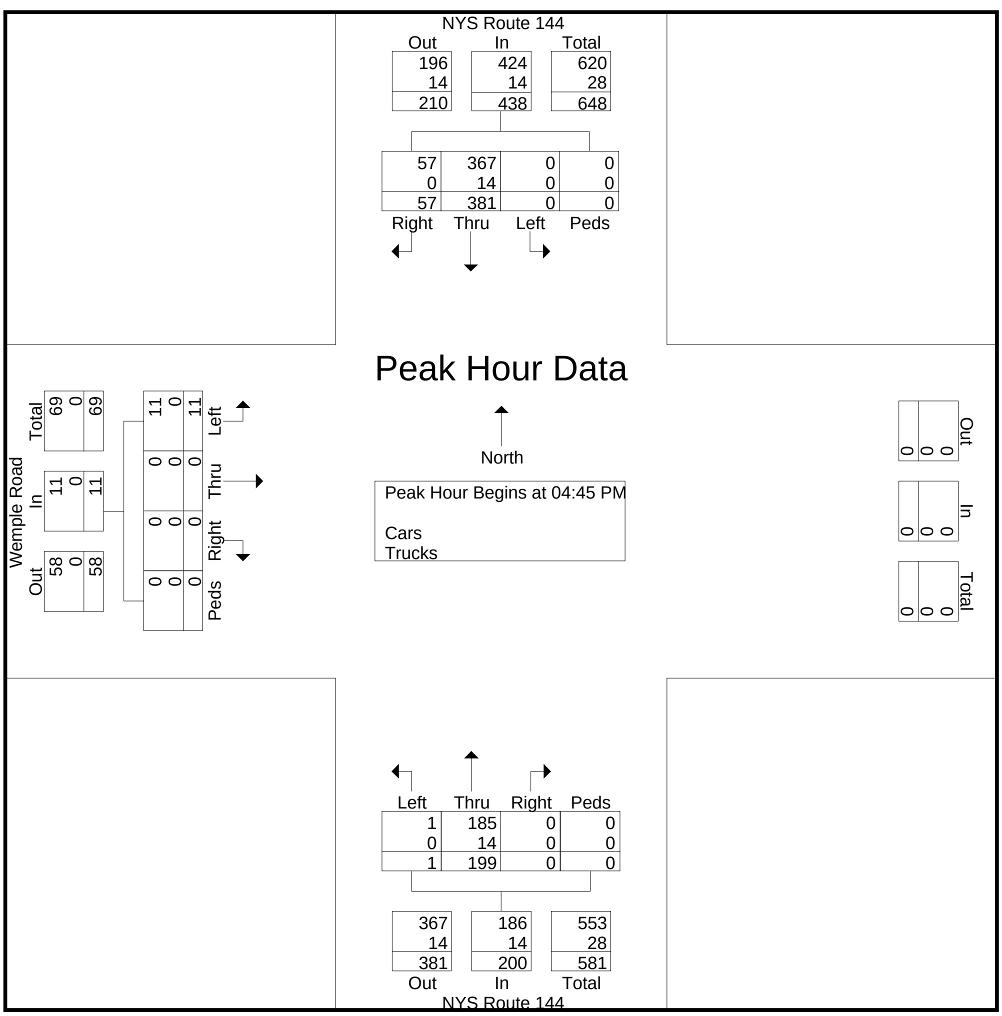
# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424

*Traffic Count Data*

File Name : north wemple road - pm
Site Code : 1843700_
Start Date : 9/25/2019
Page No : 2

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | |
| 04:45 PM | 13 | **108** | 0 | 0 | **121** | 0 | 48 | 0 | 0 | 48 | 0 | 0 | 1 | 0 | 1 | **170** |
| 05:00 PM | **17** | 79 | 0 | 0 | 96 | 0 | 53 | 0 | 0 | 53 | 0 | 0 | **6** | 0 | **6** | 155 |
| 05:15 PM | 11 | 99 | 0 | 0 | 110 | 0 | 42 | **1** | 0 | 43 | 0 | 0 | 1 | 0 | 1 | 154 |
| 05:30 PM | 16 | 95 | 0 | 0 | 111 | 0 | **56** | 0 | 0 | **56** | 0 | 0 | 3 | 0 | 3 | 170 |
| Total Volume | 57 | 381 | 0 | 0 | 438 | 0 | 199 | 1 | 0 | 200 | 0 | 0 | 11 | 0 | 11 | 649 |
| % App. Total | 13 | 87 | 0 | 0 | | 0 | 99.5 | 0.5 | 0 | | 0 | 0 | 100 | 0 | | |
| PHF | .838 | .882 | .000 | .000 | .905 | .000 | .888 | .250 | .000 | .893 | .000 | .000 | .458 | .000 | .458 | .954 |
| Cars | 57 | 367 | 0 | 0 | 424 | 0 | 185 | 1 | 0 | 186 | 0 | 0 | 11 | 0 | 11 | 621 |
| % Cars | 100 | 96.3 | 0 | 0 | 96.8 | 0 | 93.0 | 100 | 0 | 93.0 | 0 | 0 | 100 | 0 | 100 | 95.7 |
| Trucks | 0 | 14 | 0 | 0 | 14 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 28 |
| % Trucks | 0 | 3.7 | 0 | 0 | 3.2 | 0 | 7.0 | 0 | 0 | 7.0 | 0 | 0 | 0 | 0 | 0 | 4.3 |



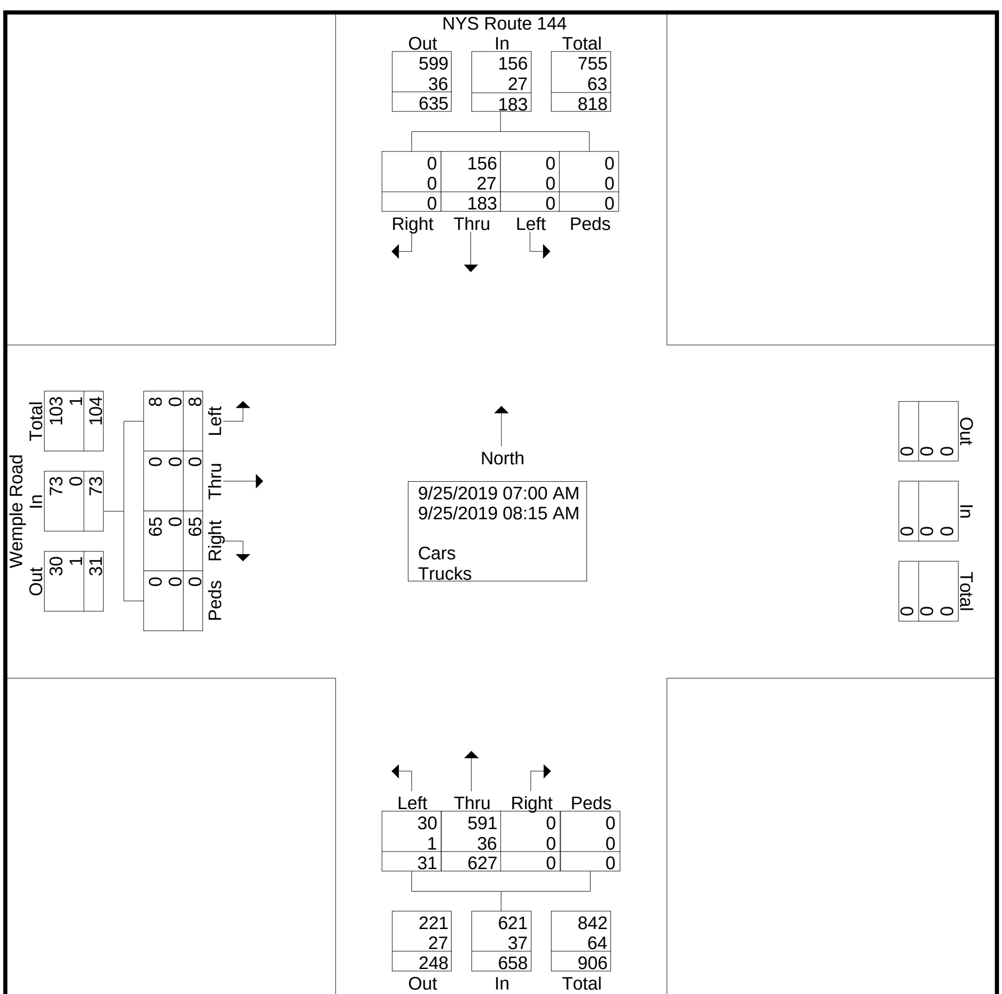
# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

| | |
|---|---|
| Counts by McFarland Johnson | File Name : South Wemple Road - AM |
| Counted by NSO | Site Code : 1843700_ |
| Performed via Count Board | Start Date : 9/25/2019 |
| | Page No : 1 |

Groups Printed- Cars - Trucks

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 07:00 AM | 0 | 30 | 0 | 0 | 30 | 0 | 95 | 0 | 0 | 95 | 9 | 0 | 1 | 0 | 10 | 135 |
| 07:15 AM | 0 | 25 | 0 | 0 | 25 | 0 | 116 | 4 | 0 | 120 | 11 | 0 | 4 | 0 | 15 | 160 |
| 07:30 AM | 0 | 36 | 0 | 0 | 36 | 0 | 138 | 12 | 0 | 150 | 9 | 0 | 1 | 0 | 10 | 196 |
| 07:45 AM | 0 | 39 | 0 | 0 | 39 | 0 | 107 | 7 | 0 | 114 | 15 | 0 | 0 | 0 | 15 | 168 |
| Total | 0 | 130 | 0 | 0 | 130 | 0 | 456 | 23 | 0 | 479 | 44 | 0 | 6 | 0 | 50 | 659 |
| | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 21 | 0 | 0 | 21 | 0 | 89 | 5 | 0 | 94 | 11 | 0 | 1 | 0 | 12 | 127 |
| 08:15 AM | 0 | 32 | 0 | 0 | 32 | 0 | 82 | 3 | 0 | 85 | 10 | 0 | 1 | 0 | 11 | 128 |
| Grand Total | 0 | 183 | 0 | 0 | 183 | 0 | 627 | 31 | 0 | 658 | 65 | 0 | 8 | 0 | 73 | 914 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 95.3 | 4.7 | 0 | | 89 | 0 | 11 | 0 | | |
| Total % | 0 | 20 | 0 | 0 | 20 | 0 | 68.6 | 3.4 | 0 | 72 | 7.1 | 0 | 0.9 | 0 | 8 | |
| Cars | 0 | 156 | 0 | 0 | 156 | 0 | 591 | 30 | 0 | 621 | 65 | 0 | 8 | 0 | 73 | 850 |
| % Cars | 0 | 85.2 | 0 | 0 | 85.2 | 0 | 94.3 | 96.8 | 0 | 94.4 | 100 | 0 | 100 | 0 | 100 | 93 |
| Trucks | 0 | 27 | 0 | 0 | 27 | 0 | 36 | 1 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 64 |
| % Trucks | 0 | 14.8 | 0 | 0 | 14.8 | 0 | 5.7 | 3.2 | 0 | 5.6 | 0 | 0 | 0 | 0 | 0 | 7 |

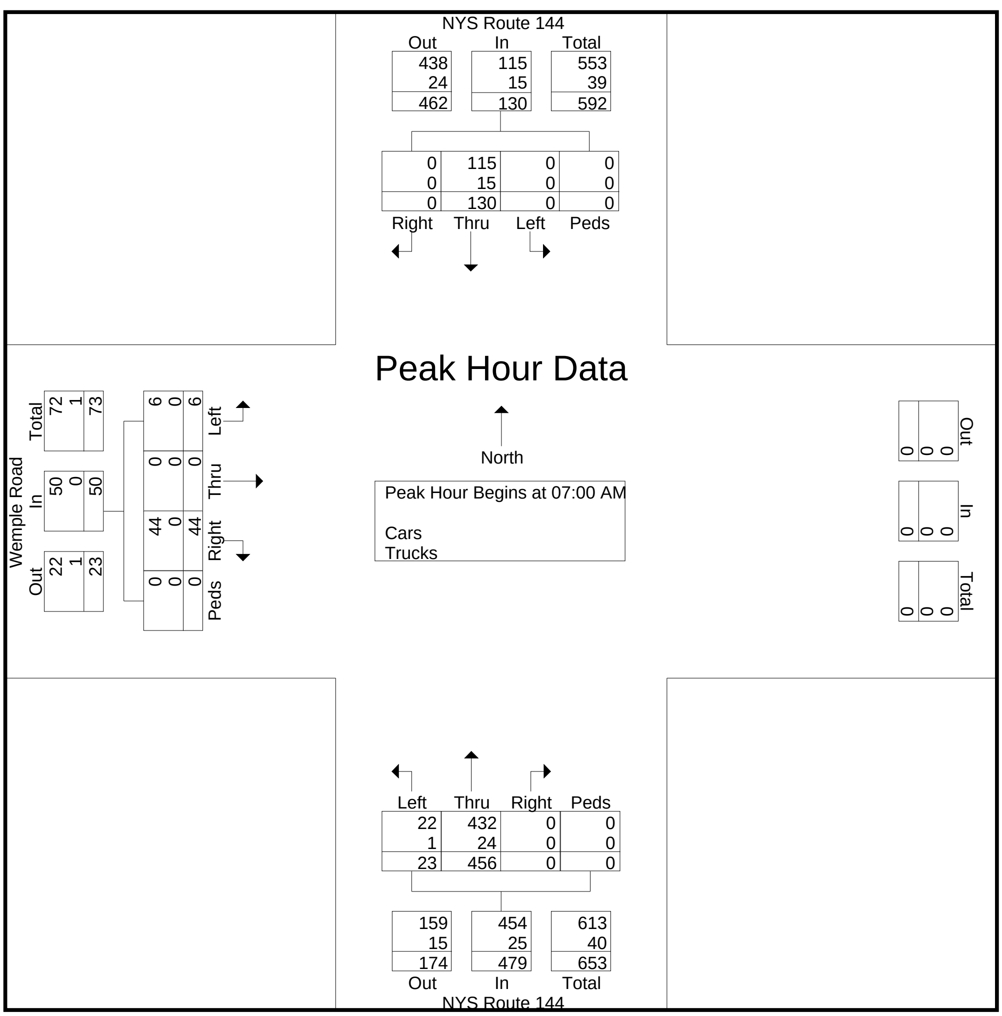


# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : South Wemple Road - AM
Site Code : 1843700_
Start Date : 9/25/2019
Page No : 2

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 30 | 0 | 0 | 30 | 0 | 95 | 0 | 0 | 95 | 9 | 0 | 1 | 0 | 10 | 135 |
| 07:15 AM | 0 | 25 | 0 | 0 | 25 | 0 | 116 | 4 | 0 | 120 | 11 | 0 | **4** | 0 | **15** | 160 |
| 07:30 AM | 0 | 36 | 0 | 0 | 36 | 0 | **138** | **12** | 0 | **150** | 9 | 0 | 1 | 0 | 10 | **196** |
| 07:45 AM | 0 | **39** | 0 | 0 | **39** | 0 | 107 | 7 | 0 | 114 | **15** | 0 | 0 | 0 | 15 | 168 |
| Total Volume | 0 | 130 | 0 | 0 | 130 | 0 | 456 | 23 | 0 | 479 | 44 | 0 | 6 | 0 | 50 | 659 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 95.2 | 4.8 | 0 | | 88 | 0 | 12 | 0 | | |
| PHF | .000 | .833 | .000 | .000 | .833 | .000 | .826 | .479 | .000 | .798 | .733 | .000 | .375 | .000 | .833 | .841 |
| Cars | 0 | 115 | 0 | 0 | 115 | 0 | 432 | 22 | 0 | 454 | 44 | 0 | 6 | 0 | 50 | 619 |
| % Cars | 0 | 88.5 | 0 | 0 | 88.5 | 0 | 94.7 | 95.7 | 0 | 94.8 | 100 | 0 | 100 | 0 | 100 | 93.9 |
| Trucks | 0 | 15 | 0 | 0 | 15 | 0 | 24 | 1 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 40 |
| % Trucks | 0 | 11.5 | 0 | 0 | 11.5 | 0 | 5.3 | 4.3 | 0 | 5.2 | 0 | 0 | 0 | 0 | 0 | 6.1 |



# McFarland Johnson Inc.

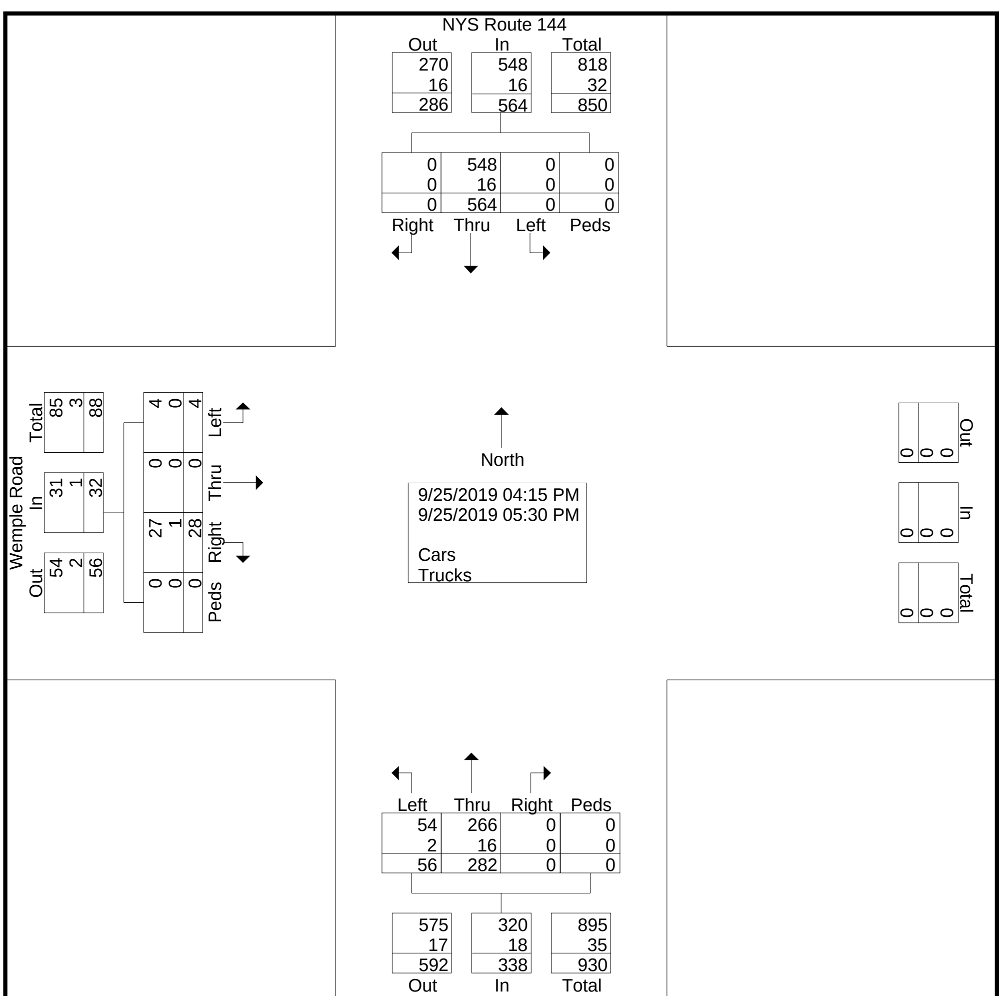
2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NSO
Performed via Count Board

File Name : south wemple road - pm
Site Code : 1843700_
Start Date : 9/25/2019


Groups Printed- Cars - Trucks

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 04:15 PM | 0 | 100 | 0 | 0 | 100 | 0 | 42 | 8 | 0 | 50 | 7 | 0 | 0 | 0 | 7 | 157 |
| 04:30 PM | 0 | 83 | 0 | 0 | 83 | 0 | 41 | 14 | 0 | 55 | 6 | 0 | 1 | 0 | 7 | 145 |
| 04:45 PM | 0 | 108 | 0 | 0 | 108 | 0 | 48 | 8 | 0 | 56 | 3 | 0 | 3 | 0 | 6 | 170 |
| Total | 0 | 291 | 0 | 0 | 291 | 0 | 131 | 30 | 0 | 161 | 16 | 0 | 4 | 0 | 20 | 472 |
| | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 79 | 0 | 0 | 79 | 0 | 53 | 9 | 0 | 62 | 4 | 0 | 0 | 0 | 4 | 145 |
| 05:15 PM | 0 | 99 | 0 | 0 | 99 | 0 | 42 | 6 | 0 | 48 | 4 | 0 | 0 | 0 | 4 | 151 |
| 05:30 PM | 0 | 95 | 0 | 0 | 95 | 0 | 56 | 11 | 0 | 67 | 4 | 0 | 0 | 0 | 4 | 166 |
| Grand Total | 0 | 564 | 0 | 0 | 564 | 0 | 282 | 56 | 0 | 338 | 28 | 0 | 4 | 0 | 32 | 934 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 83.4 | 16.6 | 0 | | 87.5 | 0 | 12.5 | 0 | | |
| Total % | 0 | 60.4 | 0 | 0 | 60.4 | 0 | 30.2 | 6 | 0 | 36.2 | 3 | 0 | 0.4 | 0 | 3.4 | |
| Cars | 0 | 548 | 0 | 0 | 548 | 0 | 266 | 54 | 0 | 320 | 27 | 0 | 4 | 0 | 31 | 899 |
| % Cars | 0 | 97.2 | 0 | 0 | 97.2 | 0 | 94.3 | 96.4 | 0 | 94.7 | 96.4 | 0 | 100 | 0 | 96.9 | 96.3 |
| Trucks | 0 | 16 | 0 | 0 | 16 | 0 | 16 | 2 | 0 | 18 | 1 | 0 | 0 | 0 | 1 | 35 |
| % Trucks | 0 | 2.8 | 0 | 0 | 2.8 | 0 | 5.7 | 3.6 | 0 | 5.3 | 3.6 | 0 | 0 | 0 | 3.1 | 3.7 |

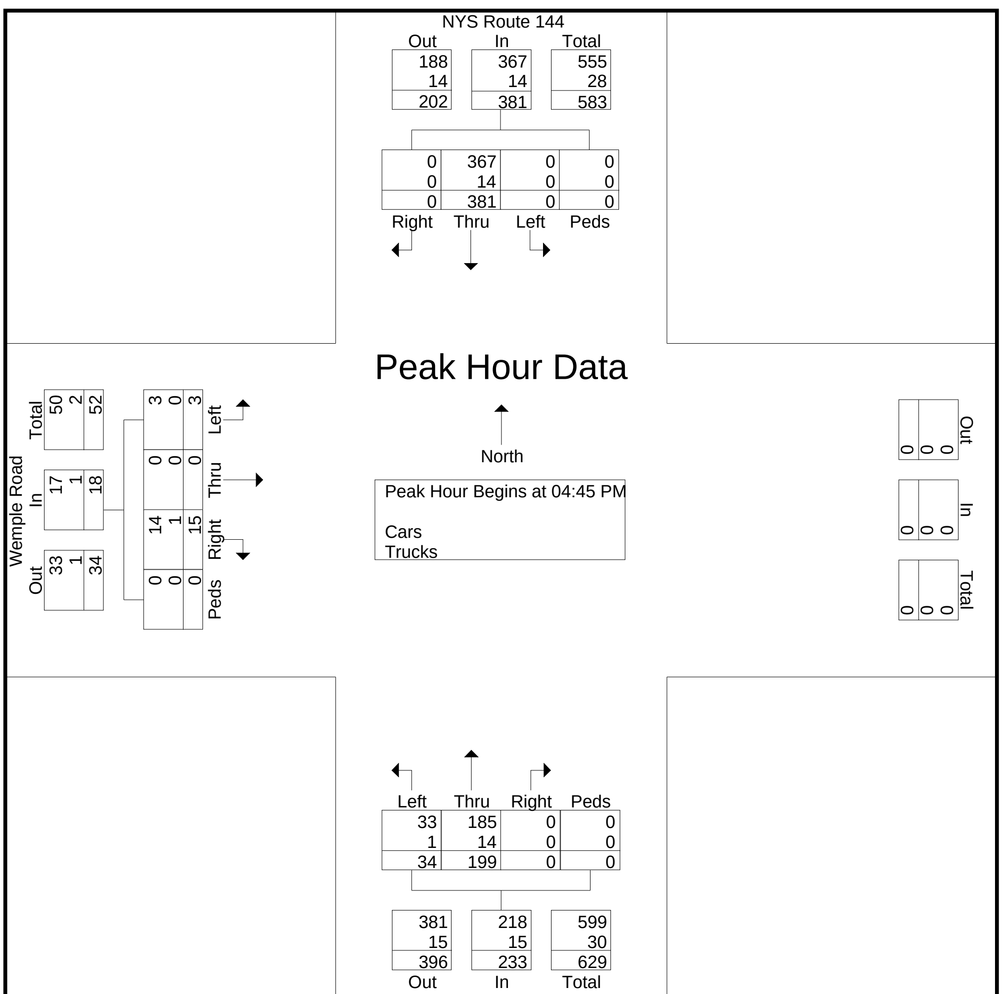


# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY 14424
*Traffic Count Data*

File Name : south wemple road - pm
Site Code : 1843700_
Start Date : 9/25/2019
Page No : 2

| | NYS Route 144 From North | | | | | NYS Route 144 From South | | | | | Wemple Road From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | **108** | 0 | 0 | **108** | 0 | 48 | 8 | 0 | 56 | 3 | 0 | **3** | 0 | **6** | **170** |
| 05:00 PM | 0 | 79 | 0 | 0 | 79 | 0 | 53 | 9 | 0 | 62 | **4** | 0 | 0 | 0 | 4 | 145 |
| 05:15 PM | 0 | 99 | 0 | 0 | 99 | 0 | 42 | 6 | 0 | 48 | 4 | 0 | 0 | 0 | 4 | 151 |
| 05:30 PM | 0 | 95 | 0 | 0 | 95 | 0 | **56** | **11** | 0 | **67** | 4 | 0 | 0 | 0 | 4 | 166 |
| Total Volume | 0 | 381 | 0 | 0 | 381 | 0 | 199 | 34 | 0 | 233 | 15 | 0 | 3 | 0 | 18 | 632 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 85.4 | 14.6 | 0 | | 83.3 | 0 | 16.7 | 0 | | |
| PHF | .000 | .882 | .000 | .000 | .882 | .000 | .888 | .773 | .000 | .869 | .938 | .000 | .250 | .000 | .750 | .929 |
| Cars | 0 | 367 | 0 | 0 | 367 | 0 | 185 | 33 | 0 | 218 | 14 | 0 | 3 | 0 | 17 | 602 |
| % Cars | 0 | 96.3 | 0 | 0 | 96.3 | 0 | 93.0 | 97.1 | 0 | 93.6 | 93.3 | 0 | 100 | 0 | 94.4 | 95.3 |
| Trucks | 0 | 14 | 0 | 0 | 14 | 0 | 14 | 1 | 0 | 15 | 1 | 0 | 0 | 0 | 1 | 30 |
| % Trucks | 0 | 3.7 | 0 | 0 | 3.7 | 0 | 7.0 | 2.9 | 0 | 6.4 | 6.7 | 0 | 0 | 0 | 5.6 | 4.7 |



# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/17/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | **3** | **143** | **36** | 2 | **11** | 0 | 0 | **2** | **5** | 0 | 0 | 0 | 0 | **202** |
| 18:00 | 2 | 97 | 18 | 1 | 5 | **2** | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 127 |
| 19:00 | 3 | 91 | 23 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 |
| 20:00 | 2 | 59 | 14 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 82 |
| 21:00 | 0 | 36 | 9 | 4 | 6 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 57 |
| 22:00 | 0 | 32 | 8 | **5** | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 53 |
| 23:00 | 0 | 18 | 4 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 25 |
| Day Total | 10 | 476 | 112 | 15 | 36 | 2 | 0 | 3 | 12 | 0 | 0 | 0 | 0 | 666 |
| Percent | 1.5% | 71.5% | 16.8% | 2.3% | 5.4% | 0.3% | 0.0% | 0.5% | 1.8% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak Vol. | | | | | | | | | | | | | | |
| PM Peak | 17:00 | 17:00 | 17:00 | 22:00 | 17:00 | 18:00 | | 17:00 | 17:00 | | | | | 17:00 |
| Vol. | 3 | 143 | 36 | 5 | 11 | 2 | | 2 | 5 | | | | | 202 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/18/19 | 0 | 18 | 5 | 3 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 31 |
| 01:00 | 1 | 8 | 4 | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 19 |
| 02:00 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| 03:00 | 0 | 12 | 4 | 1 | 1 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 29 |
| 04:00 | 0 | 11 | 7 | 3 | 3 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 28 |
| 05:00 | 0 | 46 | 32 | 5 | 8 | 2 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 103 |
| 06:00 | 4 | 118 | 56 | 3 | 13 | 3 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 211 |
| 07:00 | 1 | **344** | **64** | **13** | 24 | 1 | **5** | **4** | 9 | 0 | 0 | 0 | 0 | **465** |
| 08:00 | **5** | 250 | 64 | 6 | 18 | **6** | 2 | 1 | **13** | 0 | 0 | 0 | 0 | 365 |
| 09:00 | 2 | 115 | 38 | 10 | **28** | 2 | 2 | 3 | 12 | 0 | 0 | 0 | 0 | 212 |
| 10:00 | 1 | 96 | 34 | 7 | 24 | 1 | 2 | 1 | 9 | **2** | 0 | 0 | 0 | 177 |
| 11:00 | 0 | 101 | 36 | 4 | 23 | 1 | 2 | 4 | 8 | 0 | 0 | 0 | 0 | 179 |
| 12 PM | 0 | 91 | 42 | 5 | 15 | 2 | 2 | **1** | **11** | 0 | 0 | 0 | 0 | 169 |
| 13:00 | **2** | 76 | 34 | **9** | **26** | 2 | **4** | 1 | 3 | 0 | 0 | 0 | 0 | 157 |
| 14:00 | 1 | 109 | **50** | 4 | 12 | **6** | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 191 |
| 15:00 | 1 | 116 | 34 | 6 | 11 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 177 |
| 16:00 | 1 | **146** | 29 | 1 | 12 | 0 | 0 | 1 | 3 | **1** | 0 | 0 | 0 | **194** |
| 17:00 | 2 | 116 | 32 | 0 | 8 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 163 |
| 18:00 | 1 | 74 | 28 | 3 | 6 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 115 |
| 19:00 | 1 | 65 | 15 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| 20:00 | 1 | 50 | 10 | 1 | 10 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 74 |
| 21:00 | 0 | 44 | 10 | 3 | 7 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 68 |
| 22:00 | 0 | 30 | 8 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 45 |
| 23:00 | 0 | 17 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 21 |
| Day Total | 24 | 2061 | 641 | 93 | 265 | 26 | 26 | 22 | 134 | 3 | 0 | 0 | 0 | 3295 |
| Percent | 0.7% | 62.5% | 19.5% | 2.8% | 8.0% | 0.8% | 0.8% | 0.7% | 4.1% | 0.1% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 08:00 | 07:00 | 07:00 | 07:00 | 09:00 | 08:00 | 07:00 | 07:00 | 08:00 | 10:00 | | | | 07:00 |
| Vol. | 5 | 344 | 64 | 13 | 28 | 6 | 5 | 4 | 13 | 2 | | | | 465 |
| PM Peak | 13:00 | 16:00 | 14:00 | 13:00 | 13:00 | 14:00 | 13:00 | 12:00 | 12:00 | 16:00 | | | | 16:00 |
| Vol. | 2 | 146 | 50 | 9 | 26 | 6 | 4 | 1 | 11 | 1 | | | | 194 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/19/19 | 0 | 15 | 1 | 1 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 21 |
| 01:00 | 0 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 8 |
| 02:00 | 0 | 4 | 1 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 10 |
| 03:00 | 0 | 13 | 4 | 1 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 0 | 9 | 6 | 2 | 7 | 2 | 3 | 1 | 6 | 1 | 0 | 0 | 1 | 38 |
| 05:00 | 1 | 44 | 28 | 6 | 8 | 0 | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 96 |
| 06:00 | **5** | 104 | 51 | 2 | 9 | 0 | 0 | 1 | 10 | 1 | 0 | 0 | **2** | 185 |
| 07:00 | 1 | **368** | 57 | 2 | 16 | 0 | 1 | 2 | 4 | 0 | 0 | 0 | 1 | **452** |
| 08:00 | 1 | 245 | **61** | **12** | 15 | **4** | **8** | 0 | 7 | **2** | 0 | 0 | 0 | 355 |
| 09:00 | 0 | 112 | 24 | 8 | 16 | 1 | 0 | 1 | 10 | 0 | 0 | 0 | 1 | 173 |
| 10:00 | 2 | 82 | 30 | 5 | **24** | 2 | 1 | **3** | 6 | 1 | 0 | 0 | 0 | 156 |
| 11:00 | 1 | 92 | 33 | 7 | 12 | 3 | 4 | 2 | **11** | 1 | 0 | 0 | 0 | 166 |
| 12 PM | 0 | 104 | 28 | **8** | 7 | 2 | **3** | 2 | **13** | 0 | 0 | 0 | 0 | 167 |
| 13:00 | 0 | 102 | **45** | 7 | **22** | 3 | 2 | **4** | 4 | **1** | 0 | 0 | 0 | 190 |
| 14:00 | **6** | 117 | 35 | 6 | 8 | 1 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 183 |
| 15:00 | 2 | 126 | 33 | 1 | 9 | **4** | 2 | 3 | 7 | 0 | 0 | 0 | 0 | 187 |
| 16:00 | 0 | 145 | 25 | 2 | 16 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 194 |
| 17:00 | 3 | **151** | 32 | 2 | 6 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | **199** |
| 18:00 | 2 | 108 | 31 | 1 | 8 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 153 |
| 19:00 | 1 | 64 | 17 | 0 | 7 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 93 |
| 20:00 | 0 | 59 | 11 | 1 | 7 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 82 |
| 21:00 | 1 | 34 | 7 | 2 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 49 |
| 22:00 | 0 | 24 | 7 | 1 | 3 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 38 |
| 23:00 | 0 | 13 | 4 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| Day Total | 26 | 2137 | 572 | 78 | 213 | 23 | 30 | 24 | 121 | 9 | 0 | 0 | 6 | 3239 |
| Percent | 0.8% | 66.0% | 17.7% | 2.4% | 6.6% | 0.7% | 0.9% | 0.7% | 3.7% | 0.3% | 0.0% | 0.0% | 0.2% | |
| AM Peak | 06:00 | 07:00 | 08:00 | 08:00 | 10:00 | 08:00 | 08:00 | 10:00 | 11:00 | 08:00 | | | 06:00 | 07:00 |
| Vol. | 5 | 368 | 61 | 12 | 24 | 4 | 8 | 3 | 11 | 2 | | | 2 | 452 |
| PM Peak | 14:00 | 17:00 | 13:00 | 12:00 | 13:00 | 15:00 | 12:00 | 13:00 | 12:00 | 13:00 | | | | 17:00 |
| Vol. | 6 | 151 | 45 | 8 | 22 | 4 | 3 | 4 | 13 | 1 | | | | 199 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/20/19 | 0 | 18 | 6 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 28 |
| 01:00 | 0 | 7 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 02:00 | 0 | 5 | 2 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 14 |
| 03:00 | 0 | 8 | 3 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 16 |
| 04:00 | 0 | 9 | 7 | 1 | 1 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 26 |
| 05:00 | 0 | 39 | 34 | 2 | 8 | 2 | 2 | 0 | 5 | **1** | 0 | 0 | 0 | 93 |
| 06:00 | 0 | 116 | 40 | 5 | 13 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 0 | 184 |
| 07:00 | **2** | **366** | **59** | 6 | 18 | 1 | **6** | **4** | 7 | 0 | 0 | 0 | **1** | **470** |
| 08:00 | 2 | 236 | 51 | 11 | **23** | 1 | 4 | 1 | 11 | 0 | 0 | 0 | 0 | 340 |
| 09:00 | 0 | 126 | 42 | **14** | 15 | 1 | 1 | 2 | 6 | 0 | 0 | 0 | 0 | 207 |
| 10:00 | 2 | 93 | 35 | 7 | 19 | **4** | 1 | 1 | **20** | 0 | 0 | 0 | 0 | 182 |
| 11:00 | 1 | 93 | 32 | 8 | 22 | 3 | 3 | 1 | 7 | 0 | 0 | 0 | 0 | 170 |
| 12 PM | 2 | 111 | 26 | **8** | 17 | 1 | 1 | **3** | 5 | 0 | 0 | 0 | 0 | 174 |
| 13:00 | 2 | 85 | 38 | 5 | **23** | 0 | 0 | 2 | **7** | 0 | 0 | 0 | 0 | 162 |
| 14:00 | 0 | 106 | 31 | 3 | 13 | **3** | **2** | 1 | 5 | 0 | 0 | 0 | 0 | 164 |
| 15:00 | 2 | 129 | 32 | 4 | 8 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | **1** | 184 |
| 16:00 | **4** | **141** | 40 | 2 | 12 | 1 | 2 | 1 | 5 | 0 | 0 | 0 | 0 | **208** |
| 17:00 | 2 | 126 | **48** | 5 | 13 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 196 |
| 18:00 | 0 | 95 | 29 | 0 | 6 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 137 |
| 19:00 | 1 | 61 | 14 | 3 | 4 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 87 |
| 20:00 | 1 | 53 | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| 21:00 | 0 | 35 | 14 | 2 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 58 |
| 22:00 | 0 | 32 | 8 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 45 |
| 23:00 | 0 | 10 | 4 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 19 |
| Day Total | 21 | 2100 | 603 | 96 | 226 | 23 | 22 | 24 | 121 | 1 | 0 | 0 | 2 | 3239 |
| Percent | 0.6% | 64.8% | 18.6% | 3.0% | 7.0% | 0.7% | 0.7% | 0.7% | 3.7% | 0.0% | 0.0% | 0.0% | 0.1% | |
| AM Peak | 07:00 | 07:00 | 07:00 | 09:00 | 08:00 | 10:00 | 07:00 | 07:00 | 10:00 | 05:00 | | | 07:00 | 07:00 |
| Vol. | 2 | 366 | 59 | 14 | 23 | 4 | 6 | 4 | 20 | 1 | | | 1 | 470 |
| PM Peak | 16:00 | 16:00 | 17:00 | 12:00 | 13:00 | 14:00 | 14:00 | 12:00 | 13:00 | | | | 15:00 | 16:00 |
| Vol. | 4 | 141 | 48 | 8 | 23 | 3 | 2 | 3 | 7 | | | | 1 | 208 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/21/19 | 0 | 17 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 01:00 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | **1** | 2 | 0 | 0 | 0 | 0 | 7 |
| 02:00 | 0 | 5 | 5 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 03:00 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 10 |
| 04:00 | 0 | 18 | 6 | **4** | 4 | 0 | 2 | 0 | 4 | **1** | 0 | 0 | 0 | 39 |
| 05:00 | 0 | 40 | 21 | 1 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 70 |
| 06:00 | **1** | **104** | **43** | 3 | **10** | 0 | **3** | 0 | **10** | 0 | 0 | 0 | 0 | **174** |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 18:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 19:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Day Total | 1 | 189 | 83 | 12 | 24 | 0 | 5 | 1 | 25 | 1 | 0 | 0 | 0 | 341 |
| Percent | 0.3% | 55.4% | 24.3% | 3.5% | 7.0% | 0.0% | 1.5% | 0.3% | 7.3% | 0.3% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 06:00 | 06:00 | 06:00 | 04:00 | 06:00 | | 06:00 | 01:00 | 06:00 | 04:00 | | | | 06:00 |
| Vol. | 1 | 104 | 43 | 4 | 10 | | 3 | 1 | 10 | 1 | | | | 174 |
| PM Peak | | | | | | | | | | | | | | |
| Vol. | | | | | | | | | | | | | | |
| Grand Total | 82 | 6963 | 2011 | 294 | 764 | 74 | 83 | 74 | 413 | 14 | 0 | 0 | 8 | 10780 |
| Percent | 0.8% | 64.6% | 18.7% | 2.7% | 7.1% | 0.7% | 0.8% | 0.7% | 3.8% | 0.1% | 0.0% | 0.0% | 0.1% | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/17/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | **10** | **266** | **77** | 0 | **13** | **1** | **1** | 0 | **2** | 0 | 0 | 0 | 0 | **370** |
| 18:00 | 3 | 148 | 34 | 1 | 7 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 195 |
| 19:00 | 1 | 104 | 22 | 1 | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 137 |
| 20:00 | 2 | 90 | 18 | 3 | 8 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 123 |
| 21:00 | 1 | 57 | 18 | **4** | 7 | 0 | 0 | 0 | 2 | **1** | 0 | 0 | 0 | 90 |
| 22:00 | 0 | 42 | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 54 |
| 23:00 | 1 | 36 | 4 | 3 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 52 |
| Day Total | 18 | 743 | 184 | 12 | 48 | 3 | 2 | 0 | 10 | 1 | 0 | 0 | 0 | 1021 |
| Percent | 1.8% | 72.8% | 18.0% | 1.2% | 4.7% | 0.3% | 0.2% | 0.0% | 1.0% | 0.1% | 0.0% | 0.0% | 0.0% | |
| AM Peak Vol. | | | | | | | | | | | | | | |
| PM Peak | 17:00 | 17:00 | 17:00 | 21:00 | 17:00 | 17:00 | 17:00 | | 17:00 | 21:00 | | | | 17:00 |
| Vol. | 10 | 266 | 77 | 4 | 13 | 1 | 1 | | 2 | 1 | | | | 370 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/18/19 | 0 | 14 | 9 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 01:00 | 0 | 11 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 16 |
| 02:00 | 0 | 10 | 1 | 1 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 17 |
| 03:00 | 0 | 10 | 10 | 4 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 32 |
| 04:00 | 0 | 11 | 12 | 4 | 7 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 41 |
| 05:00 | 3 | 35 | 18 | 6 | 9 | 4 | 2 | **1** | 3 | 0 | 0 | 0 | 0 | 81 |
| 06:00 | 2 | 77 | 45 | 7 | 14 | 2 | 1 | 1 | 5 | 1 | 0 | 0 | 0 | 155 |
| 07:00 | 3 | 85 | **47** | 7 | 14 | 5 | 1 | 0 | 8 | 1 | 0 | 0 | 0 | 171 |
| 08:00 | 3 | **105** | 33 | **8** | 19 | 4 | 0 | 1 | 9 | **2** | 0 | 0 | 0 | **184** |
| 09:00 | 2 | 79 | 38 | 7 | **22** | 6 | 2 | 0 | **17** | 0 | 0 | 0 | 0 | 173 |
| 10:00 | 2 | 85 | 34 | 7 | 19 | **7** | **4** | 1 | 10 | 0 | 0 | 0 | 0 | 169 |
| 11:00 | **4** | 89 | 35 | 2 | 18 | 2 | 1 | 1 | 12 | 0 | 0 | 0 | 0 | 164 |
| 12 PM | 1 | 89 | 38 | 6 | **21** | 3 | 1 | **1** | 5 | 0 | 0 | 0 | 0 | 165 |
| 13:00 | 1 | 104 | 43 | 6 | 17 | **7** | 3 | 0 | **11** | 0 | 0 | 0 | **1** | 193 |
| 14:00 | 1 | 106 | 52 | **12** | 12 | 2 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 195 |
| 15:00 | 2 | 185 | 60 | 7 | 17 | 2 | **4** | 1 | 11 | **1** | 0 | 0 | 0 | 290 |
| 16:00 | 3 | **297** | **66** | 1 | 8 | 3 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | **386** |
| 17:00 | **5** | 285 | 60 | 2 | 6 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 364 |
| 18:00 | 3 | 132 | 38 | 4 | 5 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 186 |
| 19:00 | 0 | 112 | 20 | 4 | 8 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 146 |
| 20:00 | 3 | 88 | 19 | 4 | 7 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 125 |
| 21:00 | 1 | 57 | 16 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 80 |
| 22:00 | 1 | 39 | 7 | 3 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 56 |
| 23:00 | 0 | 42 | 7 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 53 |
| Day Total | 40 | 2147 | 710 | 109 | 238 | 51 | 21 | 8 | 142 | 5 | 0 | 0 | 1 | 3472 |
| Percent | 1.2% | 61.8% | 20.4% | 3.1% | 6.9% | 1.5% | 0.6% | 0.2% | 4.1% | 0.1% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 08:00 | 07:00 | 08:00 | 09:00 | 10:00 | 10:00 | 05:00 | 09:00 | 08:00 | | | | 08:00 |
| Vol. | 4 | 105 | 47 | 8 | 22 | 7 | 4 | 1 | 17 | 2 | | | | 184 |
| PM Peak | 17:00 | 16:00 | 16:00 | 14:00 | 12:00 | 13:00 | 15:00 | 12:00 | 13:00 | 15:00 | | | 13:00 | 16:00 |
| Vol. | 5 | 297 | 66 | 12 | 21 | 7 | 4 | 1 | 11 | 1 | | | 1 | 386 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/19/19 | 0 | 20 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 24 |
| 01:00 | 1 | 11 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 17 |
| 02:00 | 0 | 8 | 3 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 16 |
| 03:00 | 2 | 10 | 4 | 1 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 1 | 13 | 20 | 4 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 51 |
| 05:00 | 0 | 29 | 19 | 7 | 9 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 71 |
| 06:00 | 3 | 87 | **51** | 8 | 9 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | **1** | 171 |
| 07:00 | **6** | 93 | 24 | 1 | 10 | 1 | **2** | **3** | 14 | 0 | 0 | 0 | 0 | 154 |
| 08:00 | 5 | 84 | 37 | 8 | 15 | 4 | 1 | 1 | 8 | 0 | 0 | 0 | 1 | 164 |
| 09:00 | 4 | 95 | 34 | 6 | 12 | **8** | 2 | 1 | 8 | 0 | 0 | 0 | 0 | 170 |
| 10:00 | 4 | 75 | 34 | **9** | **17** | 4 | 1 | 2 | 12 | 0 | 0 | 0 | 1 | 159 |
| 11:00 | 3 | **105** | 36 | 4 | 12 | 2 | 2 | 1 | **17** | 0 | 0 | 0 | 0 | **182** |
| 12 PM | 3 | 116 | 36 | 8 | 9 | 4 | 1 | **1** | 7 | 0 | 0 | 0 | **1** | 186 |
| 13:00 | 4 | 90 | 36 | 7 | 3 | **5** | 0 | 1 | 4 | **2** | 0 | 0 | 0 | 152 |
| 14:00 | 3 | 135 | 51 | 4 | 10 | 2 | **2** | 0 | 5 | 0 | 0 | 0 | 0 | 212 |
| 15:00 | **5** | 186 | 54 | **10** | 10 | 3 | 0 | 1 | **14** | 0 | 0 | 0 | 0 | 283 |
| 16:00 | 1 | 307 | **66** | 0 | **13** | 3 | 0 | 1 | 10 | 1 | 0 | 0 | 0 | **402** |
| 17:00 | 5 | **309** | 63 | 2 | 4 | 2 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 390 |
| 18:00 | 0 | 134 | 39 | 2 | 6 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 186 |
| 19:00 | 0 | 113 | 24 | 3 | 5 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 151 |
| 20:00 | 0 | 99 | 15 | 1 | 3 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 122 |
| 21:00 | 1 | 62 | 10 | 4 | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 86 |
| 22:00 | 0 | 37 | 14 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 58 |
| 23:00 | 1 | 35 | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 43 |
| Day Total | 52 | 2253 | 679 | 92 | 162 | 50 | 12 | 14 | 151 | 3 | 0 | 0 | 6 | 3474 |
| Percent | 1.5% | 64.9% | 19.5% | 2.6% | 4.7% | 1.4% | 0.3% | 0.4% | 4.3% | 0.1% | 0.0% | 0.0% | 0.2% | |
| AM Peak | 07:00 | 11:00 | 06:00 | 10:00 | 10:00 | 09:00 | 07:00 | 07:00 | 11:00 | | | | 06:00 | 11:00 |
| Vol. | 6 | 105 | 51 | 9 | 17 | 8 | 2 | 3 | 17 | | | | 1 | 182 |
| PM Peak | 15:00 | 17:00 | 16:00 | 15:00 | 16:00 | 13:00 | 14:00 | 12:00 | 15:00 | 13:00 | | | 12:00 | 16:00 |
| Vol. | 5 | 309 | 66 | 10 | 13 | 5 | 2 | 1 | 14 | 2 | | | 1 | 402 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/20/19 | 0 | 24 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 27 |
| 01:00 | 3 | 6 | 3 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 17 |
| 02:00 | 0 | 9 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 03:00 | 0 | 7 | 7 | 3 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 23 |
| 04:00 | 1 | 11 | 14 | 2 | 2 | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 40 |
| 05:00 | 0 | 30 | 16 | 3 | 5 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 61 |
| 06:00 | 2 | 79 | 37 | 3 | 18 | 3 | **2** | 1 | 6 | 0 | 0 | 0 | 0 | 151 |
| 07:00 | **5** | **94** | 30 | **10** | 14 | 3 | 1 | **3** | 4 | 0 | 0 | 0 | **1** | 165 |
| 08:00 | 1 | 82 | **40** | 10 | **22** | 3 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | **169** |
| 09:00 | 3 | 87 | 28 | 6 | 19 | 3 | 0 | 0 | **16** | 0 | 0 | 0 | 0 | 162 |
| 10:00 | 1 | 70 | 34 | 9 | 22 | **4** | 2 | 1 | 9 | 0 | 0 | 0 | 0 | 152 |
| 11:00 | 4 | 86 | 36 | 3 | 13 | 3 | 1 | 2 | 11 | 0 | 0 | 0 | 0 | 159 |
| 12 PM | 1 | 97 | 31 | 3 | **20** | **2** | 2 | 1 | 8 | 0 | 0 | 0 | 0 | 165 |
| 13:00 | **5** | 120 | 35 | 4 | 14 | 2 | **4** | **3** | 8 | 0 | 0 | 0 | 0 | 195 |
| 14:00 | 1 | 123 | 38 | **7** | 14 | 1 | 3 | 0 | **11** | 0 | 0 | 0 | 0 | 198 |
| 15:00 | 5 | 181 | 59 | 6 | 19 | 2 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 278 |
| 16:00 | 5 | 284 | 81 | 1 | 18 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 397 |
| 17:00 | 4 | **292** | **82** | 5 | 12 | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | **405** |
| 18:00 | 1 | 123 | 27 | 7 | 8 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 173 |
| 19:00 | 2 | 120 | 20 | 2 | 8 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 155 |
| 20:00 | 0 | 85 | 18 | 3 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | **1** | 112 |
| 21:00 | 0 | 55 | 11 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 68 |
| 22:00 | 0 | 41 | 10 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 54 |
| 23:00 | 0 | 43 | 7 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 54 |
| Day Total | 44 | 2149 | 667 | 91 | 239 | 32 | 19 | 12 | 137 | 0 | 0 | 0 | 2 | 3392 |
| Percent | 1.3% | 63.4% | 19.7% | 2.7% | 7.0% | 0.9% | 0.6% | 0.4% | 4.0% | 0.0% | 0.0% | 0.0% | 0.1% | |
| AM Peak | 07:00 | 07:00 | 08:00 | 07:00 | 08:00 | 10:00 | 06:00 | 07:00 | 09:00 | | | | 07:00 | 08:00 |
| Vol. | 5 | 94 | 40 | 10 | 22 | 4 | 2 | 3 | 16 | | | | 1 | 169 |
| PM Peak | 13:00 | 17:00 | 17:00 | 14:00 | 12:00 | 12:00 | 13:00 | 13:00 | 14:00 | | | | 20:00 | 17:00 |
| Vol. | 5 | 292 | 82 | 7 | 20 | 2 | 4 | 3 | 11 | | | | 1 | 405 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/21/19 | 0 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 13 |
| 01:00 | **1** | 10 | 11 | **4** | 4 | **2** | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 35 |
| 02:00 | 0 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 11 |
| 03:00 | 0 | 7 | 6 | 1 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 20 |
| 04:00 | 1 | 6 | 13 | 2 | 4 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 33 |
| 05:00 | 0 | 22 | 11 | 0 | 6 | 0 | **1** | 0 | 5 | 0 | 0 | 0 | 0 | 45 |
| 06:00 | 1 | **54** | **28** | 3 | **10** | 2 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | **105** |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 18:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 19:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Day Total | 3 | 114 | 74 | 10 | 26 | 6 | 1 | 0 | 28 | 0 | 0 | 0 | 0 | 262 |
| Percent | 1.1% | 43.5% | 28.2% | 3.8% | 9.9% | 2.3% | 0.4% | 0.0% | 10.7% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 01:00 | 06:00 | 06:00 | 01:00 | 06:00 | 01:00 | 05:00 | | 06:00 | | | | | 06:00 |
| Vol. | 1 | 54 | 28 | 4 | 10 | 2 | 1 | | 7 | | | | | 105 |
| PM Peak | | | | | | | | | | | | | | |
| Vol. | | | | | | | | | | | | | | |
| Grand Total | 157 | 7406 | 2314 | 314 | 713 | 142 | 55 | 34 | 468 | 9 | 0 | 0 | 9 | 11621 |
| Percent | 1.4% | 63.7% | 19.9% | 2.7% | 6.1% | 1.2% | 0.5% | 0.3% | 4.0% | 0.1% | 0.0% | 0.0% | 0.1% | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Direction 1

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/17/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 5 | 0 | 2 | 7 | 5 | 12 | 55 | 75 | 38 | 3 | 1 | 0 | 0 | 0 | 0 | 203 |
| 18:00 | 1 | 0 | 0 | 0 | 2 | 15 | 36 | 48 | 20 | 4 | 0 | 0 | 1 | 0 | 0 | 127 |
| 19:00 | 0 | 0 | 1 | 0 | 4 | 13 | 52 | 27 | 18 | 3 | 1 | 0 | 1 | 0 | 0 | 120 |
| 20:00 | 0 | 0 | 1 | 0 | 3 | 5 | 26 | 29 | 12 | 4 | 2 | 0 | 0 | 0 | 0 | 82 |
| 21:00 | 0 | 0 | 0 | 0 | 0 | 7 | 19 | 17 | 9 | 4 | 1 | 0 | 0 | 0 | 0 | 57 |
| 22:00 | 0 | 0 | 2 | 0 | 1 | 16 | 15 | 7 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 53 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 6 | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 25 |
| Total | 6 | 0 | 6 | 7 | 15 | 70 | 211 | 209 | 114 | 21 | 6 | 0 | 2 | 0 | 0 | 667 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Direction 1

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/18/19 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 10 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 31 |
| 01:00 | 0 | 0 | 0 | 0 | 2 | 7 | 6 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 02:00 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 12 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 1 | 14 | 4 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 29 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 15 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 28 |
| 05:00 | 0 | 0 | 0 | 0 | 3 | 4 | 25 | 48 | 13 | 5 | 5 | 0 | 0 | 0 | 0 | 103 |
| 06:00 | 5 | 1 | 1 | 1 | 11 | 13 | 48 | 75 | 52 | 5 | 0 | 0 | 0 | 0 | 0 | 212 |
| 07:00 | 4 | 0 | 0 | 4 | 12 | 55 | 161 | 155 | 64 | 11 | 0 | 0 | 0 | 0 | 0 | 466 |
| 08:00 | 7 | 0 | 1 | 4 | 22 | 57 | 113 | 104 | 50 | 7 | 0 | 1 | 0 | 0 | 0 | 366 |
| 09:00 | 4 | 1 | 1 | 1 | 7 | 53 | 68 | 56 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 213 |
| 10:00 | 2 | 1 | 0 | 0 | 7 | 43 | 55 | 54 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 177 |
| 11:00 | 3 | 0 | 1 | 2 | 17 | 47 | 70 | 30 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 181 |
| 12 PM | 5 | 1 | 0 | 0 | 7 | 31 | 66 | 45 | 12 | 1 | 0 | 1 | 0 | 0 | 0 | 169 |
| 13:00 | 11 | 6 | 0 | 3 | 15 | 31 | 46 | 34 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 159 |
| 14:00 | 4 | 0 | 0 | 5 | 15 | 27 | 62 | 57 | 18 | 2 | 1 | 0 | 0 | 0 | 0 | 191 |
| 15:00 | 0 | 0 | 0 | 0 | 6 | 21 | 66 | 49 | 30 | 5 | 0 | 0 | 0 | 0 | 0 | 177 |
| 16:00 | 4 | 2 | 1 | 0 | 1 | 12 | 71 | 81 | 18 | 5 | 0 | 1 | 0 | 0 | 0 | 196 |
| 17:00 | 0 | 1 | 1 | 2 | 10 | 11 | 46 | 71 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 163 |
| 18:00 | 0 | 0 | 0 | 3 | 3 | 10 | 32 | 42 | 22 | 2 | 1 | 0 | 0 | 0 | 0 | 115 |
| 19:00 | 2 | 0 | 0 | 1 | 4 | 11 | 22 | 26 | 21 | 3 | 0 | 0 | 0 | 0 | 0 | 90 |
| 20:00 | 1 | 1 | 0 | 0 | 2 | 13 | 17 | 27 | 9 | 3 | 0 | 0 | 0 | 0 | 1 | 74 |
| 21:00 | 0 | 0 | 0 | 3 | 0 | 15 | 20 | 23 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 68 |
| 22:00 | 0 | 0 | 0 | 0 | 1 | 11 | 15 | 12 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 45 |
| 23:00 | 1 | 0 | 0 | 0 | 0 | 2 | 3 | 6 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 21 |
| Total | 53 | 14 | 6 | 30 | 145 | 476 | 1046 | 1024 | 422 | 76 | 9 | 3 | 0 | 0 | 1 | 3305 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Direction 1

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/19/19 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 7 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 21 |
| 01:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 8 |
| 02:00 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 4 | 7 | 4 | 1 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 0 | 0 | 0 | 0 | 1 | 6 | 15 | 11 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 05:00 | 1 | 0 | 0 | 0 | 1 | 13 | 21 | 25 | 30 | 5 | 0 | 0 | 0 | 0 | 0 | 96 |
| 06:00 | 3 | 0 | 0 | 0 | 14 | 24 | 27 | 55 | 53 | 10 | 0 | 0 | 0 | 0 | 0 | 186 |
| 07:00 | 9 | 0 | 1 | 5 | 18 | 45 | 112 | 182 | 70 | 9 | 1 | 1 | 0 | 0 | 0 | 453 |
| 08:00 | 5 | 0 | 0 | 2 | 20 | 60 | 99 | 125 | 39 | 6 | 0 | 0 | 0 | 0 | 0 | 356 |
| 09:00 | 4 | 0 | 2 | 7 | 5 | 21 | 64 | 46 | 20 | 3 | 1 | 0 | 0 | 0 | 0 | 173 |
| 10:00 | 5 | 0 | 0 | 0 | 14 | 34 | 45 | 47 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 157 |
| 11:00 | 2 | 1 | 0 | 2 | 4 | 34 | 54 | 48 | 18 | 3 | 1 | 0 | 0 | 0 | 0 | 167 |
| 12 PM | 0 | 0 | 0 | 0 | 3 | 28 | 59 | 56 | 16 | 5 | 0 | 0 | 0 | 0 | 0 | 167 |
| 13:00 | 5 | 0 | 0 | 3 | 7 | 14 | 61 | 66 | 33 | 3 | 0 | 0 | 0 | 0 | 0 | 192 |
| 14:00 | 0 | 0 | 0 | 1 | 8 | 31 | 69 | 54 | 17 | 2 | 1 | 0 | 0 | 0 | 0 | 183 |
| 15:00 | 2 | 1 | 0 | 3 | 0 | 22 | 66 | 71 | 19 | 3 | 1 | 0 | 0 | 0 | 0 | 188 |
| 16:00 | 4 | 1 | 1 | 3 | 2 | 24 | 61 | 78 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 195 |
| 17:00 | 4 | 3 | 2 | 3 | 2 | 21 | 56 | 74 | 27 | 7 | 1 | 0 | 0 | 0 | 0 | 200 |
| 18:00 | 3 | 0 | 0 | 1 | 4 | 16 | 52 | 49 | 19 | 7 | 3 | 0 | 0 | 0 | 0 | 154 |
| 19:00 | 0 | 0 | 0 | 0 | 0 | 13 | 31 | 40 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 93 |
| 20:00 | 1 | 0 | 0 | 0 | 2 | 16 | 29 | 20 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 82 |
| 21:00 | 1 | 0 | 0 | 0 | 0 | 7 | 8 | 23 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 49 |
| 22:00 | 0 | 0 | 0 | 0 | 2 | 3 | 13 | 8 | 9 | 2 | 1 | 0 | 0 | 0 | 0 | 38 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 20 |
| Total | 50 | 6 | 6 | 30 | 108 | 437 | 968 | 1101 | 447 | 85 | 11 | 1 | 0 | 0 | 0 | 3250 |

# *Tri-State Traffic Data Inc*
184 Baker Rd
Coatesville, PA 19320

Direction 1

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/20/19 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 6 | 6 | 3 | 1 | 0 | 0 | 0 | 0 | 28 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 5 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 16 |
| 04:00 | 1 | 0 | 0 | 0 | 1 | 2 | 6 | 10 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 26 |
| 05:00 | 2 | 0 | 0 | 1 | 8 | 12 | 22 | 29 | 17 | 2 | 1 | 0 | 0 | 0 | 0 | 94 |
| 06:00 | 3 | 0 | 0 | 2 | 12 | 17 | 28 | 73 | 42 | 6 | 1 | 0 | 0 | 0 | 0 | 184 |
| 07:00 | 6 | 0 | 1 | 5 | 6 | 54 | 154 | 169 | 73 | 3 | 0 | 0 | 1 | 0 | 0 | 472 |
| 08:00 | 15 | 8 | 22 | 19 | 21 | 47 | 93 | 68 | 39 | 9 | 0 | 0 | 0 | 0 | 0 | 341 |
| 09:00 | 0 | 0 | 0 | 3 | 4 | 25 | 73 | 77 | 22 | 2 | 0 | 0 | 1 | 0 | 0 | 207 |
| 10:00 | 2 | 0 | 1 | 2 | 8 | 33 | 67 | 43 | 20 | 6 | 0 | 0 | 0 | 0 | 0 | 182 |
| 11:00 | 2 | 1 | 2 | 0 | 3 | 35 | 56 | 49 | 21 | 2 | 0 | 0 | 0 | 0 | 0 | 171 |
| 12 PM | 4 | 1 | 1 | 5 | 0 | 20 | 50 | 60 | 30 | 3 | 0 | 0 | 0 | 0 | 0 | 174 |
| 13:00 | 1 | 1 | 1 | 1 | 9 | 14 | 50 | 55 | 27 | 4 | 0 | 0 | 0 | 0 | 0 | 163 |
| 14:00 | 2 | 3 | 0 | 2 | 3 | 32 | 45 | 50 | 24 | 2 | 0 | 0 | 0 | 1 | 0 | 164 |
| 15:00 | 4 | 0 | 3 | 5 | 11 | 14 | 68 | 52 | 23 | 6 | 0 | 0 | 0 | 0 | 0 | 186 |
| 16:00 | 6 | 0 | 1 | 5 | 7 | 13 | 68 | 71 | 30 | 6 | 1 | 0 | 0 | 0 | 1 | 209 |
| 17:00 | 5 | 2 | 1 | 1 | 19 | 25 | 70 | 51 | 21 | 2 | 0 | 0 | 0 | 0 | 0 | 197 |
| 18:00 | 0 | 0 | 1 | 0 | 2 | 15 | 34 | 47 | 33 | 4 | 1 | 0 | 0 | 0 | 0 | 137 |
| 19:00 | 0 | 0 | 1 | 0 | 2 | 14 | 22 | 25 | 17 | 5 | 1 | 0 | 0 | 0 | 0 | 87 |
| 20:00 | 0 | 2 | 0 | 1 | 5 | 7 | 13 | 16 | 16 | 3 | 0 | 0 | 0 | 0 | 0 | 63 |
| 21:00 | 1 | 0 | 0 | 0 | 0 | 16 | 14 | 17 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 58 |
| 22:00 | 0 | 0 | 0 | 0 | 1 | 4 | 14 | 17 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 45 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 19 |
| Total | 54 | 18 | 35 | 52 | 122 | 411 | 969 | 1006 | 496 | 74 | 8 | 0 | 2 | 1 | 1 | 3249 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Direction 1

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/21/19 | 0 | 0 | 0 | 1 | 3 | 3 | 6 | 5 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 23 |
| 01:00 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 03:00 | 1 | 0 | 0 | 0 | 1 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 04:00 | 0 | 0 | 0 | 0 | 3 | 5 | 11 | 9 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 39 |
| 05:00 | 1 | 0 | 0 | 0 | 1 | 5 | 15 | 27 | 14 | 6 | 1 | 0 | 0 | 0 | 0 | 70 |
| 06:00 | 3 | 0 | 1 | 1 | 7 | 28 | 51 | 45 | 38 | 1 | 0 | 0 | 0 | 0 | 0 | 175 |
| 07:00 | 2 | 1 | 4 | 4 | 13 | 33 | 130 | 156 | 68 | 7 | 0 | 1 | 0 | 0 | 0 | 419 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 18:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 19:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 7 | 1 | 5 | 6 | 30 | 87 | 221 | 246 | 140 | 16 | 1 | 1 | 0 | 0 | 0 | 761 |
| Grand Total | 170 | 39 | 58 | 125 | 420 | 1481 | 3415 | 3586 | 1619 | 272 | 35 | 5 | 4 | 1 | 2 | 11232 |

| Stats | | |
|---|---|---|
| | 15th Percentile : | 42 MPH |
| | 50th Percentile : | 49 MPH |
| | 85th Percentile : | 55 MPH |
| | 95th Percentile : | 59 MPH |
| | Mean Speed(Average) : | 50 MPH |
| | 10 MPH Pace Speed : | 46-55 MPH |
| | Number in Pace : | 7001 |
| | Percent in Pace : | 62.3% |
| | Number of Vehicles > 55 MPH : | 1938 |
| | Percent of Vehicles > 55 MPH : | 17.3% |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Direction 2

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/17/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 1 | 0 | 2 | 1 | 8 | 48 | 153 | 111 | 38 | 8 | 0 | 0 | 0 | 0 | 0 | 370 |
| 18:00 | 1 | 0 | 0 | 1 | 2 | 26 | 69 | 56 | 34 | 4 | 0 | 1 | 1 | 0 | 0 | 195 |
| 19:00 | 1 | 0 | 0 | 3 | 5 | 16 | 35 | 53 | 18 | 5 | 0 | 0 | 0 | 0 | 1 | 137 |
| 20:00 | 0 | 0 | 1 | 1 | 3 | 19 | 33 | 38 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 123 |
| 21:00 | 0 | 0 | 0 | 1 | 2 | 16 | 28 | 29 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 90 |
| 22:00 | 0 | 0 | 2 | 0 | 1 | 6 | 9 | 15 | 15 | 6 | 0 | 0 | 0 | 0 | 0 | 54 |
| 23:00 | 0 | 1 | 2 | 2 | 0 | 3 | 16 | 10 | 14 | 4 | 0 | 0 | 0 | 0 | 0 | 52 |
| Total | 3 | 1 | 7 | 9 | 21 | 134 | 343 | 312 | 153 | 35 | 0 | 1 | 1 | 0 | 1 | 1021 |

Direction 2

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/18/19 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 10 | 10 | 5 | 1 | 0 | 0 | 0 | 0 | 30 |
| 01:00 | 0 | 0 | 0 | 0 | 1 | 1 | 7 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 16 |
| 02:00 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 4 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 17 |
| 03:00 | 0 | 0 | 0 | 0 | 1 | 0 | 7 | 7 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 32 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 7 | 9 | 10 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 41 |
| 05:00 | 0 | 0 | 0 | 0 | 6 | 11 | 18 | 24 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 81 |
| 06:00 | 1 | 1 | 0 | 1 | 6 | 28 | 33 | 54 | 24 | 7 | 0 | 0 | 0 | 0 | 0 | 155 |
| 07:00 | 6 | 0 | 1 | 4 | 2 | 30 | 53 | 55 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 172 |
| 08:00 | 1 | 0 | 0 | 1 | 27 | 34 | 70 | 30 | 18 | 2 | 1 | 0 | 0 | 0 | 0 | 184 |
| 09:00 | 5 | 6 | 1 | 3 | 26 | 36 | 60 | 31 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 174 |
| 10:00 | 4 | 0 | 2 | 2 | 14 | 47 | 53 | 34 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 169 |
| 11:00 | 10 | 1 | 1 | 6 | 14 | 34 | 55 | 35 | 8 | 1 | 1 | 0 | 0 | 0 | 0 | 166 |
| 12 PM | 3 | 1 | 2 | 3 | 8 | 28 | 71 | 36 | 8 | 5 | 0 | 0 | 0 | 1 | 0 | 166 |
| 13:00 | 5 | 0 | 0 | 1 | 21 | 52 | 70 | 36 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 195 |
| 14:00 | 3 | 0 | 0 | 0 | 11 | 44 | 57 | 58 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 195 |
| 15:00 | 5 | 2 | 2 | 5 | 10 | 42 | 104 | 82 | 35 | 3 | 0 | 0 | 0 | 0 | 0 | 290 |
| 16:00 | 5 | 0 | 3 | 8 | 9 | 58 | 137 | 126 | 39 | 2 | 0 | 0 | 0 | 0 | 0 | 387 |
| 17:00 | 3 | 0 | 1 | 0 | 11 | 47 | 161 | 114 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 365 |
| 18:00 | 5 | 0 | 2 | 5 | 2 | 27 | 66 | 48 | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 186 |
| 19:00 | 0 | 0 | 0 | 0 | 1 | 18 | 53 | 47 | 22 | 4 | 1 | 0 | 0 | 0 | 0 | 146 |
| 20:00 | 3 | 0 | 0 | 1 | 6 | 18 | 47 | 28 | 17 | 3 | 1 | 1 | 0 | 0 | 0 | 125 |
| 21:00 | 5 | 0 | 0 | 4 | 5 | 13 | 26 | 14 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 80 |
| 22:00 | 0 | 0 | 0 | 0 | 3 | 13 | 13 | 18 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 56 |
| 23:00 | 0 | 0 | 0 | 0 | 1 | 4 | 9 | 15 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 53 |
| Total | 64 | 11 | 15 | 44 | 186 | 593 | 1188 | 919 | 400 | 53 | 6 | 1 | 0 | 1 | 0 | 3481 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Direction 2

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/19/19 | 2 | 0 | 0 | 0 | 0 | 3 | 9 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 01:00 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 2 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 17 |
| 02:00 | 2 | 0 | 0 | 0 | 0 | 3 | 5 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 03:00 | 2 | 0 | 0 | 0 | 0 | 7 | 7 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 3 | 0 | 1 | 0 | 3 | 4 | 16 | 20 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 52 |
| 05:00 | 3 | 0 | 0 | 2 | 1 | 11 | 16 | 32 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 06:00 | 3 | 0 | 2 | 2 | 5 | 30 | 61 | 55 | 9 | 3 | 1 | 0 | 0 | 0 | 1 | 172 |
| 07:00 | 7 | 4 | 2 | 4 | 9 | 30 | 57 | 38 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 157 |
| 08:00 | 13 | 1 | 2 | 2 | 6 | 41 | 58 | 35 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 164 |
| 09:00 | 3 | 0 | 6 | 1 | 17 | 32 | 68 | 35 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 170 |
| 10:00 | 6 | 1 | 1 | 2 | 11 | 47 | 57 | 28 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 159 |
| 11:00 | 4 | 1 | 0 | 6 | 21 | 39 | 55 | 41 | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 183 |
| 12 PM | 3 | 1 | 0 | 2 | 19 | 53 | 57 | 42 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 186 |
| 13:00 | 5 | 0 | 0 | 6 | 12 | 30 | 61 | 32 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 154 |
| 14:00 | 0 | 0 | 2 | 0 | 10 | 49 | 84 | 56 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 212 |
| 15:00 | 7 | 0 | 0 | 4 | 9 | 46 | 113 | 83 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 283 |
| 16:00 | 1 | 2 | 3 | 6 | 15 | 73 | 156 | 119 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 402 |
| 17:00 | 2 | 0 | 1 | 9 | 16 | 72 | 161 | 106 | 16 | 7 | 0 | 0 | 0 | 0 | 0 | 390 |
| 18:00 | 3 | 0 | 0 | 0 | 10 | 44 | 48 | 66 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 186 |
| 19:00 | 1 | 0 | 0 | 1 | 6 | 25 | 64 | 36 | 15 | 3 | 0 | 0 | 0 | 0 | 0 | 151 |
| 20:00 | 0 | 0 | 1 | 1 | 7 | 25 | 41 | 30 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 122 |
| 21:00 | 1 | 0 | 0 | 0 | 5 | 16 | 24 | 25 | 11 | 2 | 1 | 0 | 1 | 0 | 0 | 86 |
| 22:00 | 1 | 0 | 0 | 1 | 2 | 8 | 19 | 21 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 58 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 18 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| Total | 72 | 10 | 21 | 49 | 185 | 692 | 1252 | 935 | 233 | 27 | 4 | 0 | 1 | 1 | 2 | 3484 |

# ***Tri-State Traffic Data Inc***

184 Baker Rd
Coatesville, PA 19320

Direction 2

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/20/19 | 1 | 0 | 0 | 1 | 1 | 6 | 9 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 01:00 | 1 | 0 | 0 | 2 | 2 | 4 | 2 | 1 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| 02:00 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 03:00 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 11 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 23 |
| 04:00 | 1 | 0 | 0 | 0 | 3 | 9 | 15 | 8 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 05:00 | 2 | 0 | 0 | 0 | 1 | 11 | 11 | 29 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 62 |
| 06:00 | 7 | 0 | 1 | 0 | 13 | 33 | 45 | 45 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 152 |
| 07:00 | 2 | 2 | 0 | 0 | 11 | 45 | 50 | 45 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 165 |
| 08:00 | 7 | 0 | 3 | 13 | 17 | 38 | 54 | 29 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 170 |
| 09:00 | 1 | 1 | 0 | 1 | 15 | 35 | 71 | 32 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 162 |
| 10:00 | 2 | 0 | 0 | 8 | 9 | 32 | 61 | 30 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 153 |
| 11:00 | 3 | 2 | 2 | 4 | 12 | 32 | 51 | 40 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 159 |
| 12 PM | 0 | 3 | 2 | 7 | 14 | 32 | 59 | 31 | 15 | 2 | 0 | 0 | 0 | 0 | 0 | 165 |
| 13:00 | 1 | 0 | 1 | 1 | 13 | 39 | 64 | 52 | 22 | 2 | 0 | 0 | 0 | 0 | 0 | 195 |
| 14:00 | 3 | 1 | 0 | 2 | 7 | 34 | 59 | 67 | 21 | 4 | 0 | 0 | 0 | 0 | 0 | 198 |
| 15:00 | 2 | 5 | 3 | 7 | 18 | 43 | 94 | 74 | 28 | 3 | 0 | 1 | 0 | 0 | 0 | 278 |
| 16:00 | 4 | 1 | 1 | 1 | 17 | 56 | 148 | 124 | 42 | 4 | 0 | 0 | 0 | 0 | 0 | 398 |
| 17:00 | 4 | 0 | 2 | 3 | 18 | 91 | 171 | 91 | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 405 |
| 18:00 | 1 | 1 | 1 | 0 | 8 | 20 | 59 | 60 | 18 | 4 | 1 | 0 | 0 | 0 | 0 | 173 |
| 19:00 | 0 | 1 | 1 | 2 | 9 | 29 | 47 | 37 | 26 | 2 | 0 | 1 | 0 | 0 | 0 | 155 |
| 20:00 | 0 | 1 | 0 | 0 | 7 | 20 | 36 | 34 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 112 |
| 21:00 | 0 | 0 | 0 | 2 | 2 | 12 | 25 | 18 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 68 |
| 22:00 | 0 | 0 | 0 | 0 | 5 | 12 | 18 | 9 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 54 |
| 23:00 | 0 | 0 | 0 | 0 | 1 | 1 | 9 | 25 | 16 | 2 | 0 | 0 | 0 | 0 | 0 | 54 |
| Total | 44 | 18 | 17 | 54 | 206 | 634 | 1165 | 905 | 315 | 37 | 1 | 2 | 0 | 0 | 0 | 3398 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Direction 2

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06/21/19 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 01:00 | 0 | 0 | 0 | 4 | 3 | 2 | 6 | 9 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 02:00 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 03:00 | 0 | 0 | 0 | 0 | 1 | 1 | 9 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 20 |
| 04:00 | 0 | 0 | 0 | 2 | 2 | 6 | 11 | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 33 |
| 05:00 | 0 | 0 | 1 | 0 | 1 | 5 | 12 | 19 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 45 |
| 06:00 | 0 | 0 | 2 | 0 | 9 | 10 | 37 | 30 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 105 |
| 07:00 | 3 | 1 | 0 | 0 | 9 | 33 | 47 | 39 | 10 | 3 | 0 | 0 | 0 | 0 | 0 | 145 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 18:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 19:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 4 | 1 | 3 | 6 | 27 | 58 | 127 | 123 | 49 | 9 | 0 | 0 | 0 | 0 | 0 | 407 |
| Grand Total | 187 | 41 | 63 | 162 | 625 | 2111 | 4075 | 3194 | 1150 | 161 | 11 | 4 | 2 | 2 | 3 | 11791 |

| | | |
|---|---|---|
| Stats | 15th Percentile : | 41 MPH |
| | 50th Percentile : | 48 MPH |
| | 85th Percentile : | 54 MPH |
| | 95th Percentile : | 58 MPH |
| | Mean Speed(Average) : | 48 MPH |
| | 10 MPH Pace Speed : | 46-55 MPH |
| | Number in Pace : | 7269 |
| | Percent in Pace : | 61.6% |
| | Number of Vehicles > 55 MPH : | 1333 |
| | Percent of Vehicles > 55 MPH : | 11.3% |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: NY 144 - River Rd
Segment: 110' N of Anders Lane
Ctr#: 36067

GPS: 42.602516, -73.769694

| Start | 17-Jun-19 | | Tue | | Wed | | Thu | | Fri | | Sat | | Sun | | Week Average | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Northboun | Southbou | Northbou | Southbou | Northbou | Southbou | Northbou | Southbou | Northbou | Southbou | Northbou | Southbou | Northbou | Southbou | Northbou | Southbou |
| 12:00 AM | * | * | 31 | 30 | 21 | 24 | 28 | 27 | 23 | 13 | * | * | * | * | 26 | 24 |
| 01:00 | * | * | 19 | 16 | 8 | 17 | 12 | 17 | 7 | 35 | * | * | * | * | 12 | 21 |
| 02:00 | * | * | 12 | 17 | 10 | 16 | 14 | 12 | 18 | 11 | * | * | * | * | 14 | 14 |
| 03:00 | * | * | 29 | 32 | 24 | 24 | 16 | 23 | 10 | 20 | * | * | * | * | 20 | 25 |
| 04:00 | * | * | 28 | 41 | 38 | 51 | 26 | 40 | 39 | 33 | * | * | * | * | 33 | 41 |
| 05:00 | * | * | 103 | 81 | 96 | 71 | 93 | 61 | 70 | 45 | * | * | * | * | 90 | 64 |
| 06:00 | * | * | 211 | 155 | 185 | 171 | 184 | 151 | **174** | **105** | * | * | * | * | 188 | 146 |
| 07:00 | * | * | **465** | 171 | **452** | 154 | **470** | 165 | * | * | * | * | * | * | **462** | 163 |
| 08:00 | * | * | 365 | **184** | 355 | 164 | 340 | **169** | * | * | * | * | * | * | 353 | **172** |
| 09:00 | * | * | 212 | 173 | 173 | 170 | 207 | 162 | * | * | * | * | * | * | 197 | 168 |
| 10:00 | * | * | 177 | 169 | 156 | 159 | 182 | 152 | * | * | * | * | * | * | 172 | 160 |
| 11:00 | * | * | 179 | 164 | 166 | **182** | 170 | 159 | * | * | * | * | * | * | 172 | 168 |
| 12:00 PM | * | * | 169 | 165 | 167 | 186 | 174 | 165 | * | * | * | * | * | * | 170 | 172 |
| 01:00 | * | * | 157 | 193 | 190 | 152 | 162 | 195 | * | * | * | * | * | * | 170 | 180 |
| 02:00 | * | * | 191 | 195 | 183 | 212 | 164 | 198 | * | * | * | * | * | * | 179 | 202 |
| 03:00 | * | * | 177 | 290 | 187 | 283 | 184 | 278 | * | * | * | * | * | * | 183 | 284 |
| 04:00 | * | * | **194** | **386** | 194 | **402** | **208** | 397 | * | * | * | * | * | * | **199** | **395** |
| 05:00 | **202** | **370** | 163 | 364 | **199** | 390 | 196 | **405** | * | * | * | * | * | * | 190 | 382 |
| 06:00 | 127 | 195 | 115 | 186 | 153 | 186 | 137 | 173 | * | * | * | * | * | * | 133 | 185 |
| 07:00 | 120 | 137 | 90 | 146 | 93 | 151 | 87 | 155 | * | * | * | * | * | * | 98 | 147 |
| 08:00 | 82 | 123 | 74 | 125 | 82 | 122 | 63 | 112 | * | * | * | * | * | * | 75 | 120 |
| 09:00 | 57 | 90 | 68 | 80 | 49 | 86 | 58 | 68 | * | * | * | * | * | * | 58 | 81 |
| 10:00 | 53 | 54 | 45 | 56 | 38 | 58 | 45 | 54 | * | * | * | * | * | * | 45 | 56 |
| 11:00 | 25 | 52 | 21 | 53 | 20 | 43 | 19 | 54 | * | * | * | * | * | * | 21 | 50 |
| Lane | 666 | 1021 | 3295 | 3472 | 3239 | 3474 | 3239 | 3392 | 341 | 262 | 0 | 0 | 0 | 0 | 3260 | 3420 |
| Day | 1687 | | 6767 | | 6713 | | 6631 | | 603 | | 0 | | 0 | | 6680 | |
| AM Peak | - | - | 07:00 | 08:00 | 07:00 | 11:00 | 07:00 | 08:00 | 06:00 | 06:00 | - | - | - | - | 07:00 | 08:00 |
| Vol. | - | - | 465 | 184 | 452 | 182 | 470 | 169 | 174 | 105 | - | - | - | - | 462 | 172 |
| PM Peak | 17:00 | 17:00 | 16:00 | 16:00 | 17:00 | 16:00 | 16:00 | 17:00 | - | - | - | - | - | - | 16:00 | 16:00 |
| Vol. | 202 | 370 | 194 | 386 | 199 | 402 | 208 | 405 | - | - | - | - | - | - | 199 | 395 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Comb. Total | 1687 | 6767 | 6713 | 6631 | 603 | 0 | 0 | 6680 |
| ADT | ADT 6,676 | AADT 6,676 | | | | | | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 1 | **612** | **69** | **10** | **6** | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | **699** |
| 18:00 | 1 | 373 | 48 | 6 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 433 |
| 19:00 | 1 | 283 | 39 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | **2** | 236 | 23 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 263 |
| 21:00 | 0 | 185 | 16 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 203 |
| 22:00 | 0 | 115 | 12 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 23:00 | 0 | 83 | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| Total | 5 | 1887 | 216 | 17 | 21 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2148 |
| Percent | 0.2% | 87.8% | 10.1% | 0.8% | 1.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | | | | | | | | | | | | | | |
| Vol. | | | | | | | | | | | | | | |
| PM Peak | 20:00 | 17:00 | 17:00 | 17:00 | 17:00 | | | | 17:00 | | | | | 17:00 |
| Vol. | 2 | 612 | 69 | 10 | 6 | | | | 1 | | | | | 699 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 37 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 01:00 | 0 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 20 |
| 02:00 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 03:00 | 0 | 21 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 0 | 22 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 05:00 | 0 | 100 | 17 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 06:00 | 0 | 319 | 43 | 3 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 371 |
| 07:00 | **3** | 838 | **91** | **12** | 9 | 1 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | **956** |
| 08:00 | 0 | **841** | 89 | 10 | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 953 |
| 09:00 | 0 | 438 | 51 | 5 | **14** | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 510 |
| 10:00 | 0 | 321 | 69 | 2 | 11 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 405 |
| 11:00 | 0 | 327 | 61 | 3 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| 12 PM | 0 | 352 | 51 | 3 | 6 | 1 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 415 |
| 13:00 | **1** | 350 | 64 | 2 | 6 | **3** | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 428 |
| 14:00 | 0 | 416 | 76 | 1 | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 508 |
| 15:00 | 1 | 623 | **90** | **12** | **21** | 2 | 0 | 1 | 0 | **1** | 0 | 0 | 0 | 751 |
| 16:00 | 0 | **754** | 64 | 9 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **836** |
| 17:00 | 0 | 667 | 58 | 8 | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 742 |
| 18:00 | 0 | 452 | 36 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 498 |
| 19:00 | 0 | 296 | 27 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 5 | 7199 | 902 | 75 | 136 | 14 | 0 | 6 | 9 | 1 | 0 | 0 | 0 | 8347 |
| Percent | 0.1% | 86.2% | 10.8% | 0.9% | 1.6% | 0.2% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 08:00 | 07:00 | 07:00 | 09:00 | 09:00 | | 07:00 | 01:00 | | | | | 07:00 |
| Vol. | 3 | 841 | 91 | 12 | 14 | 2 | | 1 | 1 | | | | | 956 |
| PM Peak | 13:00 | 16:00 | 15:00 | 15:00 | 15:00 | 13:00 | | 13:00 | 12:00 | 15:00 | | | | 16:00 |
| Vol. | 1 | 754 | 90 | 12 | 21 | 3 | | 1 | 2 | 1 | | | | 836 |
| Grand Total | 10 | 9086 | 1118 | 92 | 157 | 14 | 0 | 6 | 11 | 1 | 0 | 0 | 0 | 10495 |
| Percent | 0.1% | 86.6% | 10.7% | 0.9% | 1.5% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 1 | 173 | 17 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 194 |
| 17:15 | 0 | 160 | 19 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 |
| 17:30 | 0 | 150 | 21 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 174 |
| 17:45 | 0 | 129 | 12 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 146 |
| | 1 | 612 | 69 | 10 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 699 |
| 18:00 | 0 | 109 | 21 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 18:15 | 0 | 124 | 11 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 139 |
| 18:30 | 0 | 75 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 18:45 | 1 | 65 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 |
| | 1 | 373 | 48 | 6 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 433 |
| 19:00 | 0 | 96 | 13 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 19:15 | 0 | 64 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 19:30 | 1 | 61 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 19:45 | 0 | 62 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| | 1 | 283 | 39 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | 0 | 73 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 20:15 | 0 | 69 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 |
| 20:30 | 1 | 51 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 20:45 | 1 | 43 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| | 2 | 236 | 23 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 263 |
| 21:00 | 0 | 62 | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 21:15 | 0 | 51 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| 21:30 | 0 | 41 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 21:45 | 0 | 31 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| | 0 | 185 | 16 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 203 |
| 22:00 | 0 | 40 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 22:15 | 0 | 28 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 22:30 | 0 | 24 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 22:45 | 0 | 23 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| | 0 | 115 | 12 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 23:00 | 0 | 28 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 23:15 | 0 | 28 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 23:30 | 0 | 13 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 23:45 | 0 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| | 0 | 83 | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| Total | 5 | 1887 | 216 | 17 | 21 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2148 |
| Percent | 0.2% | 87.8% | 10.1% | 0.8% | 1.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 19 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 00:15 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 00:30 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 00:45 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 37 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 01:00 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 01:15 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 01:30 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:45 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| | 0 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 20 |
| 02:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:30 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:45 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 03:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 03:15 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 03:30 | 0 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 03:45 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 0 | 21 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:15 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:30 | 0 | 10 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 04:45 | 0 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| | 0 | 22 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 05:00 | 0 | 17 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 05:15 | 0 | 25 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 05:30 | 0 | 26 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 05:45 | 0 | 32 | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| | 0 | 100 | 17 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 06:00 | 0 | 32 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 38 |
| 06:15 | 0 | 56 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 06:30 | 0 | 111 | 15 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 06:45 | 0 | 120 | 14 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 |
| | 0 | 319 | 43 | 3 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 371 |
| 07:00 | 0 | 136 | 7 | 2 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 150 |
| 07:15 | 1 | 169 | 19 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 193 |
| 07:30 | 1 | 282 | 35 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 324 |
| 07:45 | 1 | 251 | 30 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 289 |
| | 3 | 838 | 91 | 12 | 9 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 956 |
| 08:00 | 0 | 240 | 27 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 274 |
| 08:15 | 0 | 224 | 17 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 248 |
| 08:30 | 0 | 206 | 23 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 235 |
| 08:45 | 0 | 171 | 22 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |
| | 0 | 841 | 89 | 10 | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 953 |
| 09:00 | 0 | 149 | 14 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 168 |
| 09:15 | 0 | 95 | 20 | 2 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 09:30 | 0 | 113 | 11 | 1 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 09:45 | 0 | 81 | 6 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| | 0 | 438 | 51 | 5 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 510 |
| 10:00 | 0 | 87 | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| 10:15 | 0 | 67 | 18 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 89 |
| 10:30 | 0 | 85 | 20 | 2 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 10:45 | 0 | 82 | 19 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| | 0 | 321 | 69 | 2 | 11 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 405 |
| 11:00 | 0 | 72 | 16 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 11:15 | 0 | 88 | 16 | 1 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 11:30 | 0 | 84 | 14 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| 11:45 | 0 | 83 | 15 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| | 0 | 327 | 61 | 3 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| Total | 3 | 3289 | 436 | 36 | 66 | 7 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 3843 |
| Percent | 0.1% | 85.6% | 11.3% | 0.9% | 1.7% | 0.2% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | 0 | 86 | 12 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 101 |
| 12:15 | 0 | 100 | 13 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 12:30 | 0 | 81 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 12:45 | 0 | 85 | 16 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| | 0 | 352 | 51 | 3 | 6 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 415 |
| 13:00 | 1 | 79 | 16 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 |
| 13:15 | 0 | 86 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 13:30 | 0 | 105 | 15 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| 13:45 | 0 | 80 | 17 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 102 |
| | 1 | 350 | 64 | 2 | 6 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 428 |
| 14:00 | 0 | 101 | 17 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| 14:15 | 0 | 105 | 16 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 126 |
| 14:30 | 0 | 81 | 19 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 14:45 | 0 | 129 | 24 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |
| | 0 | 416 | 76 | 1 | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 508 |
| 15:00 | 0 | 119 | 17 | 1 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 143 |
| 15:15 | 0 | 128 | 22 | 1 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 |
| 15:30 | 1 | 188 | 22 | 1 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 220 |
| 15:45 | 0 | 188 | 29 | 9 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 228 |
| | 1 | 623 | 90 | 12 | 21 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 751 |
| 16:00 | 0 | 182 | 23 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 |
| 16:15 | 0 | 180 | 18 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 203 |
| 16:30 | 0 | 186 | 11 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| 16:45 | 0 | 206 | 12 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 224 |
| | 0 | 754 | 64 | 9 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 836 |
| 17:00 | 0 | 186 | 21 | 3 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 215 |
| 17:15 | 0 | 172 | 15 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 191 |
| 17:30 | 0 | 178 | 16 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |
| 17:45 | 0 | 131 | 6 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 140 |
| | 0 | 667 | 58 | 8 | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 742 |
| 18:00 | 0 | 156 | 11 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 |
| 18:15 | 0 | 110 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 18:30 | 0 | 106 | 10 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 |
| 18:45 | 0 | 80 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| | 0 | 452 | 36 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 498 |
| 19:00 | 0 | 73 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 19:15 | 0 | 79 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 19:30 | 0 | 77 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 19:45 | 0 | 67 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| | 0 | 296 | 27 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 3910 | 466 | 39 | 70 | 7 | 0 | 4 | 5 | 1 | 0 | 0 | 0 | 4504 |
| Percent | 0.0% | 86.8% | 10.3% | 0.9% | 1.6% | 0.2% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Grand Total | 10 | 9086 | 1118 | 92 | 157 | 14 | 0 | 6 | 11 | 1 | 0 | 0 | 0 | 10495 |
| Percent | 0.1% | 86.6% | 10.7% | 0.9% | 1.5% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 13 | 15 | 229 | 343 | 87 | 10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 699 |
| 18:00 | 4 | 12 | 144 | 227 | 42 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 433 |
| 19:00 | 2 | 7 | 130 | 162 | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | 2 | 11 | 98 | 128 | 21 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 263 |
| 21:00 | 2 | 6 | 90 | 90 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 203 |
| 22:00 | 1 | 6 | 63 | 48 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 23:00 | 0 | 7 | 39 | 45 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| Total | 24 | 64 | 793 | 1043 | 200 | 21 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2148 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 3 | 20 | 14 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 01:00 | 1 | 2 | 9 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 02:00 | 0 | 1 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 03:00 | 0 | 2 | 7 | 11 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 0 | 1 | 11 | 14 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 05:00 | 1 | 7 | 59 | 46 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 06:00 | 6 | 10 | 135 | 185 | 32 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 371 |
| 07:00 | 23 | 20 | 298 | 475 | 124 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 956 |
| 08:00 | 5 | 12 | 328 | 492 | 112 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 953 |
| 09:00 | 6 | 21 | 158 | 277 | 40 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 510 |
| 10:00 | 5 | 7 | 150 | 197 | 43 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 405 |
| 11:00 | 1 | 11 | 151 | 191 | 43 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| 12 PM | 6 | 14 | 145 | 216 | 29 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 415 |
| 13:00 | 19 | 10 | 164 | 200 | 32 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 428 |
| 14:00 | 4 | 28 | 203 | 224 | 47 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 508 |
| 15:00 | 7 | 20 | 239 | 390 | 86 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 751 |
| 16:00 | 10 | 9 | 224 | 453 | 129 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 836 |
| 17:00 | 11 | 5 | 212 | 406 | 97 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 742 |
| 18:00 | 3 | 12 | 156 | 255 | 63 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 498 |
| 19:00 | 6 | 19 | 115 | 140 | 40 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 114 | 214 | 2787 | 4197 | 935 | 93 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8347 |
| Grand Total | 138 | 278 | 3580 | 5240 | 1135 | 114 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10495 |

| Stats | | |
|---|---|---|
| | 15th Percentile : | 26 MPH |
| | 50th Percentile : | 31 MPH |
| | 85th Percentile : | 34 MPH |
| | 95th Percentile : | 38 MPH |
| | Mean Speed(Average) : | 31 MPH |
| | 10 MPH Pace Speed : | 26-35 MPH |
| | Number in Pace : | 8820 |
| | Percent in Pace : | 84.0% |
| | Number of Vehicles > 55 MPH : | 0 |
| | Percent of Vehicles > 55 MPH : | 0.0% |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:30 | 4 | 8 | 52 | 125 | 44 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 235 |
| 16:45 | 3 | 2 | 63 | 114 | 34 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 219 |
| | 7 | 10 | 115 | 239 | 78 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 454 |
| 17:00 | 4 | 4 | 61 | 94 | 27 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 194 |
| 17:15 | 5 | 7 | 59 | 86 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 185 |
| 17:30 | 2 | 2 | 64 | 90 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 174 |
| 17:45 | 2 | 2 | 45 | 73 | 20 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 146 |
| | 13 | 15 | 229 | 343 | 87 | 10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 699 |
| 18:00 | 1 | 4 | 45 | 71 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 18:15 | 2 | 3 | 38 | 84 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139 |
| 18:30 | 0 | 2 | 31 | 40 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 18:45 | 1 | 3 | 30 | 32 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 |
| | 4 | 12 | 144 | 227 | 42 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 433 |
| 19:00 | 1 | 3 | 45 | 49 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 19:15 | 1 | 0 | 24 | 48 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 19:30 | 0 | 0 | 29 | 38 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 19:45 | 0 | 4 | 32 | 27 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| | 2 | 7 | 130 | 162 | 22 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | 0 | 1 | 28 | 44 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 20:15 | 2 | 4 | 31 | 35 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 76 |
| 20:30 | 0 | 3 | 20 | 25 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| 20:45 | 0 | 3 | 19 | 24 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| | 2 | 11 | 98 | 128 | 21 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 263 |
| 21:00 | 0 | 1 | 33 | 28 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 21:15 | 2 | 4 | 21 | 23 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| 21:30 | 0 | 1 | 22 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 21:45 | 0 | 0 | 14 | 20 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| | 2 | 6 | 90 | 90 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 203 |
| 22:00 | 0 | 1 | 20 | 19 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 22:15 | 0 | 3 | 12 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 22:30 | 1 | 1 | 13 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 22:45 | 0 | 1 | 18 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| | 1 | 6 | 63 | 48 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 23:00 | 0 | 1 | 11 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 23:15 | 0 | 2 | 14 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 23:30 | 0 | 3 | 6 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 23:45 | 0 | 1 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| | 0 | 7 | 39 | 45 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| Total | 31 | 74 | 908 | 1282 | 278 | 26 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2602 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 3 | 7 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 00:15 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 00:30 | 0 | 0 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 00:45 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 3 | 20 | 14 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 01:00 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 01:15 | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 01:30 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 01:45 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | 1 | 2 | 9 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 02:00 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:30 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 02:45 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 1 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 03:00 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 03:15 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 03:30 | 0 | 1 | 2 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 03:45 | 0 | 0 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 0 | 2 | 7 | 11 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 04:00 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:15 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 04:30 | 0 | 0 | 4 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 04:45 | 0 | 0 | 6 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| | 0 | 1 | 11 | 14 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 05:00 | 0 | 3 | 7 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 05:15 | 0 | 2 | 16 | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 05:30 | 1 | 1 | 19 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 05:45 | 0 | 1 | 17 | 21 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| | 1 | 7 | 59 | 46 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 06:00 | 2 | 1 | 19 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 06:15 | 1 | 4 | 28 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| 06:30 | 0 | 4 | 38 | 76 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 06:45 | 3 | 1 | 50 | 64 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 |
| | 6 | 10 | 135 | 185 | 32 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 371 |
| 07:00 | 4 | 4 | 42 | 92 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 07:15 | 4 | 1 | 56 | 88 | 39 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 193 |
| 07:30 | 7 | 8 | 99 | 156 | 46 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 324 |
| 07:45 | 8 | 7 | 101 | 139 | 31 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 289 |
| | 23 | 20 | 298 | 475 | 124 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 956 |
| 08:00 | 3 | 5 | 74 | 148 | 42 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 274 |
| 08:15 | 2 | 3 | 86 | 134 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 248 |
| 08:30 | 0 | 0 | 95 | 112 | 27 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 235 |
| 08:45 | 0 | 4 | 73 | 98 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |
| | 5 | 12 | 328 | 492 | 112 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 953 |
| 09:00 | 1 | 3 | 51 | 99 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 168 |
| 09:15 | 0 | 4 | 41 | 64 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 09:30 | 3 | 13 | 36 | 67 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 09:45 | 2 | 1 | 30 | 47 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| | 6 | 21 | 158 | 277 | 40 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 510 |
| 10:00 | 0 | 2 | 34 | 50 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| 10:15 | 1 | 2 | 37 | 41 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| 10:30 | 2 | 2 | 43 | 56 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 |
| 10:45 | 2 | 1 | 36 | 50 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| | 5 | 7 | 150 | 197 | 43 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 405 |
| 11:00 | 0 | 2 | 39 | 39 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 11:15 | 0 | 5 | 46 | 51 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 111 |
| 11:30 | 1 | 4 | 30 | 53 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| 11:45 | 0 | 0 | 36 | 48 | 15 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| | 1 | 11 | 151 | 191 | 43 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| Total | 48 | 97 | 1329 | 1913 | 412 | 42 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3843 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

Northbound

| Start | 1 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | 76 | 81 | 86 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 9999 | Total |
| 12 PM | 3 | 0 | 31 | 57 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 |
| 12:15 | 1 | 3 | 46 | 61 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 12:30 | 2 | 4 | 35 | 39 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 12:45 | 0 | 7 | 33 | 59 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 106 |
| | 6 | 14 | 145 | 216 | 29 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 415 |
| 13:00 | 0 | 0 | 34 | 54 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 |
| 13:15 | 3 | 3 | 38 | 48 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 13:30 | 13 | 2 | 58 | 46 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| 13:45 | 3 | 5 | 34 | 52 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| | 19 | 10 | 164 | 200 | 32 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 428 |
| 14:00 | 0 | 6 | 47 | 58 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| 14:15 | 2 | 4 | 51 | 56 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 126 |
| 14:30 | 2 | 8 | 42 | 38 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 14:45 | 0 | 10 | 63 | 72 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |
| | 4 | 28 | 203 | 224 | 47 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 508 |
| 15:00 | 2 | 4 | 53 | 64 | 16 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 |
| 15:15 | 2 | 4 | 54 | 86 | 13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 |
| 15:30 | 1 | 3 | 65 | 119 | 28 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 220 |
| 15:45 | 2 | 9 | 67 | 121 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 228 |
| | 7 | 20 | 239 | 390 | 86 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 751 |
| 16:00 | 3 | 1 | 66 | 114 | 21 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 209 |
| 16:15 | 2 | 2 | 57 | 110 | 30 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 203 |
| 16:30 | 1 | 1 | 37 | 124 | 33 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| 16:45 | 4 | 5 | 64 | 105 | 45 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 224 |
| | 10 | 9 | 224 | 453 | 129 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 836 |
| 17:00 | 5 | 0 | 61 | 115 | 29 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215 |
| 17:15 | 6 | 2 | 66 | 99 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 191 |
| 17:30 | 0 | 0 | 56 | 109 | 27 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |
| 17:45 | 0 | 3 | 29 | 83 | 23 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 |
| | 11 | 5 | 212 | 406 | 97 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 742 |
| 18:00 | 1 | 0 | 50 | 85 | 30 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 |
| 18:15 | 1 | 4 | 35 | 63 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| 18:30 | 1 | 6 | 43 | 60 | 11 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 123 |
| 18:45 | 0 | 2 | 28 | 47 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| | 3 | 12 | 156 | 255 | 63 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 498 |
| 19:00 | 1 | 6 | 24 | 37 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 19:15 | 0 | 6 | 32 | 35 | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 19:30 | 0 | 1 | 30 | 43 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 19:45 | 5 | 6 | 29 | 25 | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| | 6 | 19 | 115 | 140 | 40 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 326 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 66 | 117 | 1458 | 2284 | 523 | 51 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4504 |
| Total | 145 | 288 | 3695 | 5479 | 1213 | 119 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10949 |

Stats

| | |
|---|---|
| 15th Percentile : | 26 MPH |
| 50th Percentile : | 31 MPH |
| 85th Percentile : | 34 MPH |
| 95th Percentile : | 38 MPH |
| Mean Speed(Average) : | 31 MPH |
| 10 MPH Pace Speed : | 26-35 MPH |
| Number in Pace : | 9174 |
| Percent in Pace : | 83.8% |
| Number of Vehicles > 55 MPH : | 0 |
| Percent of Vehicles > 55 MPH : | 0.0% |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

| Start Time | Mon 30-Sep-19 | Tue 01-Oct-19 | Wed 02-Oct-19 | Thu 03-Oct-19 | Fri 04-Oct-19 | | Average Day | | Sat 05-Oct-19 | Sun 06-Oct-19 | | Week Average | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 AM | * | * | 42 | * | * | | 42 | | * | * | | 42 | | |
| 01:00 | * | * | 20 | * | * | | 20 | | * | * | | 20 | | |
| 02:00 | * | * | 8 | * | * | | 8 | | * | * | | 8 | | |
| 03:00 | * | * | 24 | * | * | | 24 | | * | * | | 24 | | |
| 04:00 | * | * | 29 | * | * | | 29 | | * | * | | 29 | | |
| 05:00 | * | * | 121 | * | * | | 121 | | * | * | | 121 | | |
| 06:00 | * | * | 371 | * | * | | 371 | | * | * | | 371 | | |
| 07:00 | * | * | **956** | * | * | | **956** | | * | * | | **956** | | |
| 08:00 | * | * | 953 | * | * | | 953 | | * | * | | 953 | | |
| 09:00 | * | * | 510 | * | * | | 510 | | * | * | | 510 | | |
| 10:00 | * | * | 405 | * | * | | 405 | | * | * | | 405 | | |
| 11:00 | * | * | 404 | * | * | | 404 | | * | * | | 404 | | |
| 12:00 PM | * | * | 415 | * | * | | 415 | | * | * | | 415 | | |
| 01:00 | * | * | 428 | * | * | | 428 | | * | * | | 428 | | |
| 02:00 | * | * | 508 | * | * | | 508 | | * | * | | 508 | | |
| 03:00 | * | * | 751 | * | * | | 751 | | * | * | | 751 | | |
| 04:00 | * | * | **836** | * | * | | **836** | | * | * | | **836** | | |
| 05:00 | * | **699** | 742 | * | * | | 720 | | * | * | | 720 | | |
| 06:00 | * | 433 | 498 | * | * | | 466 | | * | * | | 466 | | |
| 07:00 | * | 326 | 326 | * | * | | 326 | | * | * | | 326 | | |
| 08:00 | * | 263 | * | * | * | | 263 | | * | * | | 263 | | |
| 09:00 | * | 203 | * | * | * | | 203 | | * | * | | 203 | | |
| 10:00 | * | 130 | * | * | * | | 130 | | * | * | | 130 | | |
| 11:00 | * | 94 | * | * | * | | 94 | | * | * | | 94 | | |
| Day Total | 0 | 2148 | 8347 | 0 | 0 | | 8983 | | 0 | 0 | | 8983 | | |
| % Avg. WkDay | 0.0% | 23.9% | 92.9% | 0.0% | 0.0% | | | | | | | | | |
| % Avg. Week | 0.0% | 23.9% | 92.9% | 0.0% | 0.0% | | 100.0% | | 0.0% | 0.0% | | | | |
| AM Peak | - | - | 07:00 | - | - | - | 07:00 | - | - | - | - | 07:00 | - | - |
| Vol. | - | - | 956 | - | - | - | 956 | - | - | - | - | 956 | - | - |
| PM Peak | - | 17:00 | 16:00 | - | - | - | 16:00 | - | - | - | - | 16:00 | - | - |
| Vol. | - | 699 | 836 | - | - | - | 836 | - | - | - | - | 836 | - | - |
| Grand Total | 0 | 2148 | 8347 | 0 | 0 | | 8983 | | 0 | 0 | | 8983 | | |

| | | |
|---|---|---|
| ADT | ADT 8,944 | AADT 8,944 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

| Start Time | 01-Oct-19 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon |
|---|---|---|---|---|---|
| 12:00 | | * | * | | |
| 12:15 | | * | * | | |
| 12:30 | | * | * | | |
| 12:45 | | * | * | 0 | 0 |
| 01:00 | | * | * | | |
| 01:15 | | * | * | | |
| 01:30 | | * | * | | |
| 01:45 | | * | * | 0 | 0 |
| 02:00 | | * | * | | |
| 02:15 | | * | * | | |
| 02:30 | | * | * | | |
| 02:45 | | * | * | 0 | 0 |
| 03:00 | | * | * | | |
| 03:15 | | * | * | | |
| 03:30 | | * | * | | |
| 03:45 | | * | * | 0 | 0 |
| 04:00 | | * | * | | |
| 04:15 | | * | * | | |
| 04:30 | | * | * | | |
| 04:45 | | * | * | 0 | 0 |
| 05:00 | | * | 194 | | |
| 05:15 | | * | 185 | | |
| 05:30 | | * | 174 | | |
| 05:45 | | * | 146 | 0 | 699 |
| 06:00 | | * | 135 | | |
| 06:15 | | * | 139 | | |
| 06:30 | | * | 83 | | |
| 06:45 | | * | 76 | 0 | 433 |
| 07:00 | | * | 111 | | |
| 07:15 | | * | 78 | | |
| 07:30 | | * | 71 | | |
| 07:45 | | * | 66 | 0 | 326 |
| 08:00 | | * | 78 | | |
| 08:15 | | * | 76 | | |
| 08:30 | | * | 59 | | |
| 08:45 | | * | 50 | 0 | 263 |
| 09:00 | | * | 71 | | |
| 09:15 | | * | 52 | | |
| 09:30 | | * | 44 | | |
| 09:45 | | * | 36 | 0 | 203 |
| 10:00 | | * | 43 | | |
| 10:15 | | * | 29 | | |
| 10:30 | | * | 29 | | |
| 10:45 | | * | 29 | 0 | 130 |
| 11:00 | | * | 30 | | |
| 11:15 | | * | 31 | | |
| 11:30 | | * | 16 | | |
| 11:45 | | * | 17 | 0 | 94 |
| Total | | 0 | 2148 | | |
| Percent | | 0.0% | 100.0% | | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Mainline On Ramp
Segment: 175' S of US9W
Ctr#: 35247

GPS: 42.635374, -73.777971

| Start | 02-Oct-19 | Northbound | | Hour Totals | |
|---|---|---|---|---|---|
| Time | Wed | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | 20 | 101 | | |
| 12:15 | | 10 | 117 | | |
| 12:30 | | 8 | 91 | | |
| 12:45 | | 4 | 106 | 42 | 415 |
| 01:00 | | 6 | 98 | | |
| 01:15 | | 7 | 103 | | |
| 01:30 | | 2 | 125 | | |
| 01:45 | | 5 | 102 | 20 | 428 |
| 02:00 | | 2 | 124 | | |
| 02:15 | | 0 | 126 | | |
| 02:30 | | 2 | 102 | | |
| 02:45 | | 4 | 156 | 8 | 508 |
| 03:00 | | 2 | 143 | | |
| 03:15 | | 5 | 160 | | |
| 03:30 | | 11 | 220 | | |
| 03:45 | | 6 | 228 | 24 | 751 |
| 04:00 | | 3 | 209 | | |
| 04:15 | | 3 | 203 | | |
| 04:30 | | 13 | 200 | | |
| 04:45 | | 10 | 224 | 29 | 836 |
| 05:00 | | 20 | 215 | | |
| 05:15 | | 27 | 191 | | |
| 05:30 | | 31 | 196 | | |
| 05:45 | | 43 | 140 | 121 | 742 |
| 06:00 | | 38 | 169 | | |
| 06:15 | | 66 | 117 | | |
| 06:30 | | 130 | 123 | | |
| 06:45 | | 137 | 89 | 371 | 498 |
| 07:00 | | 150 | 83 | | |
| 07:15 | | 193 | 84 | | |
| 07:30 | | 324 | 84 | | |
| 07:45 | | 289 | 75 | 956 | 326 |
| 08:00 | | 274 | 0 | | |
| 08:15 | | 248 | * | | |
| 08:30 | | 235 | * | | |
| 08:45 | | 196 | * | 953 | 0 |
| 09:00 | | 168 | * | | |
| 09:15 | | 122 | * | | |
| 09:30 | | 130 | * | | |
| 09:45 | | 90 | * | 510 | 0 |
| 10:00 | | 100 | * | | |
| 10:15 | | 89 | * | | |
| 10:30 | | 114 | * | | |
| 10:45 | | 102 | * | 405 | 0 |
| 11:00 | | 91 | * | | |
| 11:15 | | 111 | * | | |
| 11:30 | | 101 | * | | |
| 11:45 | | 101 | * | 404 | 0 |
| Total | | 3843 | 4504 | | |
| Percent | | 46.0% | 54.0% | | |
| Grand Total | | 3843 | 6652 | | |
| Percent | | 36.6% | 63.4% | | |
| ADT | | ADT 8,944 | | AADT 8,944 | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 1 | **446** | **82** | **3** | 15 | **2** | 0 | 1 | **5** | **1** | 0 | 0 | 0 | **556** |
| 18:00 | 1 | 375 | 43 | 3 | **16** | 2 | 0 | **3** | 3 | 1 | 0 | 0 | 0 | 447 |
| 19:00 | **2** | 233 | 54 | 2 | 5 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 300 |
| 20:00 | 1 | 168 | 29 | 1 | 2 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 205 |
| 21:00 | 0 | 116 | 18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 22:00 | 0 | 57 | 16 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 78 |
| 23:00 | 0 | 66 | 16 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 83 |
| Day Total | 5 | 1461 | 258 | 9 | 41 | 7 | 0 | 4 | 16 | 3 | 0 | 0 | 0 | 1804 |
| Percent | 0.3% | 81.0% | 14.3% | 0.5% | 2.3% | 0.4% | 0.0% | 0.2% | 0.9% | 0.2% | 0.0% | 0.0% | 0.0% | |
| AM Peak Vol. | | | | | | | | | | | | | | |
| PM Peak | 19:00 | 17:00 | 17:00 | 17:00 | 18:00 | 17:00 | | 18:00 | 17:00 | 17:00 | | | | 17:00 |
| Vol. | 2 | 446 | 82 | 3 | 16 | 2 | | 3 | 5 | 1 | | | | 556 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 23 |
| 01:00 | 0 | 9 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 17 |
| 02:00 | 0 | 14 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | **1** | 21 |
| 03:00 | 0 | 23 | 11 | 0 | 3 | 0 | 0 | 0 | 6 | 3 | 0 | 0 | 0 | 46 |
| 04:00 | 0 | 24 | 16 | 2 | 4 | 1 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 49 |
| 05:00 | 0 | 135 | 42 | 1 | 8 | 2 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 196 |
| 06:00 | 1 | 401 | 137 | 4 | **34** | 3 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 588 |
| 07:00 | 1 | 999 | **155** | 8 | 23 | 5 | 1 | 4 | 5 | 0 | 0 | 0 | 0 | 1201 |
| 08:00 | 0 | **1018** | 147 | 9 | 24 | 2 | 1 | 1 | 8 | **4** | 0 | 0 | 0 | **1214** |
| 09:00 | **2** | 586 | 109 | 4 | 25 | **7** | 0 | **9** | 9 | 1 | 0 | 0 | 0 | 752 |
| 10:00 | 0 | 383 | 90 | **13** | 27 | 7 | 1 | 8 | **14** | 0 | 0 | 0 | 0 | 543 |
| 11:00 | 0 | 337 | 86 | 10 | 30 | 4 | 0 | 2 | 9 | 3 | 0 | 0 | 0 | 481 |
| 12 PM | **1** | 385 | 90 | 5 | 15 | **9** | 0 | **2** | **13** | 2 | 0 | 0 | **2** | 524 |
| 13:00 | 1 | 344 | 88 | 7 | 33 | 7 | 2 | 1 | 6 | 2 | 0 | 0 | 0 | 491 |
| 14:00 | 1 | 363 | 106 | **10** | **35** | 4 | **4** | 2 | 10 | 4 | 0 | 0 | 0 | 539 |
| 15:00 | 1 | 500 | **150** | 8 | 23 | 5 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 692 |
| 16:00 | 0 | **549** | 122 | 7 | 19 | 2 | 1 | 0 | 5 | 2 | 0 | 0 | 0 | **707** |
| 17:00 | 0 | 483 | 83 | 6 | 14 | 5 | 0 | 0 | 3 | **5** | 0 | 0 | 0 | 599 |
| 18:00 | 0 | 372 | 42 | 1 | 12 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 431 |
| 19:00 | 0 | 265 | 47 | 1 | 7 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 325 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Day Total | 8 | 7208 | 1532 | 96 | 337 | 65 | 11 | 31 | 112 | 36 | 0 | 0 | 3 | 9439 |
| Percent | 0.1% | 76.4% | 16.2% | 1.0% | 3.6% | 0.7% | 0.1% | 0.3% | 1.2% | 0.4% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 09:00 | 08:00 | 07:00 | 10:00 | 06:00 | 09:00 | 04:00 | 09:00 | 10:00 | 08:00 | | | 02:00 | 08:00 |
| Vol. | 2 | 1018 | 155 | 13 | 34 | 7 | 1 | 9 | 14 | 4 | | | 1 | 1214 |
| PM Peak | 12:00 | 16:00 | 15:00 | 14:00 | 14:00 | 12:00 | 14:00 | 12:00 | 12:00 | 17:00 | | | 12:00 | 16:00 |
| Vol. | 1 | 549 | 150 | 10 | 35 | 9 | 4 | 2 | 13 | 5 | | | 2 | 707 |
| Grand Total | 13 | 8669 | 1790 | 105 | 378 | 72 | 11 | 35 | 128 | 39 | 0 | 0 | 3 | 11243 |
| Percent | 0.1% | 77.1% | 15.9% | 0.9% | 3.4% | 0.6% | 0.1% | 0.3% | 1.1% | 0.3% | 0.0% | 0.0% | 0.0% | |

# *Tri-State Traffic Data Inc*

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| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 134 | 28 | 2 | 5 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 173 |
| 17:15 | 0 | 119 | 21 | 0 | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 149 |
| 17:30 | 1 | 105 | 18 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 128 |
| 17:45 | 0 | 88 | 15 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 106 |
| | 1 | 446 | 82 | 3 | 15 | 2 | 0 | 1 | 5 | 1 | 0 | 0 | 0 | 556 |
| 18:00 | 0 | 86 | 10 | 2 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |
| 18:15 | 0 | 100 | 18 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 122 |
| 18:30 | 0 | 105 | 8 | 1 | 5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 122 |
| 18:45 | 1 | 84 | 7 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 96 |
| | 1 | 375 | 43 | 3 | 16 | 2 | 0 | 3 | 3 | 1 | 0 | 0 | 0 | 447 |
| 19:00 | 2 | 63 | 14 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 19:15 | 0 | 71 | 16 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 89 |
| 19:30 | 0 | 45 | 12 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 61 |
| 19:45 | 0 | 54 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| | 2 | 233 | 54 | 2 | 5 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 300 |
| 20:00 | 0 | 53 | 8 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 65 |
| 20:15 | 1 | 48 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 20:30 | 0 | 26 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 20:45 | 0 | 41 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| | 1 | 168 | 29 | 1 | 2 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 205 |
| 21:00 | 0 | 34 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 21:15 | 0 | 20 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 21:30 | 0 | 31 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 21:45 | 0 | 31 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| | 0 | 116 | 18 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 22:00 | 0 | 20 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 26 |
| 22:15 | 0 | 17 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 20 |
| 22:30 | 0 | 12 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 20 |
| 22:45 | 0 | 8 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| | 0 | 57 | 16 | 0 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 78 |
| 23:00 | 0 | 19 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 23:15 | 0 | 24 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 23:30 | 0 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 23:45 | 0 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 15 |
| | 0 | 66 | 16 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 83 |
| Total | 5 | 1461 | 258 | 9 | 41 | 7 | 0 | 4 | 16 | 3 | 0 | 0 | 0 | 1804 |
| Percent | 0.3% | 81.0% | 14.3% | 0.5% | 2.3% | 0.4% | 0.0% | 0.2% | 0.9% | 0.2% | 0.0% | 0.0% | 0.0% | |

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GPS: 42.632459, -73.774014

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 |
| 00:15 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 6 |
| 00:30 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 00:45 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 0 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 23 |
| 01:00 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:15 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 01:30 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:45 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 9 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 17 |
| 02:00 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 02:15 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 02:30 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 |
| 02:45 | 0 | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 10 |
| | 0 | 14 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 21 |
| 03:00 | 0 | 7 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 03:15 | 0 | 4 | 2 | 0 | 1 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 12 |
| 03:30 | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 13 |
| 03:45 | 0 | 5 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 9 |
| | 0 | 23 | 11 | 0 | 3 | 0 | 0 | 0 | 6 | 3 | 0 | 0 | 0 | 46 |
| 04:00 | 0 | 3 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 04:15 | 0 | 7 | 5 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 04:30 | 0 | 4 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 04:45 | 0 | 10 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 15 |
| | 0 | 24 | 16 | 2 | 4 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 49 |
| 05:00 | 0 | 19 | 4 | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 30 |
| 05:15 | 0 | 23 | 4 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 30 |
| 05:30 | 0 | 44 | 17 | 0 | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 65 |
| 05:45 | 0 | 49 | 17 | 0 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 71 |
| | 0 | 135 | 42 | 1 | 8 | 2 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 196 |
| 06:00 | 0 | 50 | 28 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 83 |
| 06:15 | 1 | 78 | 29 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| 06:30 | 0 | 113 | 30 | 3 | 10 | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 163 |
| 06:45 | 0 | 160 | 50 | 1 | 11 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 224 |
| | 1 | 401 | 137 | 4 | 34 | 3 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 588 |
| 07:00 | 0 | 149 | 31 | 2 | 10 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 196 |
| 07:15 | 1 | 266 | 49 | 3 | 6 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 330 |
| 07:30 | 0 | 286 | 29 | 2 | 2 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 323 |
| 07:45 | 0 | 298 | 46 | 1 | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 352 |
| | 1 | 999 | 155 | 8 | 23 | 5 | 1 | 4 | 5 | 0 | 0 | 0 | 0 | 1201 |
| 08:00 | 0 | 263 | 49 | 1 | 7 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 325 |
| 08:15 | 0 | 277 | 29 | 1 | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 316 |
| 08:30 | 0 | 254 | 29 | 5 | 4 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 297 |
| 08:45 | 0 | 224 | 40 | 2 | 6 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 276 |
| | 0 | 1018 | 147 | 9 | 24 | 2 | 1 | 1 | 8 | 4 | 0 | 0 | 0 | 1214 |
| 09:00 | 2 | 175 | 36 | 2 | 10 | 2 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 233 |
| 09:15 | 0 | 171 | 19 | 1 | 8 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 202 |
| 09:30 | 0 | 119 | 27 | 0 | 4 | 3 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 157 |
| 09:45 | 0 | 121 | 27 | 1 | 3 | 2 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 160 |
| | 2 | 586 | 109 | 4 | 25 | 7 | 0 | 9 | 9 | 1 | 0 | 0 | 0 | 752 |
| 10:00 | 0 | 78 | 19 | 3 | 5 | 3 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 115 |
| 10:15 | 0 | 88 | 19 | 2 | 5 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 121 |
| 10:30 | 0 | 106 | 31 | 5 | 9 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 157 |
| 10:45 | 0 | 111 | 21 | 3 | 8 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 150 |
| | 0 | 383 | 90 | 13 | 27 | 7 | 1 | 8 | 14 | 0 | 0 | 0 | 0 | 543 |
| 11:00 | 0 | 77 | 21 | 1 | 9 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 110 |
| 11:15 | 0 | 89 | 25 | 2 | 9 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 130 |
| 11:30 | 0 | 86 | 21 | 4 | 10 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 124 |
| 11:45 | 0 | 85 | 19 | 3 | 2 | 2 | 0 | 2 | 3 | 1 | 0 | 0 | 0 | 117 |
| | 0 | 337 | 86 | 10 | 30 | 4 | 0 | 2 | 9 | 3 | 0 | 0 | 0 | 481 |
| Total | 4 | 3947 | 804 | 51 | 179 | 31 | 4 | 24 | 66 | 20 | 0 | 0 | 1 | 5131 |
| Percent | 0.1% | 76.9% | 15.7% | 1.0% | 3.5% | 0.6% | 0.1% | 0.5% | 1.3% | 0.4% | 0.0% | 0.0% | 0.0% | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramo from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | 0 | 83 | 24 | 3 | 2 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | 118 |
| 12:15 | 0 | 99 | 16 | 1 | 5 | 5 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 130 |
| 12:30 | 1 | 107 | 18 | 0 | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 135 |
| 12:45 | 0 | 96 | 32 | 1 | 1 | 3 | 0 | 1 | 5 | 1 | 0 | 0 | 1 | 141 |
| | 1 | 385 | 90 | 5 | 15 | 9 | 0 | 2 | 13 | 2 | 0 | 0 | 2 | 524 |
| 13:00 | 1 | 86 | 31 | 2 | 8 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 132 |
| 13:15 | 0 | 78 | 18 | 2 | 7 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 110 |
| 13:30 | 0 | 75 | 23 | 2 | 8 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 113 |
| 13:45 | 0 | 105 | 16 | 1 | 10 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 136 |
| | 1 | 344 | 88 | 7 | 33 | 7 | 2 | 1 | 6 | 2 | 0 | 0 | 0 | 491 |
| 14:00 | 0 | 86 | 26 | 2 | 11 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 129 |
| 14:15 | 1 | 96 | 21 | 3 | 11 | 2 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 139 |
| 14:30 | 0 | 86 | 34 | 3 | 7 | 0 | 0 | 1 | 4 | 2 | 0 | 0 | 0 | 137 |
| 14:45 | 0 | 95 | 25 | 2 | 6 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 134 |
| | 1 | 363 | 106 | 10 | 35 | 4 | 4 | 2 | 10 | 4 | 0 | 0 | 0 | 539 |
| 15:00 | 0 | 104 | 32 | 1 | 4 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 145 |
| 15:15 | 0 | 105 | 38 | 2 | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 157 |
| 15:30 | 0 | 167 | 37 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 214 |
| 15:45 | 1 | 124 | 43 | 3 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 176 |
| | 1 | 500 | 150 | 8 | 23 | 5 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 692 |
| 16:00 | 0 | 139 | 30 | 3 | 4 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 179 |
| 16:15 | 0 | 144 | 36 | 2 | 7 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 192 |
| 16:30 | 0 | 148 | 32 | 1 | 4 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 188 |
| 16:45 | 0 | 118 | 24 | 1 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 148 |
| | 0 | 549 | 122 | 7 | 19 | 2 | 1 | 0 | 5 | 2 | 0 | 0 | 0 | 707 |
| 17:00 | 0 | 129 | 24 | 1 | 9 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 166 |
| 17:15 | 0 | 132 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 148 |
| 17:30 | 0 | 109 | 27 | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 141 |
| 17:45 | 0 | 113 | 17 | 4 | 3 | 2 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 144 |
| | 0 | 483 | 83 | 6 | 14 | 5 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 599 |
| 18:00 | 0 | 113 | 14 | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 133 |
| 18:15 | 0 | 98 | 10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 18:30 | 0 | 91 | 6 | 0 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 103 |
| 18:45 | 0 | 70 | 12 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| | 0 | 372 | 42 | 1 | 12 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 431 |
| 19:00 | 0 | 74 | 15 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 92 |
| 19:15 | 0 | 80 | 21 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 105 |
| 19:30 | 0 | 53 | 6 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 63 |
| 19:45 | 0 | 58 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| | 0 | 265 | 47 | 1 | 7 | 1 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 325 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 4 | 3261 | 728 | 45 | 158 | 34 | 7 | 7 | 46 | 16 | 0 | 0 | 2 | 4308 |
| Percent | 0.1% | 75.7% | 16.9% | 1.0% | 3.7% | 0.8% | 0.2% | 0.2% | 1.1% | 0.4% | 0.0% | 0.0% | 0.0% | |
| Grand Total | 13 | 8669 | 1790 | 105 | 378 | 72 | 11 | 35 | 128 | 39 | 0 | 0 | 3 | 11243 |
| Percent | 0.1% | 77.1% | 15.9% | 0.9% | 3.4% | 0.6% | 0.1% | 0.3% | 1.1% | 0.3% | 0.0% | 0.0% | 0.0% | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start | 1 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | 76 | 81 | 86 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 9999 | Total |
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 0 | 0 | 0 | 6 | 54 | 235 | 205 | 47 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 556 |
| 18:00 | 1 | 0 | 1 | 2 | 57 | 207 | 142 | 30 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 447 |
| 19:00 | 2 | 0 | 0 | 9 | 43 | 121 | 99 | 23 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 300 |
| 20:00 | 2 | 0 | 1 | 5 | 36 | 83 | 61 | 15 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 205 |
| 21:00 | 1 | 0 | 0 | 2 | 25 | 59 | 44 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 22:00 | 0 | 0 | 0 | 5 | 18 | 27 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 23:00 | 0 | 0 | 0 | 1 | 10 | 31 | 28 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| Total | 6 | 0 | 2 | 30 | 243 | 763 | 603 | 133 | 19 | 4 | 0 | 1 | 0 | 0 | 0 | 1804 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 1 | 0 | 0 | 0 | 3 | 5 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 01:00 | 0 | 0 | 0 | 1 | 5 | 5 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 02:00 | 0 | 0 | 0 | 0 | 5 | 8 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 03:00 | 0 | 0 | 0 | 2 | 11 | 9 | 17 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 04:00 | 0 | 0 | 0 | 4 | 7 | 21 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 05:00 | 2 | 0 | 0 | 3 | 11 | 77 | 80 | 17 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 196 |
| 06:00 | 1 | 0 | 0 | 7 | 71 | 277 | 185 | 39 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 588 |
| 07:00 | 1 | 0 | 3 | 42 | 281 | 634 | 215 | 21 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1201 |
| 08:00 | 3 | 0 | 4 | 53 | 408 | 606 | 133 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1214 |
| 09:00 | 0 | 0 | 1 | 32 | 146 | 345 | 182 | 41 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 752 |
| 10:00 | 4 | 4 | 1 | 26 | 110 | 249 | 125 | 22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 543 |
| 11:00 | 0 | 0 | 0 | 7 | 100 | 244 | 110 | 17 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 481 |
| 12 PM | 0 | 0 | 1 | 24 | 116 | 248 | 113 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 524 |
| 13:00 | 2 | 0 | 2 | 6 | 115 | 223 | 131 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 491 |
| 14:00 | 4 | 1 | 0 | 14 | 114 | 255 | 129 | 19 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 539 |
| 15:00 | 0 | 0 | 3 | 12 | 110 | 342 | 204 | 19 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 692 |
| 16:00 | 5 | 0 | 0 | 9 | 119 | 355 | 183 | 33 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 707 |
| 17:00 | 1 | 0 | 1 | 6 | 69 | 272 | 207 | 37 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 599 |
| 18:00 | 0 | 0 | 0 | 6 | 46 | 202 | 152 | 21 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 431 |
| 19:00 | 1 | 0 | 0 | 1 | 41 | 158 | 99 | 22 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 325 |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 25 | 5 | 16 | 255 | 1888 | 4535 | 2300 | 366 | 36 | 10 | 3 | 0 | 0 | 0 | 0 | 9439 |
| Grand Total | 31 | 5 | 18 | 285 | 2131 | 5298 | 2903 | 499 | 55 | 14 | 3 | 1 | 0 | 0 | 0 | 11243 |

Stats

| | |
|---|---|
| 15th Percentile : | 38 MPH |
| 50th Percentile : | 42 MPH |
| 85th Percentile : | 48 MPH |
| 95th Percentile : | 50 MPH |
| Mean Speed(Average) : | 44 MPH |
| 10 MPH Pace Speed : | 41-50 MPH |
| Number in Pace : | 8201 |
| Percent in Pace : | 72.9% |
| Number of Vehicles > 55 MPH : | 73 |
| Percent of Vehicles > 55 MPH : | 0.6% |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 26 | 70 | 69 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 173 |
| 17:15 | 0 | 0 | 0 | 1 | 9 | 64 | 59 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 149 |
| 17:30 | 0 | 0 | 0 | 2 | 6 | 51 | 52 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 128 |
| 17:45 | 0 | 0 | 0 | 3 | 13 | 50 | 25 | 10 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 106 |
| | 0 | 0 | 0 | 6 | 54 | 235 | 205 | 47 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 556 |
| 18:00 | 0 | 0 | 0 | 0 | 7 | 55 | 39 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |
| 18:15 | 0 | 0 | 0 | 2 | 22 | 54 | 33 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 18:30 | 0 | 0 | 1 | 0 | 19 | 52 | 38 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 122 |
| 18:45 | 1 | 0 | 0 | 0 | 9 | 46 | 32 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 96 |
| | 1 | 0 | 1 | 2 | 57 | 207 | 142 | 30 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 447 |
| 19:00 | 0 | 0 | 0 | 3 | 16 | 33 | 25 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| 19:15 | 1 | 0 | 0 | 3 | 14 | 34 | 32 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 |
| 19:30 | 1 | 0 | 0 | 2 | 6 | 32 | 15 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 61 |
| 19:45 | 0 | 0 | 0 | 1 | 7 | 22 | 27 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 66 |
| | 2 | 0 | 0 | 9 | 43 | 121 | 99 | 23 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 300 |
| 20:00 | 0 | 0 | 0 | 1 | 10 | 23 | 26 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| 20:15 | 0 | 0 | 0 | 1 | 4 | 29 | 15 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 55 |
| 20:30 | 2 | 0 | 1 | 2 | 12 | 15 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 20:45 | 0 | 0 | 0 | 1 | 10 | 16 | 13 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| | 2 | 0 | 1 | 5 | 36 | 83 | 61 | 15 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 205 |
| 21:00 | 0 | 0 | 0 | 0 | 11 | 14 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 21:15 | 1 | 0 | 0 | 1 | 3 | 12 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 21:30 | 0 | 0 | 0 | 0 | 4 | 16 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 21:45 | 0 | 0 | 0 | 1 | 7 | 17 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| | 1 | 0 | 0 | 2 | 25 | 59 | 44 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 22:00 | 0 | 0 | 0 | 2 | 9 | 12 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 22:15 | 0 | 0 | 0 | 1 | 0 | 5 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 22:30 | 0 | 0 | 0 | 1 | 7 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 22:45 | 0 | 0 | 0 | 1 | 2 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| | 0 | 0 | 0 | 5 | 18 | 27 | 24 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 23:00 | 0 | 0 | 0 | 0 | 5 | 10 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 23:15 | 0 | 0 | 0 | 0 | 2 | 6 | 14 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 23:30 | 0 | 0 | 0 | 0 | 1 | 8 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 23:45 | 0 | 0 | 0 | 1 | 2 | 7 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| | 0 | 0 | 0 | 1 | 10 | 31 | 28 | 11 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| Total | 6 | 0 | 2 | 30 | 243 | 763 | 603 | 133 | 19 | 4 | 0 | 1 | 0 | 0 | 0 | 1804 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 00:15 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 00:30 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 00:45 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 1 | 0 | 0 | 0 | 3 | 5 | 10 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:15 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 01:30 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 01:45 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 0 | 0 | 0 | 1 | 5 | 5 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 02:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 02:15 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 02:30 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 02:45 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| | 0 | 0 | 0 | 0 | 5 | 8 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 03:00 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 03:15 | 0 | 0 | 0 | 0 | 5 | 2 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 03:30 | 0 | 0 | 0 | 2 | 0 | 2 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 03:45 | 0 | 0 | 0 | 0 | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| | 0 | 0 | 0 | 2 | 11 | 9 | 17 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 04:00 | 0 | 0 | 0 | 0 | 2 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 04:15 | 0 | 0 | 0 | 2 | 0 | 6 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 04:30 | 0 | 0 | 0 | 1 | 2 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 04:45 | 0 | 0 | 0 | 1 | 3 | 7 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| | 0 | 0 | 0 | 4 | 7 | 21 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 05:00 | 0 | 0 | 0 | 1 | 3 | 10 | 10 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 05:15 | 0 | 0 | 0 | 0 | 2 | 14 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 05:30 | 2 | 0 | 0 | 1 | 3 | 24 | 28 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| 05:45 | 0 | 0 | 0 | 1 | 3 | 29 | 30 | 4 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 71 |
| | 2 | 0 | 0 | 3 | 11 | 77 | 80 | 17 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 196 |
| 06:00 | 0 | 0 | 0 | 0 | 8 | 35 | 32 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 83 |
| 06:15 | 1 | 0 | 0 | 1 | 11 | 58 | 38 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| 06:30 | 0 | 0 | 0 | 4 | 28 | 71 | 46 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 163 |
| 06:45 | 0 | 0 | 0 | 2 | 24 | 113 | 69 | 13 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 224 |
| | 1 | 0 | 0 | 7 | 71 | 277 | 185 | 39 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 588 |
| 07:00 | 0 | 0 | 0 | 3 | 20 | 104 | 58 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 196 |
| 07:15 | 0 | 0 | 0 | 4 | 55 | 203 | 63 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 330 |
| 07:30 | 0 | 0 | 0 | 0 | 55 | 196 | 67 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 323 |
| 07:45 | 1 | 0 | 3 | 35 | 151 | 131 | 27 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 352 |
| | 1 | 0 | 3 | 42 | 281 | 634 | 215 | 21 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1201 |
| 08:00 | 1 | 0 | 0 | 22 | 116 | 154 | 30 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 325 |
| 08:15 | 2 | 0 | 0 | 14 | 96 | 162 | 40 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 316 |
| 08:30 | 0 | 0 | 0 | 4 | 90 | 167 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 297 |
| 08:45 | 0 | 0 | 4 | 13 | 106 | 123 | 28 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 276 |
| | 3 | 0 | 4 | 53 | 408 | 606 | 133 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1214 |
| 09:00 | 0 | 0 | 1 | 19 | 65 | 101 | 41 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 233 |
| 09:15 | 0 | 0 | 0 | 2 | 33 | 92 | 62 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 202 |
| 09:30 | 0 | 0 | 0 | 8 | 25 | 69 | 36 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 157 |
| 09:45 | 0 | 0 | 0 | 3 | 23 | 83 | 43 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 160 |
| | 0 | 0 | 1 | 32 | 146 | 345 | 182 | 41 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 752 |
| 10:00 | 0 | 0 | 0 | 3 | 20 | 57 | 27 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 10:15 | 1 | 0 | 0 | 8 | 30 | 49 | 23 | 8 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 121 |
| 10:30 | 2 | 4 | 0 | 10 | 34 | 77 | 27 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 157 |
| 10:45 | 1 | 0 | 1 | 5 | 26 | 66 | 48 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| | 4 | 4 | 1 | 26 | 110 | 249 | 125 | 22 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 543 |
| 11:00 | 0 | 0 | 0 | 3 | 28 | 44 | 27 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 110 |
| 11:15 | 0 | 0 | 0 | 3 | 26 | 65 | 29 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 11:30 | 0 | 0 | 0 | 1 | 29 | 61 | 29 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| 11:45 | 0 | 0 | 0 | 0 | 17 | 74 | 25 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 117 |
| | 0 | 0 | 0 | 7 | 100 | 244 | 110 | 17 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 481 |
| Total | 12 | 4 | 9 | 177 | 1158 | 2480 | 1082 | 181 | 22 | 5 | 1 | 0 | 0 | 0 | 0 | 5131 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

Northbound

| Start Time | 1 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | 76 80 | 81 85 | 86 9999 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | 0 | 0 | 1 | 6 | 26 | 51 | 29 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| 12:15 | 0 | 0 | 0 | 4 | 32 | 63 | 27 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| 12:30 | 0 | 0 | 0 | 5 | 27 | 70 | 29 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 135 |
| 12:45 | 0 | 0 | 0 | 9 | 31 | 64 | 28 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 |
| | 0 | 0 | 1 | 24 | 116 | 248 | 113 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 524 |
| 13:00 | 2 | 0 | 1 | 1 | 31 | 58 | 37 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 |
| 13:15 | 0 | 0 | 0 | 3 | 24 | 60 | 22 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 13:30 | 0 | 0 | 0 | 0 | 38 | 41 | 32 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 |
| 13:45 | 0 | 0 | 1 | 2 | 22 | 64 | 40 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 136 |
| | 2 | 0 | 2 | 6 | 115 | 223 | 131 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 491 |
| 14:00 | 1 | 0 | 0 | 0 | 19 | 67 | 33 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 129 |
| 14:15 | 2 | 1 | 0 | 6 | 30 | 64 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139 |
| 14:30 | 0 | 0 | 0 | 2 | 29 | 69 | 33 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 137 |
| 14:45 | 1 | 0 | 0 | 6 | 36 | 55 | 28 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 |
| | 4 | 1 | 0 | 14 | 114 | 255 | 129 | 19 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 539 |
| 15:00 | 0 | 0 | 3 | 1 | 23 | 68 | 46 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 145 |
| 15:15 | 0 | 0 | 0 | 3 | 41 | 74 | 33 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 157 |
| 15:30 | 0 | 0 | 0 | 2 | 27 | 108 | 68 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 214 |
| 15:45 | 0 | 0 | 0 | 6 | 19 | 92 | 57 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176 |
| | 0 | 0 | 3 | 12 | 110 | 342 | 204 | 19 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 692 |
| 16:00 | 5 | 0 | 0 | 7 | 35 | 91 | 36 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 |
| 16:15 | 0 | 0 | 0 | 1 | 37 | 97 | 51 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 192 |
| 16:30 | 0 | 0 | 0 | 1 | 24 | 100 | 53 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 188 |
| 16:45 | 0 | 0 | 0 | 0 | 23 | 67 | 43 | 14 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 148 |
| | 5 | 0 | 0 | 9 | 119 | 355 | 183 | 33 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 707 |
| 17:00 | 0 | 0 | 1 | 1 | 14 | 93 | 45 | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 166 |
| 17:15 | 0 | 0 | 0 | 0 | 17 | 70 | 53 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 148 |
| 17:30 | 1 | 0 | 0 | 1 | 14 | 57 | 61 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 141 |
| 17:45 | 0 | 0 | 0 | 4 | 24 | 52 | 48 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 144 |
| | 1 | 0 | 1 | 6 | 69 | 272 | 207 | 37 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 599 |
| 18:00 | 0 | 0 | 0 | 4 | 21 | 52 | 44 | 10 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 133 |
| 18:15 | 0 | 0 | 0 | 0 | 11 | 55 | 39 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 18:30 | 0 | 0 | 0 | 0 | 13 | 50 | 35 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| 18:45 | 0 | 0 | 0 | 2 | 1 | 45 | 34 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| | 0 | 0 | 0 | 6 | 46 | 202 | 152 | 21 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 431 |
| 19:00 | 0 | 0 | 0 | 1 | 6 | 43 | 34 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| 19:15 | 0 | 0 | 0 | 0 | 21 | 52 | 28 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 105 |
| 19:30 | 1 | 0 | 0 | 0 | 8 | 37 | 12 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| 19:45 | 0 | 0 | 0 | 0 | 6 | 26 | 25 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 65 |
| | 1 | 0 | 0 | 1 | 41 | 158 | 99 | 22 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 325 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 13 | 1 | 7 | 78 | 730 | 2055 | 1218 | 185 | 14 | 5 | 2 | 0 | 0 | 0 | 0 | 4308 |
| Total | 31 | 5 | 18 | 285 | 2131 | 5298 | 2903 | 499 | 55 | 14 | 3 | 1 | 0 | 0 | 0 | 11243 |

Stats

| | |
|---|---|
| 15th Percentile : | 38 MPH |
| 50th Percentile : | 42 MPH |
| 85th Percentile : | 48 MPH |
| 95th Percentile : | 50 MPH |
| Mean Speed(Average) : | 44 MPH |
| 10 MPH Pace Speed : | 41-50 MPH |
| Number in Pace : | 8201 |
| Percent in Pace : | 72.9% |
| Number of Vehicles > 55 MPH : | 73 |
| Percent of Vehicles > 55 MPH : | 0.6% |

## *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramo from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

| Start Time | Mon 30-Sep-19 | Tue 01-Oct-19 | Wed 02-Oct-19 | Thu 03-Oct-19 | Fri 04-Oct-19 | | Average Day | | Sat 05-Oct-19 | Sun 06-Oct-19 | | Week Average | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 AM | * | * | 23 | * | * | | 23 | | * | * | | 23 | | |
| 01:00 | * | * | 17 | * | * | | 17 | | * | * | | 17 | | |
| 02:00 | * | * | 21 | * | * | | 21 | | * | * | | 21 | | |
| 03:00 | * | * | 46 | * | * | | 46 | | * | * | | 46 | | |
| 04:00 | * | * | 49 | * | * | | 49 | | * | * | | 49 | | |
| 05:00 | * | * | 196 | * | * | | 196 | | * | * | | 196 | | |
| 06:00 | * | * | 588 | * | * | | 588 | | * | * | | 588 | | |
| 07:00 | * | * | 1201 | * | * | | 1201 | | * | * | | 1201 | | |
| 08:00 | * | * | **1214** | * | * | | **1214** | | * | * | | **1214** | | |
| 09:00 | * | * | 752 | * | * | | 752 | | * | * | | 752 | | |
| 10:00 | * | * | 543 | * | * | | 543 | | * | * | | 543 | | |
| 11:00 | * | * | 481 | * | * | | 481 | | * | * | | 481 | | |
| 12:00 PM | * | * | 524 | * | * | | 524 | | * | * | | 524 | | |
| 01:00 | * | * | 491 | * | * | | 491 | | * | * | | 491 | | |
| 02:00 | * | * | 539 | * | * | | 539 | | * | * | | 539 | | |
| 03:00 | * | * | 692 | * | * | | 692 | | * | * | | 692 | | |
| 04:00 | * | * | **707** | * | * | | **707** | | * | * | | **707** | | |
| 05:00 | * | **556** | 599 | * | * | | 578 | | * | * | | 578 | | |
| 06:00 | * | 447 | 431 | * | * | | 439 | | * | * | | 439 | | |
| 07:00 | * | 300 | 325 | * | * | | 312 | | * | * | | 312 | | |
| 08:00 | * | 205 | * | * | * | | 205 | | * | * | | 205 | | |
| 09:00 | * | 135 | * | * | * | | 135 | | * | * | | 135 | | |
| 10:00 | * | 78 | * | * | * | | 78 | | * | * | | 78 | | |
| 11:00 | * | 83 | * | * | * | | 83 | | * | * | | 83 | | |
| Day Total | 0 | 1804 | 9439 | 0 | 0 | | 9914 | | 0 | 0 | | 9914 | | |
| % Avg. WkDay | 0.0% | 18.2% | 95.2% | 0.0% | 0.0% | | | | | | | | | |
| % Avg. Week | 0.0% | 18.2% | 95.2% | 0.0% | 0.0% | | 100.0% | | 0.0% | 0.0% | | | | |
| AM Peak | - | - | 08:00 | - | - | - | 08:00 | - | - | - | - | 08:00 | - | - |
| Vol. | - | - | 1214 | - | - | - | 1214 | - | - | - | - | 1214 | - | - |
| PM Peak | - | 17:00 | 16:00 | - | - | - | 16:00 | - | - | - | - | 16:00 | - | - |
| Vol. | - | 556 | 707 | - | - | - | 707 | - | - | - | - | 707 | - | - |
| Grand Total | 0 | 1804 | 9439 | 0 | 0 | | 9914 | | 0 | 0 | | 9914 | | |

| | | |
|---|---|---|
| ADT | ADT 9,882 | AADT 9,882 |

## *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramo from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

| Start | 01-Oct-19 | Northbound | | Hour Totals | |
|---|---|---|---|---|---|
| Time | Tue | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | * | * | | |
| 12:15 | | * | * | | |
| 12:30 | | * | * | | |
| 12:45 | | * | * | 0 | 0 |
| 01:00 | | * | * | | |
| 01:15 | | * | * | | |
| 01:30 | | * | * | | |
| 01:45 | | * | * | 0 | 0 |
| 02:00 | | * | * | | |
| 02:15 | | * | * | | |
| 02:30 | | * | * | | |
| 02:45 | | * | * | 0 | 0 |
| 03:00 | | * | * | | |
| 03:15 | | * | * | | |
| 03:30 | | * | * | | |
| 03:45 | | * | * | 0 | 0 |
| 04:00 | | * | * | | |
| 04:15 | | * | * | | |
| 04:30 | | * | * | | |
| 04:45 | | * | * | 0 | 0 |
| 05:00 | | * | 173 | | |
| 05:15 | | * | 149 | | |
| 05:30 | | * | 128 | | |
| 05:45 | | * | 106 | 0 | 556 |
| 06:00 | | * | 107 | | |
| 06:15 | | * | 122 | | |
| 06:30 | | * | 122 | | |
| 06:45 | | * | 96 | 0 | 447 |
| 07:00 | | * | 84 | | |
| 07:15 | | * | 89 | | |
| 07:30 | | * | 61 | | |
| 07:45 | | * | 66 | 0 | 300 |
| 08:00 | | * | 65 | | |
| 08:15 | | * | 55 | | |
| 08:30 | | * | 40 | | |
| 08:45 | | * | 45 | 0 | 205 |
| 09:00 | | * | 38 | | |
| 09:15 | | * | 26 | | |
| 09:30 | | * | 35 | | |
| 09:45 | | * | 36 | 0 | 135 |
| 10:00 | | * | 26 | | |
| 10:15 | | * | 20 | | |
| 10:30 | | * | 20 | | |
| 10:45 | | * | 12 | 0 | 78 |
| 11:00 | | * | 23 | | |
| 11:15 | | * | 29 | | |
| 11:30 | | * | 16 | | |
| 11:45 | | * | 15 | 0 | 83 |
| Total | | 0 | 1804 | | |
| Percent | | 0.0% | 100.0% | | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramo from US 9W
Segment: 490' E of US 9W
Ctr#: 35246

GPS: 42.632459, -73.774014

| Start | 02-Oct-19 | Northbound | | Hour Totals | |
|---|---|---|---|---|---|
| Time | Wed | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | 7 | 118 | | |
| 12:15 | | 6 | 130 | | |
| 12:30 | | 4 | 135 | | |
| 12:45 | | 6 | 141 | 23 | 524 |
| 01:00 | | 4 | 132 | | |
| 01:15 | | 5 | 110 | | |
| 01:30 | | 4 | 113 | | |
| 01:45 | | 4 | 136 | 17 | 491 |
| 02:00 | | 3 | 129 | | |
| 02:15 | | 3 | 139 | | |
| 02:30 | | 5 | 137 | | |
| 02:45 | | 10 | 134 | 21 | 539 |
| 03:00 | | 12 | 145 | | |
| 03:15 | | 12 | 157 | | |
| 03:30 | | 13 | 214 | | |
| 03:45 | | 9 | 176 | 46 | 692 |
| 04:00 | | 10 | 179 | | |
| 04:15 | | 15 | 192 | | |
| 04:30 | | 9 | 188 | | |
| 04:45 | | 15 | 148 | 49 | 707 |
| 05:00 | | 30 | 166 | | |
| 05:15 | | 30 | 148 | | |
| 05:30 | | 65 | 141 | | |
| 05:45 | | 71 | 144 | 196 | 599 |
| 06:00 | | 83 | 133 | | |
| 06:15 | | 118 | 110 | | |
| 06:30 | | 163 | 103 | | |
| 06:45 | | 224 | 85 | 588 | 431 |
| 07:00 | | 196 | 92 | | |
| 07:15 | | 330 | 105 | | |
| 07:30 | | 323 | 63 | | |
| 07:45 | | 352 | 65 | 1201 | 325 |
| 08:00 | | 325 | 0 | | |
| 08:15 | | 316 | * | | |
| 08:30 | | 297 | * | | |
| 08:45 | | 276 | * | 1214 | 0 |
| 09:00 | | 233 | * | | |
| 09:15 | | 202 | * | | |
| 09:30 | | 157 | * | | |
| 09:45 | | 160 | * | 752 | 0 |
| 10:00 | | 115 | * | | |
| 10:15 | | 121 | * | | |
| 10:30 | | 157 | * | | |
| 10:45 | | 150 | * | 543 | 0 |
| 11:00 | | 110 | * | | |
| 11:15 | | 130 | * | | |
| 11:30 | | 124 | * | | |
| 11:45 | | 117 | * | 481 | 0 |
| Total | | 5131 | 4308 | | |
| Percent | | 54.4% | 45.6% | | |
| Grand Total | | 5131 | 6112 | | |
| Percent | | 45.6% | 54.4% | | |
| ADT | | ADT 9,882 | | AADT 9,882 | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 | Class 7 | Class 8 | Class 9 | Class 10 | Class 11 | Class 12 | Class 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 0 | **427** | **35** | **2** | **7** | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | **476** |
| 18:00 | **2** | 315 | 15 | 2 | 4 | **2** | 0 | 1 | **5** | 1 | 0 | 0 | 0 | 347 |
| 19:00 | 0 | 230 | 14 | 1 | 5 | 1 | 0 | **2** | 3 | 0 | 0 | 0 | 0 | 256 |
| 20:00 | 0 | 154 | 10 | 1 | 2 | 0 | 0 | 0 | 3 | **3** | 0 | 0 | 0 | 173 |
| 21:00 | 0 | 141 | 8 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 154 |
| 22:00 | 0 | 139 | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 23:00 | 0 | 122 | 10 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 135 |
| Day Total | 2 | 1528 | 101 | 6 | 20 | 4 | 0 | 5 | 20 | 5 | 0 | 0 | 0 | 1691 |
| Percent | 0.1% | 90.4% | 6.0% | 0.4% | 1.2% | 0.2% | 0.0% | 0.3% | 1.2% | 0.3% | 0.0% | 0.0% | 0.0% | |
| AM Peak Vol. | | | | | | | | | | | | | | |
| PM Peak | 18:00 | 17:00 | 17:00 | 17:00 | 17:00 | 18:00 | | 19:00 | 18:00 | 20:00 | | | | 17:00 |
| Vol. | 2 | 427 | 35 | 2 | 7 | 2 | | 2 | 5 | 3 | | | | 476 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 | Class 7 | Class 8 | Class 9 | Class 10 | Class 11 | Class 12 | Class 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 92 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 |
| 01:00 | 0 | 61 | 5 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 69 |
| 02:00 | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 39 |
| 03:00 | 0 | 42 | 4 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 50 |
| 04:00 | 0 | 75 | 9 | 0 | 4 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 92 |
| 05:00 | 0 | 201 | 25 | 1 | 4 | 0 | 0 | 2 | 5 | 3 | 0 | 0 | 0 | 241 |
| 06:00 | 0 | 527 | **89** | 1 | **14** | 1 | 0 | **5** | **14** | 3 | 0 | 0 | 0 | 654 |
| 07:00 | 1 | 1204 | 81 | 4 | 13 | 4 | 0 | 0 | 4 | **6** | 0 | 0 | 0 | 1317 |
| 08:00 | **3** | **1340** | 76 | 1 | 10 | 4 | 0 | 3 | 9 | 6 | 0 | 0 | 0 | **1452** |
| 09:00 | 0 | 643 | 51 | 3 | 13 | **6** | **1** | 2 | 7 | 2 | 0 | 0 | 0 | 728 |
| 10:00 | 1 | 477 | 52 | **5** | 5 | 2 | 0 | 1 | 7 | 1 | 0 | 0 | 0 | 551 |
| 11:00 | 0 | 415 | 52 | 2 | 12 | 0 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 490 |
| 12 PM | 2 | 395 | 37 | 1 | 9 | 1 | 0 | 1 | **8** | **3** | 0 | 0 | 0 | 457 |
| 13:00 | 0 | 425 | 28 | 1 | 5 | 1 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 465 |
| 14:00 | 1 | 464 | 42 | **4** | 6 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 523 |
| 15:00 | **4** | **471** | **46** | 0 | **10** | **2** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | **534** |
| 16:00 | 0 | 467 | 37 | 2 | 10 | 1 | **1** | **2** | 2 | 0 | 0 | 0 | 0 | 522 |
| 17:00 | 0 | 460 | 25 | 2 | 10 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 501 |
| 18:00 | 0 | 304 | 16 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 327 |
| 19:00 | 0 | 231 | 9 | 1 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 246 |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Day Total | 12 | 8328 | 688 | 32 | 133 | 29 | 2 | 23 | 78 | 29 | 0 | 0 | 0 | 9354 |
| Percent | 0.1% | 89.0% | 7.4% | 0.3% | 1.4% | 0.3% | 0.0% | 0.2% | 0.8% | 0.3% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 08:00 | 08:00 | 06:00 | 10:00 | 06:00 | 09:00 | 09:00 | 06:00 | 06:00 | 07:00 | | | | 08:00 |
| Vol. | 3 | 1340 | 89 | 5 | 14 | 6 | 1 | 5 | 14 | 6 | | | | 1452 |
| PM Peak | 15:00 | 15:00 | 15:00 | 14:00 | 15:00 | 15:00 | 16:00 | 16:00 | 12:00 | 12:00 | | | | 15:00 |
| Vol. | 4 | 471 | 46 | 4 | 10 | 2 | 1 | 2 | 8 | 3 | | | | 534 |
| Grand Total | 14 | 9856 | 789 | 38 | 153 | 33 | 2 | 28 | 98 | 34 | 0 | 0 | 0 | 11045 |
| Percent | 0.1% | 89.2% | 7.1% | 0.3% | 1.4% | 0.3% | 0.0% | 0.3% | 0.9% | 0.3% | 0.0% | 0.0% | 0.0% | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment" 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 | Class 7 | Class 8 | Class 9 | Class 10 | Class 11 | Class 12 | Class 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment" 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 | Class 7 | Class 8 | Class 9 | Class 10 | Class 11 | Class 12 | Class 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 124 | 7 | 1 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 137 |
| 17:15 | 0 | 96 | 11 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 109 |
| 17:30 | 0 | 113 | 10 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 126 |
| 17:45 | 0 | 94 | 7 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 104 |
| | 0 | 427 | 35 | 2 | 7 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 476 |
| 18:00 | 0 | 97 | 4 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 106 |
| 18:15 | 0 | 78 | 5 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 88 |
| 18:30 | 0 | 85 | 5 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 93 |
| 18:45 | 2 | 55 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 60 |
| | 2 | 315 | 15 | 2 | 4 | 2 | 0 | 1 | 5 | 1 | 0 | 0 | 0 | 347 |
| 19:00 | 0 | 70 | 4 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| 19:15 | 0 | 51 | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 58 |
| 19:30 | 0 | 60 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 65 |
| 19:45 | 0 | 49 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 55 |
| | 0 | 230 | 14 | 1 | 5 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 256 |
| 20:00 | 0 | 42 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 49 |
| 20:15 | 0 | 38 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 41 |
| 20:30 | 0 | 41 | 2 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 47 |
| 20:45 | 0 | 33 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 36 |
| | 0 | 154 | 10 | 1 | 2 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 173 |
| 21:00 | 0 | 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 21:15 | 0 | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 32 |
| 21:30 | 0 | 35 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 40 |
| 21:45 | 0 | 37 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 42 |
| | 0 | 141 | 8 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 154 |
| 22:00 | 0 | 35 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| 22:15 | 0 | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 22:30 | 0 | 40 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 22:45 | 0 | 34 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| | 0 | 139 | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 23:00 | 0 | 31 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 34 |
| 23:15 | 0 | 34 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 23:30 | 0 | 30 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 34 |
| 23:45 | 0 | 27 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| | 0 | 122 | 10 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 135 |
| Total | 2 | 1528 | 101 | 6 | 20 | 4 | 0 | 5 | 20 | 5 | 0 | 0 | 0 | 1691 |
| Percent | 0.1% | 90.4% | 6.0% | 0.4% | 1.2% | 0.2% | 0.0% | 0.3% | 1.2% | 0.3% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment" 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 | Class 7 | Class 8 | Class 9 | Class 10 | Class 11 | Class 12 | Class 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 37 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 00:15 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 00:30 | 0 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 00:45 | 0 | 11 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| | 0 | 92 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 |
| 01:00 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 01:15 | 0 | 6 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 01:30 | 0 | 14 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 01:45 | 0 | 20 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 23 |
| | 0 | 61 | 5 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 69 |
| 02:00 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 02:15 | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 13 |
| 02:30 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 02:45 | 0 | 13 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 16 |
| | 0 | 34 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 39 |
| 03:00 | 0 | 21 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 24 |
| 03:15 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| 03:30 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| 03:45 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 8 |
| | 0 | 42 | 4 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 50 |
| 04:00 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 04:15 | 0 | 24 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 04:30 | 0 | 21 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 24 |
| 04:45 | 0 | 24 | 7 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| | 0 | 75 | 9 | 0 | 4 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 92 |
| 05:00 | 0 | 53 | 4 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 63 |
| 05:15 | 0 | 38 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 05:30 | 0 | 46 | 6 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 56 |
| 05:45 | 0 | 64 | 12 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 81 |
| | 0 | 201 | 25 | 1 | 4 | 0 | 0 | 2 | 5 | 3 | 0 | 0 | 0 | 241 |
| 06:00 | 0 | 63 | 16 | 0 | 2 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 0 | 87 |
| 06:15 | 0 | 97 | 19 | 0 | 2 | 1 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 126 |
| 06:30 | 0 | 167 | 25 | 1 | 5 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 0 | 204 |
| 06:45 | 0 | 200 | 29 | 0 | 5 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 237 |
| | 0 | 527 | 89 | 1 | 14 | 1 | 0 | 5 | 14 | 3 | 0 | 0 | 0 | 654 |
| 07:00 | 0 | 241 | 14 | 1 | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 263 |
| 07:15 | 0 | 284 | 25 | 1 | 3 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 316 |
| 07:30 | 1 | 280 | 14 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 302 |
| 07:45 | 0 | 399 | 28 | 0 | 3 | 3 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 436 |
| | 1 | 1204 | 81 | 4 | 13 | 4 | 0 | 0 | 4 | 6 | 0 | 0 | 0 | 1317 |
| 08:00 | 2 | 343 | 18 | 0 | 3 | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 372 |
| 08:15 | 0 | 351 | 20 | 0 | 2 | 3 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 380 |
| 08:30 | 1 | 320 | 16 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 342 |
| 08:45 | 0 | 326 | 22 | 1 | 3 | 0 | 0 | 1 | 4 | 1 | 0 | 0 | 0 | 358 |
| | 3 | 1340 | 76 | 1 | 10 | 4 | 0 | 3 | 9 | 6 | 0 | 0 | 0 | 1452 |
| 09:00 | 0 | 199 | 11 | 3 | 6 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 222 |
| 09:15 | 0 | 159 | 15 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 177 |
| 09:30 | 0 | 145 | 15 | 0 | 4 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 167 |
| 09:45 | 0 | 140 | 10 | 0 | 2 | 4 | 0 | 1 | 4 | 1 | 0 | 0 | 0 | 162 |
| | 0 | 643 | 51 | 3 | 13 | 6 | 1 | 2 | 7 | 2 | 0 | 0 | 0 | 728 |
| 10:00 | 0 | 110 | 11 | 3 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 128 |
| 10:15 | 0 | 127 | 14 | 1 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 147 |
| 10:30 | 1 | 119 | 14 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 139 |
| 10:45 | 0 | 121 | 13 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 137 |
| | 1 | 477 | 52 | 5 | 5 | 2 | 0 | 1 | 7 | 1 | 0 | 0 | 0 | 551 |
| 11:00 | 0 | 110 | 16 | 0 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 132 |
| 11:15 | 0 | 121 | 10 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 |
| 11:30 | 0 | 86 | 18 | 0 | 4 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 111 |
| 11:45 | 0 | 98 | 8 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 0 | 113 |
| | 0 | 415 | 52 | 2 | 12 | 0 | 0 | 3 | 4 | 2 | 0 | 0 | 0 | 490 |
| Total | 5 | 5111 | 448 | 19 | 76 | 21 | 1 | 18 | 56 | 24 | 0 | 0 | 0 | 5779 |
| Percent | 0.1% | 88.4% | 7.8% | 0.3% | 1.3% | 0.4% | 0.0% | 0.3% | 1.0% | 0.4% | 0.0% | 0.0% | 0.0% | |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment" 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | Class 1 | Class 2 | Class 3 | Class 4 | Class 5 | Class 6 | Class 7 | Class 8 | Class 9 | Class 10 | Class 11 | Class 12 | Class 13 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | 0 | 93 | 7 | 1 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 107 |
| 12:15 | 0 | 106 | 9 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 120 |
| 12:30 | 1 | 106 | 9 | 0 | 3 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 123 |
| 12:45 | 1 | 90 | 12 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 107 |
| | 2 | 395 | 37 | 1 | 9 | 1 | 0 | 1 | 8 | 3 | 0 | 0 | 0 | 457 |
| 13:00 | 0 | 110 | 7 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 120 |
| 13:15 | 0 | 116 | 10 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 129 |
| 13:30 | 0 | 99 | 4 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 106 |
| 13:45 | 0 | 100 | 7 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 110 |
| | 0 | 425 | 28 | 1 | 5 | 1 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 465 |
| 14:00 | 1 | 101 | 6 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 112 |
| 14:15 | 0 | 110 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 122 |
| 14:30 | 0 | 120 | 11 | 1 | 4 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 139 |
| 14:45 | 0 | 133 | 13 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 150 |
| | 1 | 464 | 42 | 4 | 6 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 523 |
| 15:00 | 0 | 104 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 112 |
| 15:15 | 1 | 114 | 14 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 133 |
| 15:30 | 3 | 144 | 10 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 162 |
| 15:45 | 0 | 109 | 15 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 127 |
| | 4 | 471 | 46 | 0 | 10 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 534 |
| 16:00 | 0 | 129 | 12 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 147 |
| 16:15 | 0 | 107 | 7 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 118 |
| 16:30 | 0 | 113 | 10 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 125 |
| 16:45 | 0 | 118 | 8 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 132 |
| | 0 | 467 | 37 | 2 | 10 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 522 |
| 17:00 | 0 | 155 | 9 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 168 |
| 17:15 | 0 | 128 | 9 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 |
| 17:30 | 0 | 93 | 4 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 101 |
| 17:45 | 0 | 84 | 3 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 |
| | 0 | 460 | 25 | 2 | 10 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 501 |
| 18:00 | 0 | 79 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 |
| 18:15 | 0 | 69 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 |
| 18:30 | 0 | 91 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| 18:45 | 0 | 65 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| | 0 | 304 | 16 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 327 |
| 19:00 | 0 | 50 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| 19:15 | 0 | 67 | 3 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 74 |
| 19:30 | 0 | 55 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 59 |
| 19:45 | 0 | 59 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| | 0 | 231 | 9 | 1 | 2 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 246 |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 20:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 7 | 3217 | 240 | 13 | 57 | 8 | 1 | 5 | 22 | 5 | 0 | 0 | 0 | 3575 |
| Percent | 0.2% | 90.0% | 6.7% | 0.4% | 1.6% | 0.2% | 0.0% | 0.1% | 0.6% | 0.1% | 0.0% | 0.0% | 0.0% | |
| Grand Total | 14 | 9856 | 789 | 38 | 153 | 33 | 2 | 28 | 98 | 34 | 0 | 0 | 0 | 11045 |
| Percent | 0.1% | 89.2% | 7.1% | 0.3% | 1.4% | 0.3% | 0.0% | 0.3% | 0.9% | 0.3% | 0.0% | 0.0% | 0.0% | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | 0 5 | 6 10 | 11 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 75 | 178 | 174 | 30 | 5 | 0 | 0 | 476 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 56 | 142 | 112 | 17 | 4 | 0 | 0 | 347 |
| 19:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 90 | 99 | 43 | 5 | 0 | 0 | 0 | 256 |
| 20:00 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 16 | 49 | 79 | 20 | 3 | 1 | 0 | 0 | 173 |
| 21:00 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 14 | 45 | 60 | 28 | 4 | 0 | 0 | 0 | 154 |
| 22:00 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 10 | 57 | 55 | 20 | 4 | 0 | 0 | 0 | 150 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 24 | 51 | 31 | 16 | 3 | 0 | 0 | 135 |
| Total | 0 | 0 | 0 | 0 | 1 | 2 | 15 | 93 | 396 | 664 | 428 | 79 | 13 | 0 | 0 | 1691 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | 0 5 | 6 10 | 11 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 32 | 52 | 7 | 0 | 1 | 0 | 0 | 96 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 28 | 33 | 4 | 1 | 0 | 0 | 0 | 69 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 6 | 19 | 5 | 0 | 1 | 0 | 0 | 39 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 11 | 21 | 13 | 2 | 0 | 1 | 0 | 50 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 32 | 37 | 14 | 4 | 0 | 1 | 0 | 92 |
| 05:00 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 69 | 109 | 40 | 11 | 0 | 0 | 0 | 241 |
| 06:00 | 0 | 0 | 0 | 1 | 0 | 1 | 12 | 48 | 169 | 304 | 99 | 19 | 1 | 0 | 0 | 654 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 205 | 486 | 446 | 134 | 22 | 2 | 0 | 0 | 1317 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 2 | 40 | 238 | 524 | 502 | 123 | 21 | 2 | 0 | 0 | 1452 |
| 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 40 | 151 | 356 | 151 | 25 | 0 | 0 | 0 | 728 |
| 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 45 | 121 | 213 | 126 | 29 | 6 | 0 | 0 | 551 |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 22 | 134 | 218 | 88 | 12 | 2 | 1 | 0 | 490 |
| 12 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 23 | 110 | 233 | 75 | 9 | 4 | 0 | 0 | 457 |
| 13:00 | 0 | 0 | 1 | 0 | 0 | 6 | 6 | 27 | 161 | 189 | 58 | 13 | 4 | 0 | 0 | 465 |
| 14:00 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 33 | 158 | 250 | 68 | 9 | 1 | 0 | 0 | 523 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 12 | 109 | 283 | 108 | 16 | 2 | 1 | 0 | 534 |
| 16:00 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 23 | 128 | 225 | 128 | 13 | 2 | 0 | 0 | 522 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 65 | 243 | 153 | 28 | 3 | 0 | 0 | 501 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 70 | 154 | 85 | 9 | 2 | 0 | 0 | 327 |
| 19:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 66 | 110 | 48 | 9 | 1 | 1 | 0 | 246 |
| 20:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 21:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 22:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 23:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| Total | 0 | 2 | 1 | 1 | 0 | 14 | 128 | 763 | 2630 | 3997 | 1527 | 252 | 34 | 5 | 0 | 9354 |
| Grand Total | 0 | 2 | 1 | 1 | 1 | 16 | 143 | 856 | 3026 | 4661 | 1955 | 331 | 47 | 5 | 0 | 11045 |

Stats

| | |
|---|---|
| 15th Percentile : | 41 MPH |
| 50th Percentile : | 46 MPH |
| 85th Percentile : | 51 MPH |
| 95th Percentile : | 54 MPH |
| Mean Speed(Average) : | 47 MPH |
| 10 MPH Pace Speed : | 41-50 MPH |
| Number in Pace : | 7687 |
| Percent in Pace : | 69.6% |
| Number of Vehicles > 55 MPH : | 383 |
| Percent of Vehicles > 55 MPH : | 3.5% |

# ***Tri-State Traffic Data Inc***

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start | 0 | 6 | 11 | 16 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 | 61 | 66 | 71 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | Total |
| 10/01/19 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 00:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 01:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 02:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 03:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 04:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 05:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 06:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 07:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 08:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start<br>Time | 0<br>5 | 6<br>10 | 11<br>15 | 16<br>20 | 21<br>25 | 26<br>30 | 31<br>35 | 36<br>40 | 41<br>45 | 46<br>50 | 51<br>55 | 56<br>60 | 61<br>65 | 66<br>70 | 71<br>75 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 12:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 13:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 14:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 15:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 16:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 17 | 59 | 47 | 9 | 1 | 0 | 0 | 137 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 | 30 | 53 | 11 | 0 | 0 | 0 | 109 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 30 | 45 | 38 | 4 | 2 | 0 | 0 | 126 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 44 | 36 | 6 | 2 | 0 | 0 | 104 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 75 | 178 | 174 | 30 | 5 | 0 | 0 | 476 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 11 | 41 | 45 | 7 | 0 | 0 | 0 | 106 |
| 18:15 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 14 | 28 | 32 | 5 | 3 | 0 | 0 | 88 |
| 18:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 48 | 27 | 2 | 0 | 0 | 0 | 93 |
| 18:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 18 | 25 | 8 | 3 | 1 | 0 | 0 | 60 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 13 | 56 | 142 | 112 | 17 | 4 | 0 | 0 | 347 |
| 19:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 35 | 18 | 15 | 2 | 0 | 0 | 0 | 78 |
| 19:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 19 | 23 | 11 | 3 | 0 | 0 | 0 | 58 |
| 19:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 17 | 35 | 9 | 0 | 0 | 0 | 0 | 65 |
| 19:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 19 | 23 | 8 | 0 | 0 | 0 | 0 | 55 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 90 | 99 | 43 | 5 | 0 | 0 | 0 | 256 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 9 | 28 | 4 | 1 | 1 | 0 | 0 | 49 |
| 20:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 20 | 9 | 2 | 0 | 0 | 0 | 41 |
| 20:30 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 | 17 | 17 | 4 | 0 | 0 | 0 | 0 | 47 |
| 20:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 14 | 14 | 3 | 0 | 0 | 0 | 0 | 36 |
| | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 16 | 49 | 79 | 20 | 3 | 1 | 0 | 0 | 173 |
| 21:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 25 | 8 | 2 | 0 | 0 | 0 | 40 |
| 21:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 11 | 12 | 6 | 0 | 0 | 0 | 0 | 32 |
| 21:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 17 | 11 | 6 | 0 | 0 | 0 | 0 | 40 |
| 21:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 15 | 12 | 8 | 2 | 0 | 0 | 0 | 42 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 14 | 45 | 60 | 28 | 4 | 0 | 0 | 0 | 154 |
| 22:00 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 14 | 16 | 4 | 1 | 0 | 0 | 0 | 39 |
| 22:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 8 | 16 | 3 | 1 | 0 | 0 | 0 | 31 |
| 22:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 14 | 18 | 7 | 1 | 0 | 0 | 0 | 43 |
| 22:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 21 | 5 | 6 | 1 | 0 | 0 | 0 | 37 |
| | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 10 | 57 | 55 | 20 | 4 | 0 | 0 | 0 | 150 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 20 | 3 | 0 | 0 | 0 | 0 | 34 |
| 23:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 9 | 12 | 9 | 1 | 0 | 0 | 38 |
| 23:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 7 | 8 | 8 | 5 | 1 | 0 | 0 | 34 |
| 23:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 14 | 8 | 2 | 1 | 0 | 0 | 29 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 24 | 51 | 31 | 16 | 3 | 0 | 0 | 135 |
| Total | 0 | 0 | 0 | 0 | 1 | 2 | 15 | 93 | 396 | 664 | 428 | 79 | 13 | 0 | 0 | 1691 |

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | 0 5 | 6 10 | 11 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/02/19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 23 | 10 | 2 | 0 | 0 | 0 | 0 | 38 |
| 00:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 20 | 1 | 0 | 1 | 0 | 0 | 29 |
| 00:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | 4 | 0 | 0 | 0 | 0 | 16 |
| 00:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 13 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 32 | 52 | 7 | 0 | 1 | 0 | 0 | 96 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 8 | 0 | 0 | 0 | 0 | 0 | 21 |
| 01:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 9 |
| 01:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 7 | 1 | 0 | 0 | 0 | 0 | 16 |
| 01:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 16 | 2 | 0 | 0 | 0 | 0 | 23 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 28 | 33 | 4 | 1 | 0 | 0 | 0 | 69 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 7 |
| 02:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 2 | 0 | 3 | 0 | 1 | 0 | 0 | 13 |
| 02:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| 02:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 12 | 1 | 0 | 0 | 0 | 0 | 16 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 6 | 19 | 5 | 0 | 1 | 0 | 0 | 39 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 16 | 0 | 1 | 0 | 0 | 0 | 24 |
| 03:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 6 |
| 03:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 8 | 0 | 0 | 0 | 0 | 12 |
| 03:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 0 | 1 | 0 | 1 | 0 | 8 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 11 | 21 | 13 | 2 | 0 | 1 | 0 | 50 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 7 |
| 04:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 13 | 10 | 1 | 0 | 0 | 0 | 0 | 26 |
| 04:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 11 | 0 | 0 | 0 | 0 | 0 | 24 |
| 04:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 10 | 12 | 4 | 0 | 1 | 0 | 35 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 32 | 37 | 14 | 4 | 0 | 1 | 0 | 92 |
| 05:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 37 | 21 | 3 | 0 | 0 | 0 | 0 | 63 |
| 05:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 22 | 12 | 2 | 0 | 0 | 0 | 41 |
| 05:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 15 | 30 | 7 | 2 | 0 | 0 | 0 | 56 |
| 05:45 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 14 | 36 | 18 | 7 | 0 | 0 | 0 | 81 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 69 | 109 | 40 | 11 | 0 | 0 | 0 | 241 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 27 | 37 | 14 | 2 | 0 | 0 | 0 | 87 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 | 35 | 56 | 19 | 0 | 1 | 0 | 0 | 126 |
| 06:30 | 0 | 0 | 0 | 1 | 0 | 1 | 7 | 18 | 45 | 90 | 32 | 10 | 0 | 0 | 0 | 204 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 62 | 121 | 34 | 7 | 0 | 0 | 0 | 237 |
| | 0 | 0 | 0 | 1 | 0 | 1 | 12 | 48 | 169 | 304 | 99 | 19 | 1 | 0 | 0 | 654 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 21 | 49 | 118 | 61 | 10 | 2 | 0 | 0 | 263 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 38 | 129 | 106 | 37 | 5 | 0 | 0 | 0 | 316 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 130 | 111 | 19 | 7 | 0 | 0 | 0 | 302 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 111 | 178 | 111 | 17 | 0 | 0 | 0 | 0 | 436 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 205 | 486 | 446 | 134 | 22 | 2 | 0 | 0 | 1317 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 2 | 29 | 65 | 122 | 130 | 22 | 2 | 0 | 0 | 0 | 372 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 88 | 150 | 107 | 25 | 3 | 1 | 0 | 0 | 380 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 25 | 127 | 147 | 31 | 9 | 0 | 0 | 0 | 342 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 60 | 125 | 118 | 45 | 7 | 1 | 0 | 0 | 358 |
| | 0 | 0 | 0 | 0 | 0 | 2 | 40 | 238 | 524 | 502 | 123 | 21 | 2 | 0 | 0 | 1452 |
| 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 41 | 119 | 42 | 9 | 0 | 0 | 0 | 222 |
| 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 41 | 86 | 33 | 6 | 0 | 0 | 0 | 177 |
| 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 47 | 74 | 30 | 4 | 0 | 0 | 0 | 167 |
| 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 22 | 77 | 46 | 6 | 0 | 0 | 0 | 162 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 40 | 151 | 356 | 151 | 25 | 0 | 0 | 0 | 728 |
| 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 12 | 32 | 45 | 30 | 4 | 1 | 0 | 0 | 128 |
| 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 16 | 38 | 57 | 20 | 11 | 0 | 0 | 0 | 147 |
| 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 15 | 28 | 54 | 28 | 9 | 4 | 0 | 0 | 139 |
| 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 23 | 57 | 48 | 5 | 1 | 0 | 0 | 137 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 45 | 121 | 213 | 126 | 29 | 6 | 0 | 0 | 551 |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 3 | 6 | 6 | 31 | 53 | 31 | 1 | 1 | 0 | 0 | 132 |
| 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 42 | 55 | 24 | 6 | 0 | 1 | 0 | 134 |
| 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 35 | 41 | 23 | 4 | 1 | 0 | 0 | 111 |
| 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 26 | 69 | 10 | 1 | 0 | 0 | 0 | 113 |
| | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 22 | 134 | 218 | 88 | 12 | 2 | 1 | 0 | 490 |
| Total | 0 | 0 | 0 | 1 | 0 | 6 | 110 | 621 | 1763 | 2310 | 804 | 146 | 15 | 3 | 0 | 5779 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | 0 5 | 6 10 | 11 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 26 | 52 | 18 | 1 | 2 | 0 | 0 | 107 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 33 | 60 | 18 | 3 | 1 | 0 | 0 | 120 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 35 | 59 | 17 | 3 | 0 | 0 | 0 | 123 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 16 | 62 | 22 | 2 | 1 | 0 | 0 | 107 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 23 | 110 | 233 | 75 | 9 | 4 | 0 | 0 | 457 |
| 13:00 | 0 | 0 | 1 | 0 | 0 | 6 | 3 | 6 | 49 | 35 | 11 | 8 | 1 | 0 | 0 | 120 |
| 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 16 | 31 | 61 | 18 | 1 | 0 | 0 | 0 | 129 |
| 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 37 | 54 | 13 | 0 | 0 | 0 | 0 | 106 |
| 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 44 | 39 | 16 | 4 | 3 | 0 | 0 | 110 |
| | 0 | 0 | 1 | 0 | 0 | 6 | 6 | 27 | 161 | 189 | 58 | 13 | 4 | 0 | 0 | 465 |
| 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 22 | 51 | 20 | 6 | 1 | 0 | 0 | 112 |
| 14:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 74 | 15 | 1 | 0 | 0 | 0 | 122 |
| 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 14 | 61 | 51 | 10 | 0 | 0 | 0 | 0 | 139 |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 7 | 43 | 74 | 23 | 2 | 0 | 0 | 0 | 150 |
| | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 33 | 158 | 250 | 68 | 9 | 1 | 0 | 0 | 523 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 17 | 83 | 10 | 1 | 0 | 0 | 0 | 112 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 46 | 58 | 18 | 5 | 1 | 0 | 0 | 133 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 20 | 72 | 58 | 8 | 1 | 1 | 0 | 162 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 26 | 70 | 22 | 2 | 0 | 0 | 0 | 127 |
| | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 12 | 109 | 283 | 108 | 16 | 2 | 1 | 0 | 534 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 50 | 59 | 27 | 0 | 0 | 0 | 0 | 147 |
| 16:15 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 9 | 38 | 52 | 13 | 3 | 0 | 0 | 0 | 118 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 16 | 55 | 45 | 6 | 1 | 0 | 0 | 125 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 24 | 59 | 43 | 4 | 1 | 0 | 0 | 132 |
| | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 23 | 128 | 225 | 128 | 13 | 2 | 0 | 0 | 522 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 27 | 78 | 48 | 11 | 0 | 0 | 0 | 168 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 77 | 44 | 4 | 2 | 0 | 0 | 140 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 13 | 51 | 30 | 5 | 0 | 0 | 0 | 101 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 13 | 37 | 31 | 8 | 1 | 0 | 0 | 92 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 65 | 243 | 153 | 28 | 3 | 0 | 0 | 501 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 15 | 39 | 26 | 3 | 0 | 0 | 0 | 85 |
| 18:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 34 | 25 | 2 | 1 | 0 | 0 | 74 |
| 18:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 11 | 52 | 27 | 3 | 0 | 0 | 0 | 95 |
| 18:45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 32 | 29 | 7 | 1 | 1 | 0 | 0 | 73 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 70 | 154 | 85 | 9 | 2 | 0 | 0 | 327 |
| 19:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 9 | 38 | 4 | 0 | 0 | 0 | 0 | 53 |
| 19:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 36 | 27 | 6 | 1 | 0 | 0 | 0 | 74 |
| 19:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 | 17 | 21 | 4 | 1 | 1 | 0 | 59 |
| 19:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 28 | 17 | 4 | 0 | 0 | 0 | 60 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 66 | 110 | 48 | 9 | 1 | 1 | 0 | 246 |
| 20:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 16 | 4 | 12 | 2 | 0 | 0 | 0 | 38 |
| 20:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 16 | 4 | 12 | 2 | 0 | 0 | 0 | 38 |
| 21:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 21:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 2 | 1 | 0 | 0 | 8 | 19 | 145 | 883 | 1691 | 735 | 108 | 19 | 2 | 0 | 3613 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

Northbound

| Start Time | 0 5 | 6 10 | 11 15 | 16 20 | 21 25 | 26 30 | 31 35 | 36 40 | 41 45 | 46 50 | 51 55 | 56 60 | 61 65 | 66 70 | 71 75 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/03/19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 00:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 00:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 00:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 09:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 10:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:15 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:30 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| 11:45 | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 2 | 1 | 1 | 1 | 16 | 144 | 859 | 3042 | 4665 | 1967 | 333 | 47 | 5 | 0 | 11083 |

Stats

| | |
|---|---|
| 15th Percentile : | 41 MPH |
| 50th Percentile : | 46 MPH |
| 85th Percentile : | 51 MPH |
| 95th Percentile : | 54 MPH |
| Mean Speed(Average) : | 47 MPH |
| 10 MPH Pace Speed : | 41-50 MPH |
| Number in Pace : | 7707 |
| Percent in Pace : | 69.5% |
| Number of Vehicles > 55 MPH : | 385 |
| Percent of Vehicles > 55 MPH : | 3.5% |

Road Name: I787 NB Ramp from I90
Segment: 365' E of US 9W Overpass
Ctr#: GJ15

# *Tri-State Traffic Data Inc*

184 Baker Rd
Coatesville, PA 19320

GPS: 42.632465, -73.774011

| Start Time | Mon 30-Sep-19 | Tue 01-Oct-19 | Wed 02-Oct-19 | Thu 03-Oct-19 | Fri 04-Oct-19 | | Average Day | | Sat 05-Oct-19 | Sun 06-Oct-19 | | Week Average | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 AM | * | * | 96 | * | * | | 96 | | * | * | | 96 | | |
| 01:00 | * | * | 69 | * | * | | 69 | | * | * | | 69 | | |
| 02:00 | * | * | 39 | * | * | | 39 | | * | * | | 39 | | |
| 03:00 | * | * | 50 | * | * | | 50 | | * | * | | 50 | | |
| 04:00 | * | * | 92 | * | * | | 92 | | * | * | | 92 | | |
| 05:00 | * | * | 241 | * | * | | 241 | | * | * | | 241 | | |
| 06:00 | * | * | 654 | * | * | | 654 | | * | * | | 654 | | |
| 07:00 | * | * | 1317 | * | * | | 1317 | | * | * | | 1317 | | |
| 08:00 | * | * | **1452** | * | * | | **1452** | | * | * | | **1452** | | |
| 09:00 | * | * | 728 | * | * | | 728 | | * | * | | 728 | | |
| 10:00 | * | * | 551 | * | * | | 551 | | * | * | | 551 | | |
| 11:00 | * | * | 490 | * | * | | 490 | | * | * | | 490 | | |
| 12:00 PM | * | * | 457 | * | * | | 457 | | * | * | | 457 | | |
| 01:00 | * | * | 465 | * | * | | 465 | | * | * | | 465 | | |
| 02:00 | * | * | 523 | * | * | | 523 | | * | * | | 523 | | |
| 03:00 | * | * | **534** | * | * | | **534** | | * | * | | **534** | | |
| 04:00 | * | * | 522 | * | * | | 522 | | * | * | | 522 | | |
| 05:00 | * | **476** | 501 | * | * | | 488 | | * | * | | 488 | | |
| 06:00 | * | 347 | 327 | * | * | | 337 | | * | * | | 337 | | |
| 07:00 | * | 256 | 246 | * | * | | 251 | | * | * | | 251 | | |
| 08:00 | * | 173 | * | * | * | | 173 | | * | * | | 173 | | |
| 09:00 | * | 154 | * | * | * | | 154 | | * | * | | 154 | | |
| 10:00 | * | 150 | * | * | * | | 150 | | * | * | | 150 | | |
| 11:00 | * | 135 | * | * | * | | 135 | | * | * | | 135 | | |
| Day Total | 0 | 1691 | 9354 | 0 | 0 | | 9968 | | 0 | 0 | | 9968 | | |
| % Avg. WkDay | 0.0% | 17.0% | 93.8% | 0.0% | 0.0% | | | | | | | | | |
| % Avg. Week | 0.0% | 17.0% | 93.8% | 0.0% | 0.0% | | 100.0% | | 0.0% | 0.0% | | | | |
| AM Peak | - | - | 08:00 | - | - | - | 08:00 | - | - | - | - | 08:00 | - | - |
| Vol. | - | - | 1452 | - | - | - | 1452 | - | - | - | - | 1452 | - | - |
| PM Peak | - | 17:00 | 15:00 | - | - | - | 15:00 | - | - | - | - | 15:00 | - | - |
| Vol. | - | 476 | 534 | - | - | - | 534 | - | - | - | - | 534 | - | - |
| Grand Total | 0 | 1691 | 9354 | 0 | 0 | | 9968 | | 0 | 0 | | 9968 | | |

| | | |
|---|---|---|
| ADT | ADT 9,944 | AADT 9,944 |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment" 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

| Start Time | 01-Oct-19 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon |
|---|---|---|---|---|---|
| 12:00 | | * | * | | |
| 12:15 | | * | * | | |
| 12:30 | | * | * | | |
| 12:45 | | * | * | 0 | 0 |
| 01:00 | | * | * | | |
| 01:15 | | * | * | | |
| 01:30 | | * | * | | |
| 01:45 | | * | * | 0 | 0 |
| 02:00 | | * | * | | |
| 02:15 | | * | * | | |
| 02:30 | | * | * | | |
| 02:45 | | * | * | 0 | 0 |
| 03:00 | | * | * | | |
| 03:15 | | * | * | | |
| 03:30 | | * | * | | |
| 03:45 | | * | * | 0 | 0 |
| 04:00 | | * | * | | |
| 04:15 | | * | * | | |
| 04:30 | | * | * | | |
| 04:45 | | * | * | 0 | 0 |
| 05:00 | | * | 137 | | |
| 05:15 | | * | 109 | | |
| 05:30 | | * | 126 | | |
| 05:45 | | * | 104 | 0 | 476 |
| 06:00 | | * | 106 | | |
| 06:15 | | * | 88 | | |
| 06:30 | | * | 93 | | |
| 06:45 | | * | 60 | 0 | 347 |
| 07:00 | | * | 78 | | |
| 07:15 | | * | 58 | | |
| 07:30 | | * | 65 | | |
| 07:45 | | * | 55 | 0 | 256 |
| 08:00 | | * | 49 | | |
| 08:15 | | * | 41 | | |
| 08:30 | | * | 47 | | |
| 08:45 | | * | 36 | 0 | 173 |
| 09:00 | | * | 40 | | |
| 09:15 | | * | 32 | | |
| 09:30 | | * | 40 | | |
| 09:45 | | * | 42 | 0 | 154 |
| 10:00 | | * | 39 | | |
| 10:15 | | * | 31 | | |
| 10:30 | | * | 43 | | |
| 10:45 | | * | 37 | 0 | 150 |
| 11:00 | | * | 34 | | |
| 11:15 | | * | 38 | | |
| 11:30 | | * | 34 | | |
| 11:45 | | * | 29 | 0 | 135 |
| Total | | 0 | 1691 | | |
| Percent | | 0.0% | 100.0% | | |

# Tri-State Traffic Data Inc

184 Baker Rd
Coatesville, PA 19320

Road Name: I787 NB Ramp from I90
Segment" 365' E of US 9W Overpass
Ctr#: GJ15

GPS: 42.632465, -73.774011

| Start | 02-Oct-19 | Northbound | | Hour Totals | |
|---|---|---|---|---|---|
| Time | Wed | Morning | Afternoon | Morning | Afternoon |
| 12:00 | | 38 | 107 | | |
| 12:15 | | 29 | 120 | | |
| 12:30 | | 16 | 123 | | |
| 12:45 | | 13 | 107 | 96 | 457 |
| 01:00 | | 21 | 120 | | |
| 01:15 | | 9 | 129 | | |
| 01:30 | | 16 | 106 | | |
| 01:45 | | 23 | 110 | 69 | 465 |
| 02:00 | | 7 | 112 | | |
| 02:15 | | 13 | 122 | | |
| 02:30 | | 3 | 139 | | |
| 02:45 | | 16 | 150 | 39 | 523 |
| 03:00 | | 24 | 112 | | |
| 03:15 | | 6 | 133 | | |
| 03:30 | | 12 | 162 | | |
| 03:45 | | 8 | 127 | 50 | 534 |
| 04:00 | | 7 | 147 | | |
| 04:15 | | 26 | 118 | | |
| 04:30 | | 24 | 125 | | |
| 04:45 | | 35 | 132 | 92 | 522 |
| 05:00 | | 63 | 168 | | |
| 05:15 | | 41 | 140 | | |
| 05:30 | | 56 | 101 | | |
| 05:45 | | 81 | 92 | 241 | 501 |
| 06:00 | | 87 | 85 | | |
| 06:15 | | 126 | 74 | | |
| 06:30 | | 204 | 95 | | |
| 06:45 | | 237 | 73 | 654 | 327 |
| 07:00 | | 263 | 53 | | |
| 07:15 | | 316 | 74 | | |
| 07:30 | | 302 | 59 | | |
| 07:45 | | 436 | 60 | 1317 | 246 |
| 08:00 | | 372 | * | | |
| 08:15 | | 380 | * | | |
| 08:30 | | 342 | * | | |
| 08:45 | | 358 | * | 1452 | 0 |
| 09:00 | | 222 | * | | |
| 09:15 | | 177 | * | | |
| 09:30 | | 167 | * | | |
| 09:45 | | 162 | * | 728 | 0 |
| 10:00 | | 128 | * | | |
| 10:15 | | 147 | * | | |
| 10:30 | | 139 | * | | |
| 10:45 | | 137 | * | 551 | 0 |
| 11:00 | | 132 | * | | |
| 11:15 | | 134 | * | | |
| 11:30 | | 111 | * | | |
| 11:45 | | 113 | * | 490 | 0 |
| Total | | 5779 | 3575 | | |
| Percent | | 61.8% | 38.2% | | |
| Grand Total | | 5779 | 5266 | | |
| Percent | | 52.3% | 47.7% | | |
| ADT | | ADT 9,944 | | AADT 9,944 | |

STATION: **113277**

# New York State Department of Transportation
## Traffic Count Hourly Report



ROAD #: **RAMP** ROAD NAME: **I-787 INT 1** FROM: **US 9W** TO: **I-787 NB (ON)** COUNTY: **Albany**
DIRECTION: Northbound FACTOR GROUP: 30 REC. SERIAL #: 0254 FUNC. CLASS: 11 CITY: **ALBANY**
STATE DIR CODE: 3 WK OF YR: 6 PLACEMENT: I 787 NB ON RAMP NHS: no LION#:
DATE OF COUNT: 02/01/2010 @ REF MARKER: JURIS: NYSDOT BIN:
NOTES LANE 1: NORTH ADDL DATA: CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-WW6 HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: DOT INITIALS: DS PROCESSED BY: ORG CODE: DOT INITIALS: MLA

| DATE | DAY | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM | | | | | | | | | | | | PM | | | | | | | | | | | | | | |
| 1 | M | | **22** | **18** | **35** | **48** | **146** | **465** | **1185** | **1245** | **744** | **495** | **479** | **507** | **463** | **518** | **711** | **741** | **594** | **372** | **266** | **178** | **134** | **103** | **95** | | | |
| 2 | T | **29** | **28** | **24** | **36** | **55** | **134** | **506** | **1195** | **1289** | **833** | **482** | **524** | **528** | **485** | **487** | **709** | **757** | **587** | **367** | **273** | **226** | **176** | **109** | **93** | 9932 | 1289 | 8 |
| 3 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| | | | | | | | | | | | | | | | | | | | | | | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **26** | **25** | **21** | **32** | **48** | **118** | **428** | **1048** | **1116** | **694** | **430** | **442** | **456** | **418** | **442** | **626** | **660** | **520** | **326** | **238** | **178** | **137** | **93** | **83** | **8605** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 2 | 47 | 1 | 42 | 1116 | 13% | 0.881 | 0.972 |

**ESTIMATED**

**AADT**

**8853**

STATION: **110066**

# New York State Department of Transportation
## Traffic Count Hourly Report

ROUTE #: **US 9W** ROAD NAME:
DIRECTION: Northbound FACTOR GROUP: 30
STATE DIR CODE: 1 WK OF YR: 41
DATE OF COUNT: 10/06/2015
NOTES LANE 0: NB travel and passing lanes

COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK

FROM: **END 9W/32 OLAP**
REC. SERIAL #: 4997
PLACEMENT: 45 yds S of Mount Hope Dr
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: WW

TO: **ACC RT 787I NB**
FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-R01R01S41aTST5195

COUNTY: **Albany**
CITY:
LION#:
BIN: 1007610
RR CROSSING:
HPMS SAMPLE:

| DATE | DAY | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM | | | | | | | | | | | | PM | | | | | | | | | | | | | | |
| 1 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | T | | | | | | | | | | | **664** | **782** | **855** | **872** | **1002** | **1256** | **1388** | **1499** | **1072** | **648** | **559** | **410** | **290** | **215** | | | |
| 7 | W | **84** | **73** | **82** | **77** | **132** | **334** | **775** | **926** | **926** | **744** | **670** | **805** | **867** | **856** | **946** | **1232** | **1393** | **1441** | **1028** | **759** | **594** | **400** | **264** | **193** | 15601 | 1441 | 17 |
| 8 | T | **102** | **69** | **74** | **82** | **134** | **337** | **765** | **916** | **882** | **768** | **777** | **772** | **854** | **834** | **948** | **1199** | **1390** | **1471** | **1025** | **769** | **674** | **438** | **296** | **171** | 15747 | 1471 | 17 |
| 9 | F | **95** | **78** | **78** | **68** | **154** | **324** | **716** | **844** | **900** | **726** | **793** | **762** | **899** | **867** | **1011** | **1178** | **1234** | **1394** | **857** | **611** | **476** | **449** | **369** | **244** | 15127 | 1394 | 17 |
| 10 | S | **175** | **74** | **64** | **76** | **73** | **153** | **323** | **336** | **514** | **574** | **704** | **828** | **827** | **766** | **837** | **775** | **745** | **804** | **721** | **567** | **530** | **431** | **339** | **224** | 11460 | 837 | 14 |
| 11 | S | **160** | **103** | **71** | **62** | **46** | **100** | **188** | **248** | **307** | **534** | **604** | **715** | **760** | **761** | **758** | **771** | **774** | **674** | **662** | **562** | **410** | **308** | **292** | **145** | 10015 | 774 | 16 |
| 12 | M | **77** | **74** | **68** | **80** | **116** | **286** | **644** | **673** | **748** | **661** | **715** | **802** | **880** | **850** | **973** | **1007** | **1094** | **1079** | **848** | **616** | **428** | **339** | **255** | **175** | 13488 | 1094 | 16 |
| 13 | T | **78** | **76** | **56** | **87** | **126** | **347** | **742** | **924** | **930** | | | | | | | | | | | | | | | | | | |
| 14 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **87** | **72** | **70** | **76** | **132** | **326** | **707** | **832** | **852** | **704** | **703** | **762** | **839** | **828** | **939** | **1140** | **1278** | **1332** | **964** | **678** | **548** | **385** | **268** | **183** | **14705** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 7 | 167 | 4 | 101 | 1332 | 9% | 0.971 | 1.056 |

**ESTIMATED (one way)**

**AADT**
**13925**

# New York State Department of Transportation
## Traffic Count Hourly Report



ROUTE #: **US 9W** ROAD NAME:
DIRECTION: Southbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 41
DATE OF COUNT: 10/06/2015
NOTES LANE 0: SB travel and passing lanes

COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK

FROM: **END 9W/32 OLAP** TO: **ACC RT 787I NB**
REC. SERIAL #: 2574
PLACEMENT: 45 Yds S of Mount Hope Dr
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: WW

FUNC. CLASS: 14
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-R01R01S41aTST5195

COUNTY: **Albany**
CITY:
LION#:
BIN: 1007610
RR CROSSING:
HPMS SAMPLE:

| DATE | DAY | 12 TO 1 AM | 1 TO 2 AM | 2 TO 3 AM | 3 TO 4 AM | 4 TO 5 AM | 5 TO 6 AM | 6 TO 7 AM | 7 TO 8 AM | 8 TO 9 AM | 9 TO 10 AM | 10 TO 11 AM | 11 TO 12 AM | 12 TO 1 PM | 1 TO 2 PM | 2 TO 3 PM | 3 TO 4 PM | 4 TO 5 PM | 5 TO 6 PM | 6 TO 7 PM | 7 TO 8 PM | 8 TO 9 PM | 9 TO 10 PM | 10 TO 11 PM | 11 TO 12 PM | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | T | | | | | | | | | | | **899** | **909** | **1034** | **1002** | **1073** | **1334** | **1402** | **1140** | **930** | **651** | **457** | **310** | **190** | **204** | | | |
| 7 | W | **89** | **52** | **80** | **90** | **154** | **344** | **1016** | **1993** | **1754** | **1273** | **1016** | **903** | **1018** | **996** | **993** | **1407** | **1308** | **1130** | **952** | **612** | **470** | **339** | **209** | **212** | 18410 | 1993 | 7 |
| 8 | T | **98** | **66** | **72** | **94** | **144** | **375** | **1029** | **1952** | **1799** | **1235** | **992** | **987** | **1036** | **1049** | **1013** | **1338** | **1377** | **1162** | **998** | **663** | **523** | **322** | **230** | **215** | 18769 | 1952 | 7 |
| 9 | F | **63** | **78** | **64** | **110** | **119** | **366** | **911** | **1801** | **1666** | **1241** | **1000** | **1038** | **1090** | **1028** | **1171** | **1354** | **1228** | **1099** | **958** | **636** | **449** | **359** | **284** | **223** | 18336 | 1801 | 7 |
| 10 | S | **116** | **84** | **52** | **60** | **110** | **138** | **355** | **483** | **571** | **897** | **968** | **1029** | **1034** | **1021** | **929** | **949** | **813** | **843** | **837** | **607** | **384** | **314** | **279** | **216** | 13089 | 1034 | 12 |
| 11 | S | **102** | **80** | **47** | **40** | **50** | **89** | **211** | **315** | **503** | **683** | **807** | **942** | **1029** | **967** | **885** | **824** | **709** | **620** | **622** | **553** | **343** | **234** | **193** | **155** | 11003 | 1029 | 12 |
| 12 | M | **76** | **70** | **57** | **86** | **118** | **281** | **653** | **1068** | **962** | **931** | **1051** | **1006** | **1068** | **1036** | **1034** | **1237** | **1253** | **1054** | **802** | **591** | **405** | **275** | **219** | **192** | 15525 | 1253 | 16 |
| 13 | T | **81** | **69** | **48** | **83** | **149** | **357** | **991** | **1875** | **1821** | | | | | | | | | | | | | | | | | | |
| 14 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| | | | | | | | | | | | | | | | | | | | | | | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **81** | **64** | **64** | **91** | **138** | **350** | **893** | **1688** | **1554** | **1136** | **963** | **941** | **1009** | **991** | **998** | **1290** | **1296** | **1089** | **893** | **611** | **451** | **303** | **206** | **200** | **17300** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 7 | 167 | 4 | 101 | 1688 | 10% | 0.971 | 1.056 |

**ESTIMATED (one way)**

**AADT**
**16383**

# New York State Department of Transportation
## Roadway Traffic Count Hourly Report

**STATION: 110902**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROUTE/ROAD: | 910A Glenmont Rd | FROM: | RT 9W JCT | TO: | RT 144 | REGION-COUNTY: | 1-ALBANY |
| FED DIR CODE: | 3, 7 | REF. MARKER: | 910A11011027 | FUNC. CLASS: | 16 - U Minor Arterial | MUNI: | Bethlehem-Town-0071 |
| ST DIR CODE: | 6 | END MILEPOST: | 4.03 | FACTOR GROUP: | 30 | BIN: | 1022440 |
| DOT ID: | 100564 | LANES BY DIR: | 1 East 1 West | CC STN: | | RR CROSSING: | |
| BEGIN DATE: | 5/6/2014 | WEEK OF YEAR: | 18 | ADDL DATA: | CLS SPD | HPMS SAMPLE: | 6931009 |
| NOTES 1: | EB travel lane | PLACEMENT: | 60' W of Glenmont Ct î | JURISDICTION: | 01-NYSDOT | 1 WAY CODE: | |
| NOTES 2: | WB travel lane | | | | | COUNT TYPE: | Vehicle |
| TAKEN BY: | TST-BEK | PROCESSED BY: | DOT-JLB | BATCH ID: | DOT-R1WW19B C | SPEED LIMIT: | 40 |

| DATE | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | DAILY TOTAL | HIGH COUNT | HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/06, Tue | | | | | | | | | | | | | | | **384** | **446** | **556** | **589** | **452** | **336** | **237** | **128** | **54** | **50** | 3232 | | |
| 5/07, Wed | **9** | **8** | **6** | **7** | **27** | **70** | **164** | **304** | **352** | **309** | **314** | **352** | **401** | **413** | **368** | **474** | **576** | **605** | **468** | **338** | **276** | **157** | **72** | **40** | 6110 | 605 | 17-18 |
| 5/08, Thu | **25** | **8** | **5** | **5** | **17** | **62** | **149** | **316** | **356** | **325** | **294** | **382** | **456** | **390** | **392** | **510** | **605** | **603** | **482** | **419** | **257** | **139** | **72** | **40** | 6309 | 605 | 16-17 |
| 5/09, Fri | **18** | **21** | **16** | **14** | **18** | **66** | **165** | **319** | **401** | **351** | **385** | **439** | **458** | **445** | **454** | **557** | **639** | **653** | **515** | **337** | **222** | **124** | **68** | **54** | 6739 | 653 | 17-18 |
| 5/10, Sat | **27** | **9** | **7** | **4** | **11** | **22** | **56** | **121** | **251** | **384** | **506** | **596** | **600** | **556** | **540** | **480** | **432** | **442** | **394** | **326** | **210** | **128** | **80** | **48** | 6230 | 600 | 12-13 |
| 5/11, Sun | **31** | **14** | **7** | **13** | **5** | **10** | **51** | **124** | **169** | **346** | **410** | **468** | **518** | **509** | **457** | **393** | **380** | **330** | **339** | **238** | **185** | **86** | **42** | **21** | 5146 | 518 | 12-13 |
| 5/12, Mon | **6** | **13** | **1** | **11** | **24** | **71** | **153** | **339** | **379** | **307** | **324** | | | | | | | | | | | | | | 1628 | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)** **AWDT**

| | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | AWDT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **17** | **12** | **9** | **9** | **21** | **66** | **158** | **320** | **372** | **323** | **329** | **391** | **429** | **402** | **381** | **477** | **579** | **599** | **467** | **364** | **257** | **141** | **66** | **43** | 6231 |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY Roadway High Hour | Roadway % of day | East High Hour | East % of day | West High Hour | West % of day | ESTIMATED AADT Roadway | East | West |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 141 | 3 | 75 | 599 | 9.6 | 210 | 8.8 | 427 | 11.1 | 5783 | 2172 | 3518 |

**FACTOR**

| Month | Seasonal | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Axl |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 1.08 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**STATION: 110902**

# New York State Department of Transportation
## EB Traffic Count Hourly Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROUTE/ROAD: | 910A Glenmont Rd | FROM: | RT 9W JCT | TO: | RT 144 | REGION-COUNTY: | 1-ALBANY |
| FED DIR CODE: | 3 | REF. MARKER: | 910A11011027 | FUNC. CLASS: | 16 - U Minor Arterial | MUNI: | Bethlehem-Town-0071 |
| ST DIR CODE: | 6 | END MILEPOST: | 4.03 | FACTOR GROUP: | 30 | BIN: | 1022440 |
| DOT ID: | 100564 | LANES BY DIR: | 1 East | CC STN: | | RR CROSSING: | |
| BEGIN DATE: | 5/6/2014 | WEEK OF YEAR: | 18 | ADDL DATA: | CLS SPD | HPMS SAMPLE: | 6931009 |
| NOTES 1: | EB travel lane | PLACEMENT: | 60' W of Glenmont Ct î | JURISDICTION: | 01-NYSDOT | 1 WAY CODE: | |
| NOTES 2: | WB travel lane | | | | | COUNT TYPE: | Vehicle |
| TAKEN BY: | TST-BEK | PROCESSED BY: | DOT-JLB | BATCH ID: | DOT-R1WW19B C | SPEED LIMIT: | 40 |

| DATE | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | DAILY TOTAL | HIGH COUNT | HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/06, Tue | | | | | | | | | | | | | | | **135** | **146** | **199** | **175** | **153** | **112** | **97** | **50** | **21** | **27** | 1115 | | |
| 5/07, Wed | **3** | **1** | **3** | **4** | **16** | **36** | **74** | **160** | **204** | **145** | **115** | **130** | **151** | **148** | **123** | **168** | **200** | **171** | **163** | **128** | **124** | **67** | **20** | **12** | 2366 | 204 | 08-09 |
| 5/08, Thu | **8** | **5** | **2** | **1** | **12** | **35** | **66** | **173** | **203** | **136** | **121** | **134** | **173** | **148** | **131** | **181** | **186** | **169** | **166** | **145** | **100** | **61** | **28** | **14** | 2398 | 203 | 08-09 |
| 5/09, Fri | **9** | **11** | **8** | **4** | **11** | **32** | **82** | **164** | **222** | **154** | **168** | **160** | **173** | **153** | **167** | **196** | **186** | **195** | **185** | **130** | **76** | **44** | **25** | **22** | 2577 | 222 | 08-09 |
| 5/10, Sat | **11** | **3** | **1** | **1** | **3** | **11** | **28** | **57** | **123** | **156** | **197** | **234** | **247** | **211** | **170** | **180** | **157** | **154** | **125** | **107** | **74** | **53** | **31** | **19** | 2353 | 247 | 12-13 |
| 5/11, Sun | **14** | **4** | **4** | **3** | **1** | **4** | **22** | **55** | **64** | **150** | **144** | **165** | **207** | **179** | **162** | **138** | **155** | **109** | **130** | **89** | **71** | **37** | **19** | **10** | 1936 | 207 | 12-13 |
| 5/12, Mon | **4** | **6** | **0** | **6** | **16** | **35** | **76** | **181** | **209** | **120** | **123** | | | | | | | | | | | | | | 776 | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)** — **AWDT**

| 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | AWDT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **7** | **6** | **4** | **3** | **13** | **34** | **75** | **170** | **210** | **139** | **132** | **141** | **162** | **148** | **130** | **165** | **195** | **172** | **161** | **128** | **107** | **59** | **23** | **18** | 2400 |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY Roadway High Hour | Roadway % of day | East High Hour | East % of day | West High Hour | West % of day |
|---|---|---|---|---|---|---|---|---|---|
| 6 | 141 | 3 | 75 | 599 | 9.6 | 210 | 8.8 | 427 | 11.1 |

| ESTIMATED AADT Roadway | East | West |
|---|---|---|
| 5783 | 2172 | 3518 |

**FACTOR**

| Month | Seasonal | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Axl |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 1.08 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**STATION: 110902**

# New York State Department of Transportation
## WB Traffic Count Hourly Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROUTE/ROAD: | 910A Glenmont Rd | FROM: | RT 9W JCT | TO: | RT 144 | REGION-COUNTY: | 1-ALBANY |
| FED DIR CODE: | 7 | REF. MARKER: | 910A11011027 | FUNC. CLASS: | 16 - U Minor Arterial | MUNI: | Bethlehem-Town-0071 |
| ST DIR CODE: | 6 | END MILEPOST: | 4.03 | FACTOR GROUP: | 30 | BIN: | 1022440 |
| DOT ID: | 100564 | LANES BY DIR: | 1 West | CC STN: | | RR CROSSING: | |
| BEGIN DATE: | 5/6/2014 | WEEK OF YEAR: | 18 | ADDL DATA: | CLS SPD | HPMS SAMPLE: | 6931009 |
| NOTES 1: | EB travel lane | PLACEMENT: | 60' W of Glenmont Ct î | JURISDICTION: | 01-NYSDOT | 1 WAY CODE: | |
| NOTES 2: | WB travel lane | | | | | COUNT TYPE: | Vehicle |
| TAKEN BY: | TST-BEK | PROCESSED BY: | DOT-JLB | BATCH ID: | DOT-R1WW19B C | SPEED LIMIT: | 40 |

| DATE | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | DAILY TOTAL | HIGH COUNT | HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/06, Tue | | | | | | | | | | | | | | | 249 | 300 | 357 | 414 | 299 | 224 | 140 | 78 | 33 | 23 | 2117 | | |
| 5/07, Wed | 6 | 7 | 3 | 3 | 11 | 34 | 90 | 144 | 148 | 164 | 199 | 222 | 250 | 265 | 245 | 306 | 376 | 434 | 305 | 210 | 152 | 90 | 52 | 28 | 3744 | 434 | 17-18 |
| 5/08, Thu | 17 | 3 | 3 | 4 | 5 | 27 | 83 | 143 | 153 | 189 | 173 | 248 | 283 | 242 | 261 | 329 | 419 | 434 | 316 | 274 | 157 | 78 | 44 | 26 | 3911 | 434 | 17-18 |
| 5/09, Fri | 9 | 10 | 8 | 10 | 7 | 34 | 83 | 155 | 179 | 197 | 217 | 279 | 285 | 292 | 287 | 361 | 453 | 458 | 330 | 207 | 146 | 80 | 43 | 32 | 4162 | 458 | 17-18 |
| 5/10, Sat | 16 | 6 | 6 | 3 | 8 | 11 | 28 | 64 | 128 | 228 | 309 | 362 | 353 | 345 | 370 | 300 | 275 | 288 | 269 | 219 | 136 | 75 | 49 | 29 | 3877 | 370 | 14-15 |
| 5/11, Sun | 17 | 10 | 3 | 10 | 4 | 6 | 29 | 69 | 105 | 196 | 266 | 303 | 311 | 330 | 295 | 255 | 225 | 221 | 209 | 149 | 114 | 49 | 23 | 11 | 3210 | 330 | 13-14 |
| 5/12, Mon | 2 | 7 | 1 | 5 | 8 | 36 | 77 | 158 | 170 | 187 | 201 | | | | | | | | | | | | | | 852 | | |
| AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon) | 11 | 7 | 5 | 6 | 8 | 32 | 83 | 150 | 163 | 184 | 198 | 250 | 267 | 254 | 252 | 312 | 384 | 427 | 307 | 236 | 150 | 82 | 43 | 26 | AWDT 3832 | | |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY Roadway High Hour | Roadway % of day | East High Hour | East % of day | West High Hour | West % of day | ESTIMATED AADT Roadway | East | West |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 141 | 3 | 75 | 599 | 9.6 | 210 | 8.8 | 427 | 11.1 | 5783 | 2172 | 3518 |

**FACTOR**

| Month | Seasonal | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Axl |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 1.08 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

**STATION: 113276**

# New York State Department of Transportation
## Roadway Traffic Count Hourly Report

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROUTE/ROAD: | A I787 EB to 9W | FROM: | I-787 NB/ I-87 EX23 (OFF) | TO: | US 9W | REGION-COUNTY: | 1-ALBANY |
| FED DIR CODE: | 3 | REF. MARKER: | | FUNC. CLASS: | 11 - U Principal Arterial - Interstate | MUNI: | Albany-City-2001 |
| ST DIR CODE: | 3 | END MILEPOST: | .1 | FACTOR GROUP: | 30 | BIN: | |
| DOT ID: | 272801 | LANES BY DIR: | 2 East 0 West | CC STN: | | RR CROSSING: | |
| BEGIN DATE: | 5/1/2014 | WEEK OF YEAR: | 18 | ADDL DATA: | | HPMS SAMPLE: | |
| NOTES 1: | EB travel and passing lanes | PLACEMENT: | 50' W of SR 9W î | JURISDICTION: | 01-NYSDOT | 1 WAY CODE: | Y |
| NOTES 2: | | | | | | COUNT TYPE: | Axle |
| TAKEN BY: | TST-BEK | PROCESSED BY: | R01-TDB | BATCH ID: | DOT-R01R1 WW1 | SPEED LIMIT: | |

| DATE | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | DAILY TOTAL | HIGH COUNT | HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/01, Thu | | | | | | | | | | **894** | **681** | **597** | **717** | **714** | **802** | **930** | **908** | **1098** | **750** | **518** | **449** | **349** | **277** | **158** | 9842 | | |
| 5/02, Fri | **164** | **88** | **101** | **125** | **165** | **257** | **989** | **1700** | **1448** | **862** | **685** | **689** | **729** | **613** | **820** | **919** | **1018** | **1012** | **739** | **538** | **441** | **412** | **338** | **246** | 15098 | 1700 | 07-08 |
| 5/03, Sat | **135** | **116** | **110** | **108** | **127** | **119** | **291** | **230** | **350** | **371** | **467** | **533** | **598** | **553** | **665** | **675** | **603** | **499** | **541** | **414** | **463** | **362** | **333** | **239** | 8902 | 675 | 15-16 |
| 5/04, Sun | **123** | **104** | **44** | **63** | **47** | **64** | **253** | **170** | **217** | **435** | **357** | **447** | **649** | **635** | **636** | **691** | **593** | **647** | **673** | **438** | **448** | **317** | **172** | **116** | 8339 | 691 | 15-16 |
| 5/05, Mon | **70** | **34** | **34** | **26** | **111** | **240** | **1015** | **1702** | **1544** | **883** | **695** | **593** | **723** | **643** | **719** | **886** | **901** | **975** | **702** | **430** | **331** | **252** | **225** | **170** | 13904 | 1702 | 07-08 |
| 5/06, Tue | **75** | **76** | **115** | **105** | **135** | **278** | **1002** | **1833** | **1509** | **739** | **696** | **568** | **623** | **622** | **784** | **768** | **896** | **1075** | **721** | **391** | **341** | **343** | **255** | **143** | 14093 | 1833 | 07-08 |
| 5/07, Wed | **96** | **64** | **76** | **93** | **186** | **279** | **1085** | **1761** | **1489** | **960** | **646** | **670** | | | | | | | | | | | | | 7405 | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)**

| | 00-01 | 01-02 | 02-03 | 03-04 | 04-05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 | 11-12 | 12-13 | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 23-24 | AWDT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **101** | **69** | **88** | **97** | **146** | **245** | **925** | **1581** | **1354** | **784** | **615** | **564** | **622** | **596** | **695** | **779** | **815** | **949** | **655** | **403** | **338** | **284** | **228** | **142** | 13075 |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY Roadway High Hour | Roadway % of day | East High Hour | East % of day | West High Hour | West % of day |
|---|---|---|---|---|---|---|---|---|---|
| 6 | 147 | 3 | 81 | 1581 | 12.1 | | | | |

| ESTIMATED AADT Roadway | East | West |
|---|---|---|
| 10579 | | |

**FACTOR**

| Month | Seasonal | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Axl |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 1.08 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 |

STATION: **113278**

# New York State Department of Transportation
## Traffic Count Hourly Report



ROAD #: **RAMP** ROAD NAME: **I-787 INT 1**
DIRECTION: Southbound FACTOR GROUP: 30
STATE DIR CODE: 3 WK OF YR: 6
DATE OF COUNT: 02/01/2010
NOTES LANE 1: SOUTH

COUNT TAKEN BY: ORG CODE: DOT INITIALS: DS

FROM: **US 9W**
REC. SERIAL #: 1165
PLACEMENT: I 787 SB ON RAMP
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: MLA

TO: **I-787 NB/ I-87 EX23 (ON)**
FUNC. CLASS: 11
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: DOT-WW6

COUNTY: **Albany**
CITY: **ALBANY**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

| DATE | DAY | AM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | PM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | M | | **46** | **52** | **77** | **57** | **122** | **324** | **625** | **629** | **397** | **398** | **390** | **379** | **382** | **468** | **768** | **1056** | **772** | **357** | **231** | **210** | **138** | **105** | **99** | | | |
| 2 | T | **55** | **60** | **71** | **55** | **87** | **162** | **324** | **637** | **569** | **413** | **362** | **421** | **362** | **404** | **438** | **746** | **1003** | **793** | **347** | **250** | **238** | **185** | **104** | **129** | 8215 | 1003 | 16 |
| 3 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| | | | | | | | | | | | | | | | | | | | | | | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **48** | **53** | **63** | **48** | **77** | **143** | **285** | **556** | **528** | **357** | **335** | **358** | **326** | **346** | **399** | **667** | **907** | **689** | **310** | **211** | **197** | **143** | **92** | **100** | **7238** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 2 | 47 | 1 | 42 | 907 | 13% | 0.881 | 0.972 |

**ESTIMATED**

**AADT**

**7447**

STATION: **110106**

# New York State Department of Transportation

## Traffic Count Hourly Report



ROUTE #: **NY 32** ROAD NAME: **Corning Hill Rd** FROM: **END 9W/32 OLAP** TO: **RT 144 JCT** COUNTY: **Albany**
DIRECTION: Northbound FACTOR GROUP: 30 REC. SERIAL #: DR74 FUNC. CLASS: 16 TOWN: **BETHLEHEM**
STATE DIR CODE: 6 WK OF YR: 15 PLACEMENT: 277 Yd W of Retreat House Rd NHS: no LION#:
DATE OF COUNT: 04/06/2015 @ REF MARKER: JURIS: City BIN:
NOTES LANE 1: NB travel lane ADDL DATA: CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R01 WW15a Vol HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK PROCESSED BY: ORG CODE: DOT INITIALS: dc

| DATE | DAY | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM | | | | | | | | | | | | PM | | | | | | | | | | | | | | |
| 1 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | M | | | | | | | | **118** | **104** | **77** | **72** | **85** | **90** | **106** | **98** | **89** | **99** | **92** | **42** | **40** | **34** | **29** | **13** | **11** | | | |
| 7 | T | **7** | **7** | **4** | **15** | **23** | **44** | **71** | **110** | **118** | **86** | **81** | **87** | **107** | **113** | **85** | **69** | **92** | **78** | **70** | **38** | **35** | **22** | **19** | **16** | 1397 | 118 | 8 |
| 8 | W | **5** | **8** | **8** | **9** | **16** | **44** | **77** | **103** | **106** | **84** | **79** | **75** | **96** | **106** | **80** | **82** | **87** | **86** | **53** | **44** | **30** | **30** | **22** | **8** | 1338 | 106 | 8 |
| 9 | T | **10** | **7** | **11** | **11** | **18** | **44** | **74** | | | | | | | | | | | | | | | | | | | | |
| 10 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| | | | | | | | | | | | | | | | | | | | | | | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **7** | **7** | **8** | **12** | **19** | **44** | **74** | **110** | **109** | **82** | **77** | **82** | **98** | **108** | **88** | **80** | **93** | **85** | **55** | **41** | **33** | **27** | **18** | **12** | **1369** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 4 | 72 | 4 | 72 | 110 | 8% | 1.000 | 1.052 |

**ESTIMATED**

**AADT**

**1301**

STATION: **110106**

# New York State Department of Transportation
## Traffic Count Hourly Report

ROUTE #: **NY 32** ROAD NAME: **Corning Hill Rd** FROM: **END 9W/32 OLAP** TO: **RT 144 JCT** COUNTY: **Albany**
DIRECTION: Southbound FACTOR GROUP: 30 REC. SERIAL #: DR74 FUNC. CLASS: 16 TOWN: **BETHLEHEM**
STATE DIR CODE: 7 WK OF YR: 15 PLACEMENT: 277 Yd W of Retreat House Rd NHS: no LION#:
DATE OF COUNT: 04/06/2015 @ REF MARKER: JURIS: City BIN:
NOTES LANE 1: SB travel lane ADDL DATA: CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R01 WW15a Vol HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK PROCESSED BY: ORG CODE: DOT INITIALS: dc

| DATE | DAY | AM 12 TO 1 | AM 1 TO 2 | AM 2 TO 3 | AM 3 TO 4 | AM 4 TO 5 | AM 5 TO 6 | AM 6 TO 7 | AM 7 TO 8 | AM 8 TO 9 | AM 9 TO 10 | AM 10 TO 11 | AM 11 TO 12 | PM 12 TO 1 | PM 1 TO 2 | PM 2 TO 3 | PM 3 TO 4 | PM 4 TO 5 | PM 5 TO 6 | PM 6 TO 7 | PM 7 TO 8 | PM 8 TO 9 | PM 9 TO 10 | PM 10 TO 11 | PM 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | M | | | | | | | | **122** | **111** | **114** | **100** | **135** | **146** | **138** | **145** | **171** | **254** | **226** | **118** | **55** | **40** | **35** | **37** | **23** | | | |
| 7 | T | **8** | **16** | **14** | **25** | **16** | **38** | **59** | **106** | **126** | **127** | **122** | **124** | **160** | **151** | **147** | **201** | **259** | **256** | **107** | **81** | **54** | **47** | **31** | **29** | 2304 | 259 | 16 |
| 8 | W | **9** | **7** | **15** | **21** | **17** | **23** | **60** | **116** | **98** | **118** | **113** | **132** | **145** | **131** | **162** | **207** | **245** | **245** | **105** | **82** | **61** | **42** | **31** | **18** | 2203 | 245 | 16 |
| 9 | T | **13** | **16** | **12** | **12** | **12** | **30** | **67** | | | | | | | | | | | | | | | | | | | | |
| 10 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| 12-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | 12-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **10** | **13** | **14** | **19** | **15** | **30** | **62** | **115** | **112** | **120** | **112** | **130** | **150** | **140** | **151** | **193** | **253** | **242** | **110** | **73** | **52** | **41** | **33** | **23** | **2213** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 4 | 72 | 4 | 72 | 253 | 11% | 1.000 | 1.052 |

**ESTIMATED**

**AADT**

**2104**

STATION: **110925**

# New York State Department of Transportation
## Traffic Count Hourly Report

ROUTE #: **913H** ROAD NAME: **US9W/NY32 JCT** FROM: **JCT RTS 9W & 32 SOUTHERN RAM** TO: **END AT RT 32** COUNTY: **Albany**
DIRECTION: Eastbound FACTOR GROUP: 30 REC. SERIAL #: FY23 FUNC. CLASS: 16 TOWN: **BETHLEHEM**
STATE DIR CODE: 3 WK OF YR: 15 PLACEMENT: 80 Yds E of SR 9W NHS: no LION#:
DATE OF COUNT: 04/06/2015 @ REF MARKER: JURIS: City BIN:
NOTES LANE 1: EB travel lane ADDL DATA: CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R01 WW15a Vol HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK PROCESSED BY: ORG CODE: DOT INITIALS: dc

| DATE | DAY | AM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | PM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | M | | | | | | | | **163** | **187** | **112** | **113** | **117** | **138** | **150** | **120** | **112** | **97** | **100** | **70** | **61** | **39** | **40** | **19** | **20** | | | |
| 7 | T | **5** | **4** | **7** | **9** | **25** | **53** | **105** | **170** | **172** | **120** | **103** | **110** | **126** | **140** | **117** | **86** | **81** | **82** | **95** | **48** | **53** | **27** | **26** | **15** | 1779 | 172 | 8 |
| 8 | W | **12** | **12** | **10** | **5** | **14** | **52** | **110** | **161** | **175** | **120** | **100** | **94** | **114** | **122** | **90** | **120** | **86** | **78** | **52** | **45** | **45** | **37** | **22** | **17** | 1693 | 175 | 8 |
| 9 | T | **9** | **8** | **10** | **20** | **22** | **54** | **91** | | | | | | | | | | | | | | | | | | | | |
| 10 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| 12-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | 12-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **9** | **8** | **9** | **11** | **20** | **52** | **100** | **162** | **175** | **115** | **103** | **105** | **124** | **135** | **107** | **104** | **86** | **85** | **71** | **50** | **45** | **34** | **22** | **17** | **1749** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 4 | 72 | 4 | 72 | 175 | 10% | 0.982 | 1.052 |

**ESTIMATED**

**AADT**

**1663**

STATION: **110926**

# New York State Department of Transportation
## Traffic Count Hourly Report



ROUTE #: **913J** ROAD NAME: **913J**
DIRECTION: Westbound FACTOR GROUP: 30
STATE DIR CODE: 3 WK OF YR: 13
DATE OF COUNT: 03/25/2009
NOTES LANE 1: Week 12-Wb One Way only

COUNT TAKEN BY: ORG CODE: TST INITIALS: JSV

FROM: **RT 32 NORTHERN RAMP**
REC. SERIAL #: 0087
PLACEMENT: 300' E of SR9W
@ REF MARKER:
ADDL DATA:
COUNT TYPE: VEHICLES
PROCESSED BY: ORG CODE: DOT INITIALS: SJW

TO: **END AT RT 9W**
FUNC. CLASS: 14
NHS: yes
JURIS: NYSDOT
CC Stn:
BATCH ID: DOT-SJWr1ww12

COUNTY: **Albany**
TOWN: **BETHLEHEM**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

| DATE | DAY | 12 TO 1 (AM) | 1 TO 2 (AM) | 2 TO 3 (AM) | 3 TO 4 (AM) | 4 TO 5 (AM) | 5 TO 6 (AM) | 6 TO 7 (AM) | 7 TO 8 (AM) | 8 TO 9 (AM) | 9 TO 10 (AM) | 10 TO 11 (AM) | 11 TO 12 (AM) | 12 TO 1 (PM) | 1 TO 2 (PM) | 2 TO 3 (PM) | 3 TO 4 (PM) | 4 TO 5 (PM) | 5 TO 6 (PM) | 6 TO 7 (PM) | 7 TO 8 (PM) | 8 TO 9 (PM) | 9 TO 10 (PM) | 10 TO 11 (PM) | 11 TO 12 (PM) | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | W | | | | | | | | | | | | **71** | **125** | **99** | **120** | **133** | **126** | **123** | **107** | **51** | **46** | **29** | **41** | **27** | | | |
| 26 | T | **18** | **17** | **19** | **27** | **33** | **30** | **126** | **207** | **178** | **140** | **121** | **74** | **144** | **137** | **116** | **132** | **120** | **126** | **95** | **56** | **38** | **34** | **27** | **26** | 2041 | 207 | 7 |
| 27 | F | **14** | **15** | **23** | **26** | **20** | **31** | **92** | **143** | **157** | **108** | **120** | **126** | **149** | **120** | **128** | **135** | **149** | **120** | **98** | **57** | **41** | **40** | **31** | **37** | 1980 | 157 | 8 |
| 28 | S | **29** | **18** | **7** | **20** | **14** | **18** | **45** | **84** | **72** | **106** | **110** | **142** | **118** | **94** | **103** | **89** | **79** | **82** | **76** | **63** | **50** | **33** | **34** | **42** | 1528 | 142 | 11 |
| 29 | S | **11** | **18** | **14** | **12** | **15** | **21** | **33** | **35** | **39** | **62** | **80** | **97** | **102** | **98** | **89** | **80** | **64** | **64** | **73** | **72** | **61** | **38** | **20** | **28** | 1226 | 102 | 12 |
| 30 | M | **20** | **15** | **10** | **33** | **35** | **36** | **92** | **154** | **149** | **112** | **82** | **102** | **117** | **90** | **112** | **115** | **105** | **111** | **93** | **64** | **40** | **36** | **38** | **36** | 1797 | 154 | 7 |
| 31 | T | **20** | **13** | **11** | **19** | **27** | **57** | **120** | **154** | **196** | **139** | **67** | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| 12 TO 1 (AM) | 1 TO 2 (AM) | 2 TO 3 (AM) | 3 TO 4 (AM) | 4 TO 5 (AM) | 5 TO 6 (AM) | 6 TO 7 (AM) | 7 TO 8 (AM) | 8 TO 9 (AM) | 9 TO 10 (AM) | 10 TO 11 (AM) | 11 TO 12 (AM) | 12 TO 1 (PM) | 1 TO 2 (PM) | 2 TO 3 (PM) | 3 TO 4 (PM) | 4 TO 5 (PM) | 5 TO 6 (PM) | 6 TO 7 (PM) | 7 TO 8 (PM) | 8 TO 9 (PM) | 9 TO 10 (PM) | 10 TO 11 (PM) | 11 TO 12 (PM) | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **17** | **15** | **18** | **24** | **27** | **39** | **108** | **164** | **170** | **125** | **98** | **93** | **129** | **109** | **116** | **127** | **117** | **120** | **98** | **57** | **41** | **33** | **35** | **30** | **1910** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 7 | 144 | 4 | 78 | 170 | 9% | 1.000 | 1.025 |

**ESTIMATED**

**AADT**

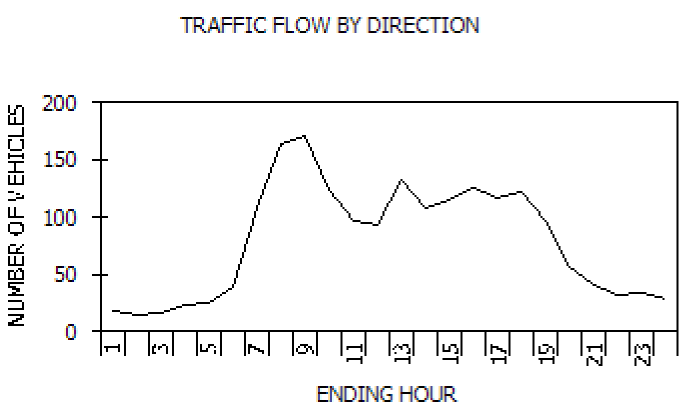
**1863**

# New York State Department of Transportation
## Classification Count Average Weekday Data Report

ROUTE #: 913J    ROAD NAME: 913J    YEAR: 2009    STATION: 110926
COUNTY NAME: Albany    MONTH: March
REGION CODE: 1
FROM: RT 32 NORTHERN RAMP
TO: END AT RT 9W
REF-MARKER:
END MILEPOINT: 0110006    NO. OF LANES: 1
FUNC-CLASS: 14    HPMS NO:
STATION NO: 0926    LION#:
COUNT TAKEN BY: ORG CODE: TST INITIALS: JSV
PROCESSED BY: ORG CODE: DOT INITIALS: SJW    BATCH ID: DOT-SJWr1ww12

| DIRECTION | West | TOTAL |
|---|---|---|
| NUMBER OF VEHICLES | **1903** | **1903** |
| NUMBER OF AXLES | **4018** | **4018** |
| % HEAVY VEHICLES (F4-F13) | **6.25%** | **6.25%** |
| % TRUCKS AND BUSES (F3-F13) | **16.82%** | **16.82%** |
| AXLE CORRECTION FACTOR | **0.95** | **0.95** |

| | **VEHICLE CLASS** | **F1** | **F2** | **F3** | **F4** | **F5** | **F6** | **F7** | **F8** | **F9** | **F10** | **F11** | **F12** | **F13** | **TOTAL** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NO. OF AXLES | 2 | 2 | 2 | 2.5 | 2 | 3 | 4 | 3.5 | 5 | 6 | 5 | 6 | 8.75 | |
| ENDING HOUR | 1:00 | 0 | 14 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **18** |
| | 2:00 | 1 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **14** |
| | 3:00 | 1 | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **17** |
| | 4:00 | 1 | 21 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **24** |
| | 5:00 | 1 | 20 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **26** |
| | 6:00 | 2 | 29 | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **39** |
| | 7:00 | 8 | 86 | 6 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **107** |
| | 8:00 | 8 | 136 | 9 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **164** |
| | 9:00 | 8 | 139 | 13 | 1 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **171** |
| | 10:00 | 5 | 98 | 12 | 1 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **124** |
| DIRECTION | 11:00 | 4 | 77 | 10 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **98** |
| West | 12:00 | 4 | 68 | 14 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **93** |
| | 13:00 | 6 | 102 | 17 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **133** |
| | 14:00 | 5 | 80 | 15 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **108** |
| | 15:00 | 4 | 83 | 20 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **115** |
| | 16:00 | 1 | 100 | 19 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **125** |
| | 17:00 | 2 | 91 | 14 | 1 | 2 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | **117** |
| | 18:00 | 2 | 98 | 13 | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **121** |
| | 19:00 | 2 | 82 | 9 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **97** |
| | 20:00 | 1 | 48 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **56** |
| | 21:00 | 1 | 36 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **41** |
| | 22:00 | 1 | 26 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **32** |
| | 23:00 | 1 | 29 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **34** |
| | 24:00 | 0 | 25 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **29** |
| | **TOTAL VEHICLES** | **69** | **1514** | **201** | **13** | **29** | **54** | **0** | **0** | **0** | **1** | **0** | **0** | **22** | **1903** |
| | **TOTAL AXLES** | 138 | 3028 | 402 | 32 | 58 | 162 | 0 | 0 | 0 | 6 | 0 | 0 | 192 | 4018 |
| | **GRAND TOTAL VEHICLES** | **69** | **1514** | **201** | **13** | **29** | **54** | **0** | **0** | **0** | **1** | **0** | **0** | **22** | **1903** |
| | GRAND TOTAL AXLES | 138 | 3028 | 402 | 32 | 58 | 162 | 0 | 0 | 0 | 6 | 0 | 0 | 192 | 4018 |




--- West

PEAK HOUR DATA

| DIRECTION | HOUR | COUNT | 2-WAY | HOUR | COUNT |
|---|---|---|---|---|---|
| **West** | **9** | **171** | **A.M.** | **9** | **171** |

**VEHICLE CLASSIFICATION CODES:**

F1. Motorcycles
F2. Autos*
F3. 2 Axle, 4-Tire Pickups, Vans, Motorhomes*
F4. Buses
F5. 2 Axle, 6-Tire Single Unit Trucks
F6. 3 Axle Single Unit Trucks
F7. 4 or More Axle Single Unit Trucks
F8. 4 or Less Axle Vehicles, One Unit is a Truck
F9. 5 Axle Double Unit Vehicles, One Unit is a Truck
F10. 6 or More Double Unit Vehicles, One Unit is a Truck
F11. 5 or Less Axle Multi-Unit Trucks
F12. 6 Axle Multi-Unit Trucks
F13. 7 or More Axle Multi-Unit Trucks

* INCLUDING THOSE HAULING TRAILERS

FUNCTIONAL CLASS CODES:

| RURAL | URBAN | SYSTEM |
|---|---|---|
| 01 | 11 | PRINCIPAL ARTERIAL-INTERSTATE |
| 02 | 12 | PRINCIPAL ARTERIAL-EXPRESSWAY |
| 02 | 14 | PRINCIPAL ARTERIAL-OTHER |
| 06 | 16 | MINOR ARTERIAL |
| 07 | 17 | MAJOR COLLECTOR |
| 08 | 17 | MINOR COLLECTOR |
| 09 | 19 | LOCAL SYSTEM |

**SOURCE: NYSDOT DATA SERVICES BUREAU**

# New York State Department of Transportation
## Speed Count Average Weekday Report

| | | | | | |
|---|---|---|---|---|---|
| Station: | 110926 | Start date: | Wed 03/25/2009 11:00 | Count duration: | 144 hours |
| Route #: | 913J Road name: 913J | End date: | Tue 03/31/2009 10:45 | Functional class: | 14 |
| From: | RT 32 NORTHERN RAMP | County: | Albany | Factor group: | 30 |
| To: | END AT RT 9W | Town: | BETHLEHEM | Batch ID: | DOT-SJWr1ww12 |
| Direction: | West | Speed limit: | 25 | Count taken by: | Org: TST Init: JSV |
| | | LION#: | | Processed by: | Org: DOT Init: SJW |

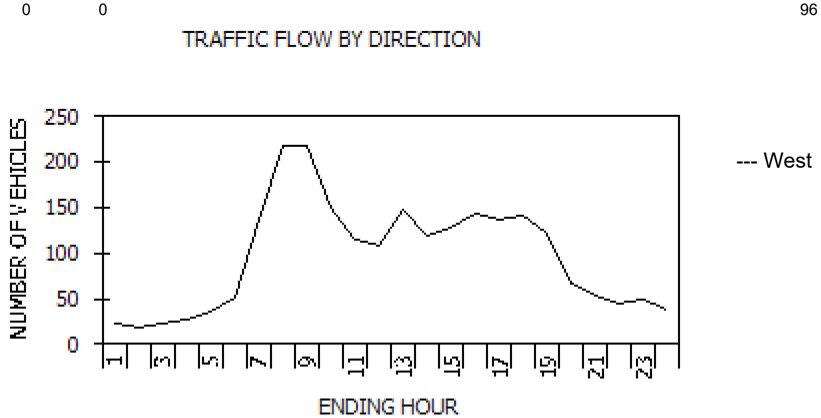
Speeds, mph

| Hour | 0.0-20.0 | 20.1-25.0 | 25.1-30.0 | 30.1-35.0 | 35.1-40.0 | 40.1-45.0 | 45.1-50.0 | 50.1-55.0 | 55.1-60.0 | 60.1-65.0 | 65.1-70.0 | 70.1-75.0 | 75.1-95.0 | % Exc 45.0 | % Exc 50.0 | % Exc 55.0 | % Exc 60.0 | % Exc 65.0 | Avg | 50th% | 85th% | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1:00 | 2 | 9 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.7 | 25.3 | 29.8 | 23 |
| 2:00 | 4 | 4 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.8 | 25.8 | 29.1 | 19 |
| 3:00 | 4 | 9 | 6 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.8 | 23.9 | 29.8 | 22 |
| 4:00 | 4 | 7 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.9 | 26.0 | 29.0 | 28 |
| 5:00 | 5 | 21 | 7 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.8 | 23.1 | 28.3 | 36 |
| 6:00 | 8 | 18 | 18 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.6 | 24.9 | 29.9 | 51 |
| 7:00 | 37 | 52 | 32 | 14 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.3 | 23.1 | 29.3 | 137 |
| 8:00 | 81 | 72 | 48 | 14 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.9 | 22.0 | 28.4 | 218 |
| 9:00 | 69 | 79 | 47 | 18 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.6 | 22.6 | 28.9 | 217 |
| 10:00 | 29 | 48 | 49 | 20 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.0 | 24.8 | 30.2 | 149 |
| 11:00 | 21 | 43 | 41 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.8 | 24.3 | 29.2 | 115 |
| 12:00 | 18 | 44 | 38 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.9 | 24.1 | 29.0 | 108 |
| 13:00 | 27 | 46 | 58 | 15 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.1 | 25.1 | 29.6 | 148 |
| 14:00 | 25 | 34 | 50 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.7 | 25.2 | 29.4 | 120 |
| 15:00 | 20 | 44 | 43 | 18 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 25.1 | 30.8 | 129 |
| 16:00 | 18 | 52 | 53 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.1 | 25.2 | 30.0 | 144 |
| 17:00 | 18 | 39 | 55 | 21 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.4 | 26.0 | 30.9 | 136 |
| 18:00 | 14 | 37 | 70 | 18 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.2 | 26.5 | 30.0 | 142 |
| 19:00 | 11 | 37 | 59 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.0 | 26.1 | 29.7 | 121 |
| 20:00 | 10 | 23 | 24 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.7 | 25.2 | 30.0 | 67 |
| 21:00 | 9 | 16 | 21 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.4 | 25.4 | 29.8 | 53 |
| 22:00 | 4 | 21 | 17 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 | 24.5 | 28.9 | 45 |
| 23:00 | 9 | 21 | 16 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.5 | 23.7 | 28.7 | 49 |
| 24:00 | 4 | 15 | 16 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 | 25.0 | 29.2 | 38 |
| Avg. Daily Total | 451 | 791 | 803 | 232 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.8 | 24.5 | 29.6 | 2315 |
| Percent | 19.5% | 34.2% | 34.7% | 10.0% | 1.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | | | | | | | | | |
| Cum. Percent | 19.5% | 53.7% | 88.3% | 98.4% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | | | | | | | | | |
| Average hour | 19 | 33 | 33 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | 96 |

| | Avg. Speed | 50th% Speed | 85th% Speed |
|---|---|---|---|
| West | 21.8 | 24.5 | 29.6 |

Peak Hour Data

| Direction | Hour | Count | 1-way | Hour | Count |
|---|---|---|---|---|---|
| West | 8 | 218 | A.M. | 8 | 218 |
| | | | P.M. | 13 | 148 |



STATION: **110061**

# New York State Department of Transportation
## Traffic Count Hourly Report

| | | | | | |
|---|---|---|---|---|---|
| ROUTE #: **NY 144** | ROAD NAME: | FROM: **ACC RT 87I** | TO: **RT 910A JCT** | COUNTY: | **Albany** |
| DIRECTION: Northbound | FACTOR GROUP: 30 | REC. SERIAL #: 0006 | FUNC. CLASS: 16 | TOWN: | **BETHLEHEM** |
| STATE DIR CODE: 1 | WK OF YR: 49 | PLACEMENT: .50 Mi N of NYS Thwy Ex 22 | NHS: no | LION#: | |
| DATE OF COUNT: 11/30/2010 | | @ REF MARKER: 144 11021077 | JURIS: NYSDOT | BIN: | 1038120 |
| NOTES LANE 1: Week 49 North Bound | | ADDL DATA: | CC Stn: | RR CROSSING: | |
| | | COUNT TYPE: AXLE PAIRS | BATCH ID: DOT-R1_DOTWW49c | HPMS SAMPLE: | |
| COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK | | PROCESSED BY: ORG CODE: DOT INITIALS: JSR | | | |

| DATE | DAY | AM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | PM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | T | **8** | **4** | **6** | **8** | **19** | **50** | **150** | **309** | **228** | **155** | **104** | **107** | **97** | **129** | **106** | **133** | **124** | **92** | **73** | **43** | **32** | **24** | **19** | **15** | 2035 | 309 | 7 |
| 1 | W | **12** | **9** | **6** | **4** | **12** | **49** | **146** | **286** | **221** | **119** | **99** | **93** | **85** | **94** | **97** | **140** | **110** | **99** | **79** | **43** | **31** | **27** | **24** | **19** | 1904 | 286 | 7 |
| 2 | T | **11** | **8** | **3** | **9** | **20** | **48** | **133** | **282** | **212** | **133** | **114** | **94** | **106** | **123** | **138** | **149** | **149** | **138** | **78** | **49** | **38** | **43** | **19** | **19** | 2116 | 282 | 7 |
| 3 | F | **5** | **10** | **7** | **14** | **24** | **52** | **134** | **266** | **236** | **120** | **123** | **108** | **121** | **111** | **145** | **163** | **136** | **137** | **100** | **60** | **43** | **35** | **31** | **29** | 2210 | 266 | 7 |
| 4 | S | **9** | **9** | **5** | **9** | **13** | **19** | **46** | **52** | **69** | **113** | **114** | **127** | **100** | **98** | **122** | **109** | **102** | **101** | **75** | **55** | **37** | **37** | **37** | **20** | 1478 | 127 | 11 |
| 5 | S | **9** | **9** | **3** | **4** | **6** | **12** | **19** | **31** | **49** | **89** | **78** | **118** | **111** | **124** | **98** | **99** | **77** | **78** | **74** | **59** | **44** | **30** | **26** | **15** | 1262 | 124 | 13 |
| 6 | M | **9** | **5** | **2** | **14** | **22** | **48** | **142** | **286** | **247** | **128** | **118** | **106** | **104** | **121** | **125** | **147** | **121** | **119** | **76** | **38** | **41** | **28** | **20** | **22** | 2089 | 286 | 7 |
| 7 | T | **10** | **9** | **4** | **14** | **19** | **57** | **136** | **299** | **232** | **164** | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| 12-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | 12-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-6 | 6-7 | 7-8 | 8-9 | 9-10 | 10-11 | 11-12 | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **9** | **8** | **5** | **10** | **19** | **50** | **137** | **282** | **224** | **133** | **110** | **100** | **96** | **114** | **113** | **139** | **123** | **110** | **74** | **42** | **35** | **29** | **20** | **19** | **2001** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 7 | 178 | 4 | 112 | 282 | 14% | 0.978 | 1.030 |

**ESTIMATED (one way)**

**AADT**

**1943**

# New York State Department of Transportation
## Traffic Count Hourly Report

ROUTE #: **NY 144** ROAD NAME: FROM: **ACC RT 87I** TO: **RT 910A JCT** COUNTY: **Albany**
DIRECTION: Southbound FACTOR GROUP: 30 REC. SERIAL #: 0006 FUNC. CLASS: 16 TOWN: **BETHLEHEM**
STATE DIR CODE: 2 WK OF YR: 49 PLACEMENT: .50 Mi N of NYS Thwy Ex 22 NHS: no LION#:
DATE OF COUNT: 11/30/2010 @ REF MARKER: 144 11021077 JURIS: NYSDOT BIN: 1038120
NOTES LANE 1: Week 49 South Bound ADDL DATA: CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R1_DOTWW49c HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: BEK PROCESSED BY: ORG CODE: DOT INITIALS: JSR

| DATE | DAY | AM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | PM 12 TO 1 | 1 TO 2 | 2 TO 3 | 3 TO 4 | 4 TO 5 | 5 TO 6 | 6 TO 7 | 7 TO 8 | 8 TO 9 | 9 TO 10 | 10 TO 11 | 11 TO 12 | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | T | **20** | **6** | **12** | **10** | **20** | **30** | **91** | **132** | **130** | **113** | **86** | **115** | **101** | **123** | **161** | **206** | **263** | **235** | **109** | **59** | **56** | **57** | **37** | **25** | 2197 | 263 | 16 |
| 1 | W | **28** | **4** | **16** | **7** | **12** | **39** | **96** | **121** | **107** | **84** | **105** | **98** | **94** | **104** | **143** | **187** | **255** | **209** | **137** | **66** | **71** | **50** | **39** | **29** | 2101 | 255 | 16 |
| 2 | T | **23** | **16** | **10** | **11** | **16** | **35** | **83** | **126** | **111** | **87** | **85** | **89** | **124** | **125** | **148** | **217** | **278** | **248** | **125** | **89** | **68** | **61** | **43** | **39** | 2257 | 278 | 16 |
| 3 | F | **22** | **19** | **9** | **19** | **19** | **30** | **80** | **132** | **136** | **104** | **95** | **94** | **122** | **133** | **160** | **235** | **260** | **245** | **129** | **85** | **61** | **67** | **59** | **45** | 2360 | 260 | 16 |
| 4 | S | **26** | **14** | **10** | **6** | **11** | **18** | **43** | **50** | **56** | **78** | **99** | **117** | **117** | **151** | **112** | **134** | **113** | **112** | **66** | **55** | **44** | **45** | **53** | **36** | 1566 | 151 | 13 |
| 5 | S | **29** | **10** | **8** | **9** | **7** | **23** | **24** | **26** | **42** | **68** | **88** | **92** | **95** | **94** | **111** | **121** | **114** | **71** | **75** | **67** | **40** | **38** | **28** | **17** | 1297 | 121 | 15 |
| 6 | M | **10** | **8** | **8** | **10** | **19** | **36** | **97** | **123** | **123** | **108** | **108** | **104** | **104** | **130** | **152** | **205** | **233** | **223** | **142** | **80** | **67** | **48** | **30** | **31** | 2199 | 233 | 16 |
| 7 | T | **19** | **10** | **9** | **15** | **14** | **38** | **80** | **137** | **125** | **107** | | | | | | | | | | | | | | | | | |

**AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)**

| | | | | | | | | | | | | | | | | | | | | | | | | ADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **22** | **11** | **11** | **12** | **16** | **33** | **86** | **125** | **119** | **98** | **94** | **98** | **104** | **117** | **148** | **200** | **251** | **224** | **125** | **72** | **65** | **53** | **36** | **30** | **2150** |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 7 | 178 | 4 | 112 | 251 | 12% | 0.978 | 1.030 |

**ESTIMATED (one way)**

**AADT**

**2087**

STATION: **110107**

# New York State Department of Transportation
## Traffic Count Hourly Report

ROUTE #: **NY 32** ROAD NAME: FROM: **RT 144 JCT** TO: **ALBANY S CITY LN** COUNTY: **Albany**
DIRECTION: Northbound FACTOR GROUP: 30 REC. SERIAL #: 0048 FUNC. CLASS: 16 TOWN: **BETHLEHEM**
STATE DIR CODE: 1 WK OF YR: 45 PLACEMENT: 50 Ft S of S port rd NHS: no LION#:
DATE OF COUNT: 11/03/2010 @ REF MARKER: 32 11042000 JURIS: NYSDOT BIN: 1022450
NOTES LANE 1: Week 45 North Bound ADDL DATA: CC Stn: RR CROSSING:
COUNT TYPE: AXLE PAIRS BATCH ID: DOT-R1_SC_WW45a HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: --- PROCESSED BY: ORG CODE: DOT INITIALS: JSR

| DATE | DAY | 12 TO 1 AM | 1 TO 2 AM | 2 TO 3 AM | 3 TO 4 AM | 4 TO 5 AM | 5 TO 6 AM | 6 TO 7 AM | 7 TO 8 AM | 8 TO 9 AM | 9 TO 10 AM | 10 TO 11 AM | 11 TO 12 AM | 12 TO 1 PM | 1 TO 2 PM | 2 TO 3 PM | 3 TO 4 PM | 4 TO 5 PM | 5 TO 6 PM | 6 TO 7 PM | 7 TO 8 PM | 8 TO 9 PM | 9 TO 10 PM | 10 TO 11 PM | 11 TO 12 PM | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | W | | | | | | | | | | | | | | | | | | | | **96** | **55** | **42** | **42** | **19** | | | |
| 4 | T | **28** | **14** | **17** | **26** | **37** | **110** | **269** | **606** | **577** | **327** | **227** | **248** | **288** | **237** | **243** | **250** | **243** | **236** | **137** | **88** | **63** | **51** | **42** | **26** | 4390 | 606 | 7 |
| 5 | F | **24** | **15** | **14** | **23** | **28** | **114** | **264** | **634** | **545** | **341** | **237** | **285** | **286** | **264** | **267** | **271** | **234** | **235** | **167** | **107** | **53** | **50** | **52** | **28** | 4538 | 634 | 7 |
| 6 | S | **21** | **13** | **10** | **18** | **19** | **39** | **85** | **116** | **128** | **140** | **164** | **190** | **180** | **158** | **155** | **168** | **154** | **157** | **119** | **80** | **61** | **55** | **40** | **28** | 2298 | 190 | 11 |
| 7 | S | **22** | **13** | **4** | **11** | **5** | **16** | **19** | **57** | **50** | **84** | **107** | **130** | **133** | **144** | **153** | **148** | **149** | **126** | **119** | **99** | **76** | **45** | **35** | **22** | 1767 | 153 | 14 |
| 8 | M | **20** | **25** | **18** | **17** | **13** | **31** | **137** | **278** | **615** | **559** | **321** | **236** | **197** | **211** | **219** | **201** | **205** | **209** | **171** | **121** | **76** | **46** | **30** | **35** | 3991 | 615 | 8 |
| 9 | T | **23** | **20** | **17** | **14** | **30** | **26** | **116** | **314** | **620** | **543** | **342** | **234** | **253** | **291** | **265** | **252** | **233** | **222** | **202** | **172** | **89** | **69** | **47** | **34** | 4428 | 620 | 8 |
| 10 | W | **20** | **32** | **14** | **16** | **19** | **30** | **113** | **299** | **613** | **535** | **346** | **249** | **251** | **261** | **289** | **267** | **277** | **247** | **244** | **143** | **88** | **60** | **52** | **41** | 4506 | 613 | 8 |
| 11 | T | **25** | **27** | **14** | **21** | **22** | **24** | **99** | **259** | **376** | **358** | **264** | **258** | **229** | **272** | **233** | **260** | **221** | **241** | **210** | **146** | **79** | **70** | **48** | **31** | 3787 | 376 | 8 |
| 12 | F | **21** | **28** | **15** | **17** | **20** | **29** | **119** | **264** | **448** | | | | | | | | | | | | | | | | | | |
| 13 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon) | **23** | **22** | **15** | **20** | **25** | **55** | **156** | **371** | **530** | **434** | **284** | **246** | **239** | **248** | **244** | **241** | **231** | **226** | **189** | **125** | **73** | **55** | **43** | **30** | **ADT 4125** | | |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor | ESTIMATED (one way) |
|---|---|---|---|---|---|---|---|---|
| 10 | 206 | 7 | 140 | 530 | 13% | 0.978 | 1.030 | **AADT 4005** |

STATION: **110107**

# New York State Department of Transportation

## Traffic Count Hourly Report



ROUTE #: **NY 32** ROAD NAME:
DIRECTION: Southbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 45
DATE OF COUNT: 11/03/2010
NOTES LANE 1: Week 45 South Bound

COUNT TAKEN BY: ORG CODE: TST INITIALS: ---

FROM: **RT 144 JCT**
REC. SERIAL #: 0048
PLACEMENT: 50 Ft S of S port rd
@ REF MARKER: 32 11042000
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: JSR

TO: **ALBANY S CITY LN**
FUNC. CLASS: 16
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: DOT-R1_SC_WW45a

COUNTY: **Albany**
TOWN: **BETHLEHEM**
LION#:
BIN: 1022450
RR CROSSING:
HPMS SAMPLE:

| DATE | DAY | 12 TO 1 (AM) | 1 TO 2 (AM) | 2 TO 3 (AM) | 3 TO 4 (AM) | 4 TO 5 (AM) | 5 TO 6 (AM) | 6 TO 7 (AM) | 7 TO 8 (AM) | 8 TO 9 (AM) | 9 TO 10 (AM) | 10 TO 11 (AM) | 11 TO 12 (AM) | 12 TO 1 (PM) | 1 TO 2 (PM) | 2 TO 3 (PM) | 3 TO 4 (PM) | 4 TO 5 (PM) | 5 TO 6 (PM) | 6 TO 7 (PM) | 7 TO 8 (PM) | 8 TO 9 (PM) | 9 TO 10 (PM) | 10 TO 11 (PM) | 11 TO 12 (PM) | DAILY TOTAL | DAILY HIGH COUNT | DAILY HIGH HOUR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | W | | | | | | | | | | | | | | | | | | | | **205** | **145** | **123** | **85** | **67** | | | |
| 4 | T | **47** | **30** | **19** | **30** | **48** | **60** | **150** | **252** | **274** | **268** | **235** | **305** | **366** | **319** | **365** | **504** | **689** | **702** | **283** | **178** | **144** | **115** | **114** | **64** | 5561 | 702 | 17 |
| 5 | F | **32** | **30** | **27** | **30** | **33** | **82** | **172** | **253** | **287** | **279** | **262** | **317** | **378** | **336** | **431** | **526** | **729** | **640** | **308** | **167** | **146** | **119** | **109** | **85** | 5778 | 729 | 16 |
| 6 | S | **65** | **36** | **25** | **26** | **22** | **46** | **69** | **122** | **119** | **141** | **177** | **219** | **272** | **264** | **261** | **261** | **247** | **227** | **170** | **128** | **118** | **120** | **86** | **79** | 3300 | 272 | 12 |
| 7 | S | **49** | **33** | **33** | **24** | **14** | **19** | **26** | **46** | **67** | **67** | **123** | **132** | **197** | **232** | **225** | **228** | **222** | **201** | **188** | **146** | **123** | **88** | **79** | **41** | 2603 | 232 | 13 |
| 8 | M | **37** | **35** | **26** | **17** | **24** | **29** | **83** | **196** | **256** | **249** | **265** | **239** | **283** | **284** | **279** | **304** | **441** | **651** | **646** | **226** | **139** | **107** | **105** | **66** | 4987 | 651 | 17 |
| 9 | T | **55** | **41** | **33** | **26** | **45** | **39** | **58** | **170** | **253** | **274** | **270** | **270** | **315** | **338** | **343** | **378** | **549** | **711** | **684** | **307** | **164** | **118** | **120** | **81** | 5642 | 711 | 17 |
| 10 | W | **71** | **48** | **22** | **22** | **22** | **41** | **74** | **168** | **284** | **270** | **309** | **298** | **323** | **329** | **354** | **426** | **543** | **700** | **710** | **295** | **180** | **167** | **138** | **89** | 5883 | 710 | 18 |
| 11 | T | **70** | **30** | **41** | **29** | **22** | **27** | **68** | **161** | **265** | **229** | **257** | **289** | **284** | **339** | **338** | **394** | **457** | **533** | **467** | **229** | **139** | **149** | **115** | **77** | 5009 | 533 | 17 |
| 12 | F | **54** | **40** | **24** | **25** | **30** | **30** | **75** | **182** | **254** | | | | | | | | | | | | | | | | | | |
| 13 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | W | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | F | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | M | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)** | | **54** | **35** | **27** | **26** | **32** | **45** | **95** | **193** | **262** | **256** | **260** | **280** | **307** | **315** | **329** | **392** | **524** | **645** | **546** | **235** | **149** | **127** | **111** | **72** | **ADT** 5317 | | |

| DAYS Counted | HOURS Counted | WEEKDAYS Counted | WEEKDAY Hours | AVERAGE WEEKDAY High Hour | AVERAGE WEEKDAY % of day | Axle Adj. Factor | Seasonal/Weekday Adjustment Factor |
|---|---|---|---|---|---|---|---|
| 10 | 206 | 7 | 140 | 645 | 12% | 0.978 | 1.030 |

**ESTIMATED (one way)**

**AADT**
**5162**

# APPENDIX B

# TRAFFIC CALCULATIONS

- Gateway Commerce Center Trip Generation Table
- Gateway Commerce Center Trip Generation Figure
- CME Oversized Truck Route Figure
- Route 9W/Feura Bush LOS Table
- NYS Route 144 (River Road) Accident Data
- HCS7 Freeway Merge Report
- Truck LOS Table
- Figure 14a
- Figure 15a
- Figure SD-01
- NYS Route 144 at Glenmont Road Gap Analysis Calculations
- NYSDOT Traffic Volume Report – Historic Volumes
- Background Traffic Growth Regression Analysis
- Trip Generation Calculations
- Truck Trip Generation Calculations

## 3.0 Traffic Assessment

Trip Generation

Trip generation determines the quantity of traffic expected to travel to and from a given site. The Institute of Transportation Engineers' (ITE) *Trip Generation*, 9th Edition, is the industry standard used for estimating trip generation for proposed land uses based on data collected at similar uses. Since the tenants for the site are currently unknown, the exact mix of passenger and heavy vehicle traffic at the site cannot be determined; however, generally peak hour trips occurring during commuter travel periods to and from light industrial sites are primarily passenger vehicle trips rather than heavy vehicle trips. Trip generation for the proposed project was estimated using land use code (LUC) 110 for General Light Industrial. Table 2 summarizes the trip generation estimate for the AM and PM peak hours which includes both passenger vehicles and heavy vehicles.

**Table 2 – Trip Generation Summary**

| General Light Industrial | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Enter | Exit | Total | Enter | Exit | Total |
| Trips | 97 | 13 | 110 | 10 | 74 | 84 |

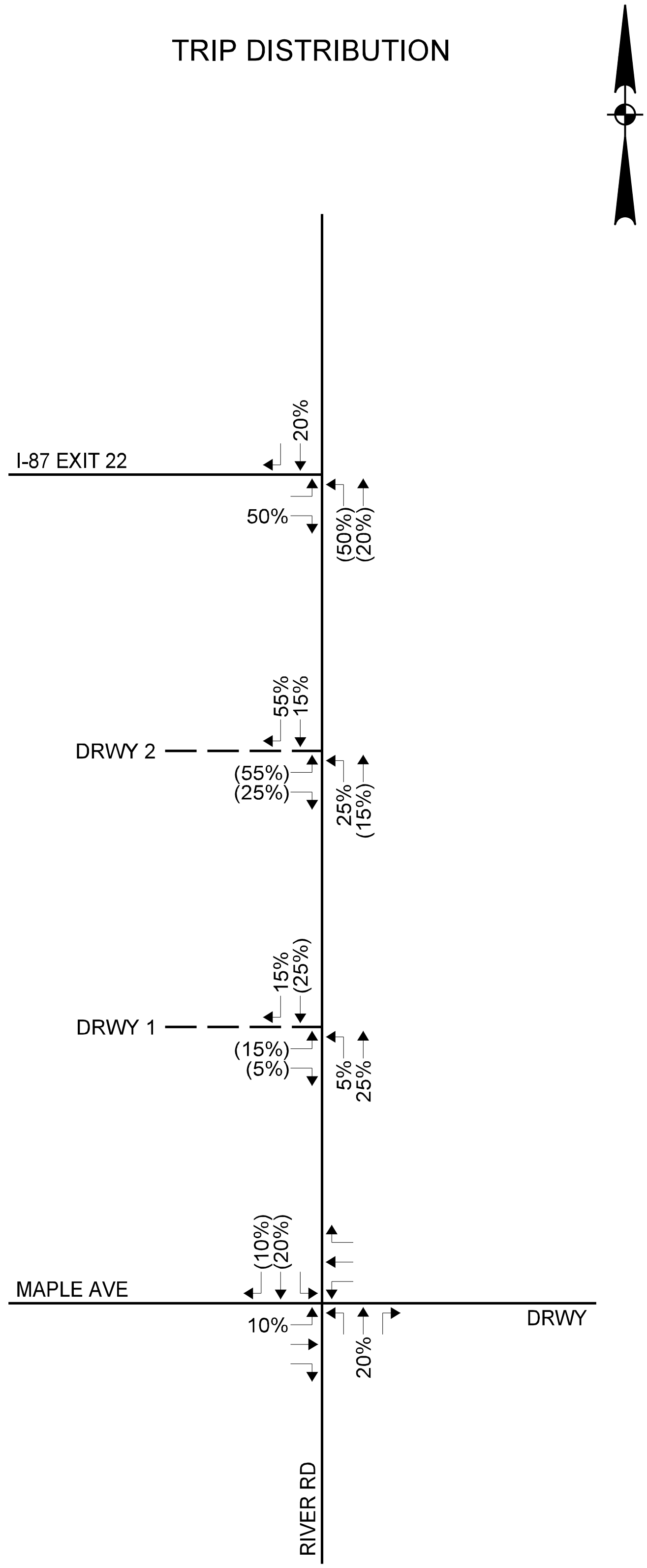
Table 2 shows that the site will generate 110 new vehicle trips during the AM peak hour (97 entering and 13 exiting) and 84 new vehicle trips during the PM peak hour (10 entering and 74 exiting). It is noted that the new trips generated by the site are less than the NYSDOT and ITE threshold of 100 site generated vehicles on any one approach for off-site intersection analysis. This guidance was developed as a tool to identify locations where the magnitude of traffic generated has the potential to impact operations at off-site intersections and screen out locations from requiring detailed analysis that do not reach the 100 vehicle threshold. However, due to the proximity of the adjacent intersections to the north and south of the site and as requested by the Town of Bethlehem, a detailed analysis of the River Road/I-87 Interchange 22 and River Road/Maple Avenue intersections were included in this study along with the detailed analysis of the site driveways.

Future Traffic Volumes

Future traffic volume projections typically include trips associated with specific "other development" projects approved in the study area and a general background growth rate. Conversations with a representative from the Town of Bethlehem indicated that there are no "other development" projects that will increase traffic volumes in the study area. A regression analysis using traffic volume data published by the NYSDOT shows that traffic volumes in the study area have increased by approximately one percent per year over the last several years; therefore, the 2016 Existing traffic volumes were increased by one percent per year to represent the 2018 No-Build traffic volumes as illustrated on Figure 1.

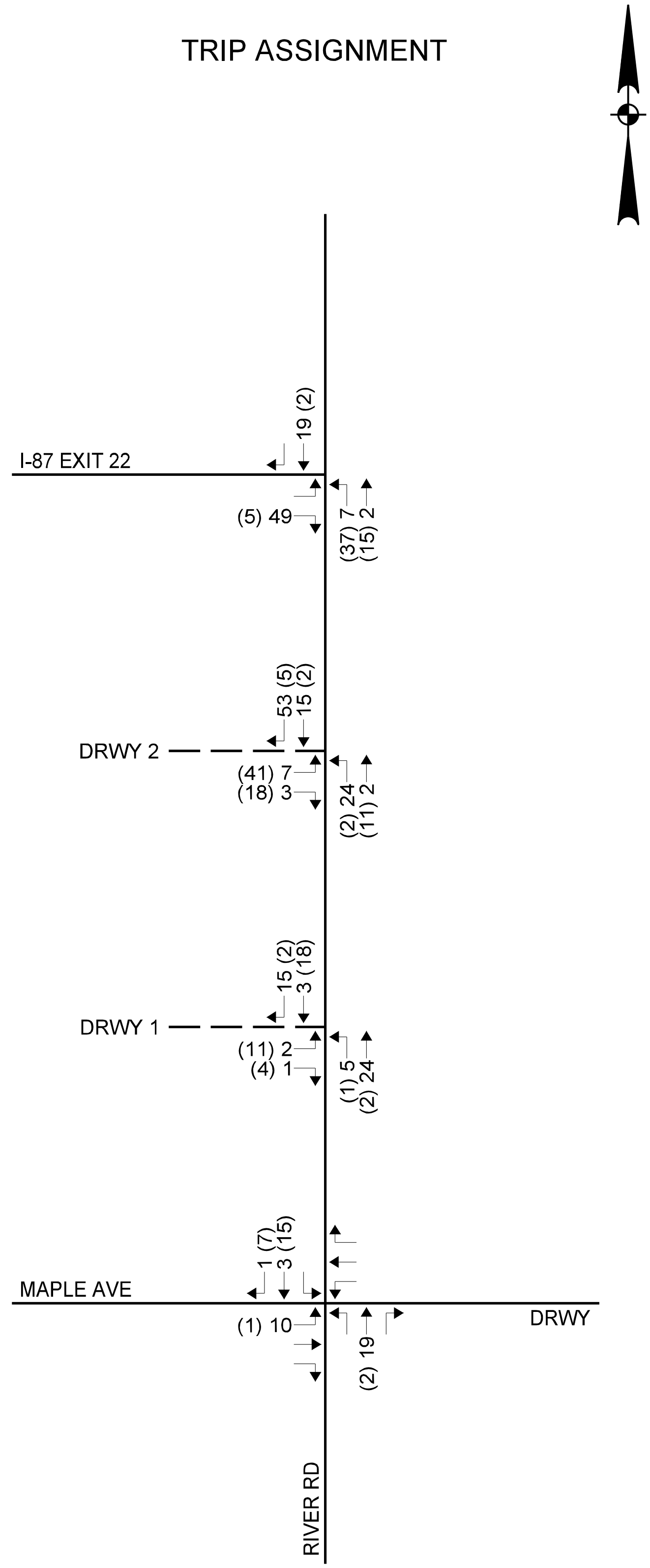
Trips associated with the proposed project were distributed at the study area intersections based on existing and anticipated travel patterns. It is expected that 20% of the site generated traffic will travel to and from the north, 50% will travel to and from the site via I-87 Exit 22, 20% will travel to and from the south, and the remaining 10% will travel to and from the west on Maple Avenue as shown on Figure 2. Trips were assigned to the site driveways and the two adjacent intersections to the north and south of the site (as shown on Figure 2) to develop the 2018 Build

# TRIP DISTRIBUTION




ENTERING (EXITING)

# TRIP ASSIGNMENT




AM PEAK HOUR (PM PEAK HOUR)

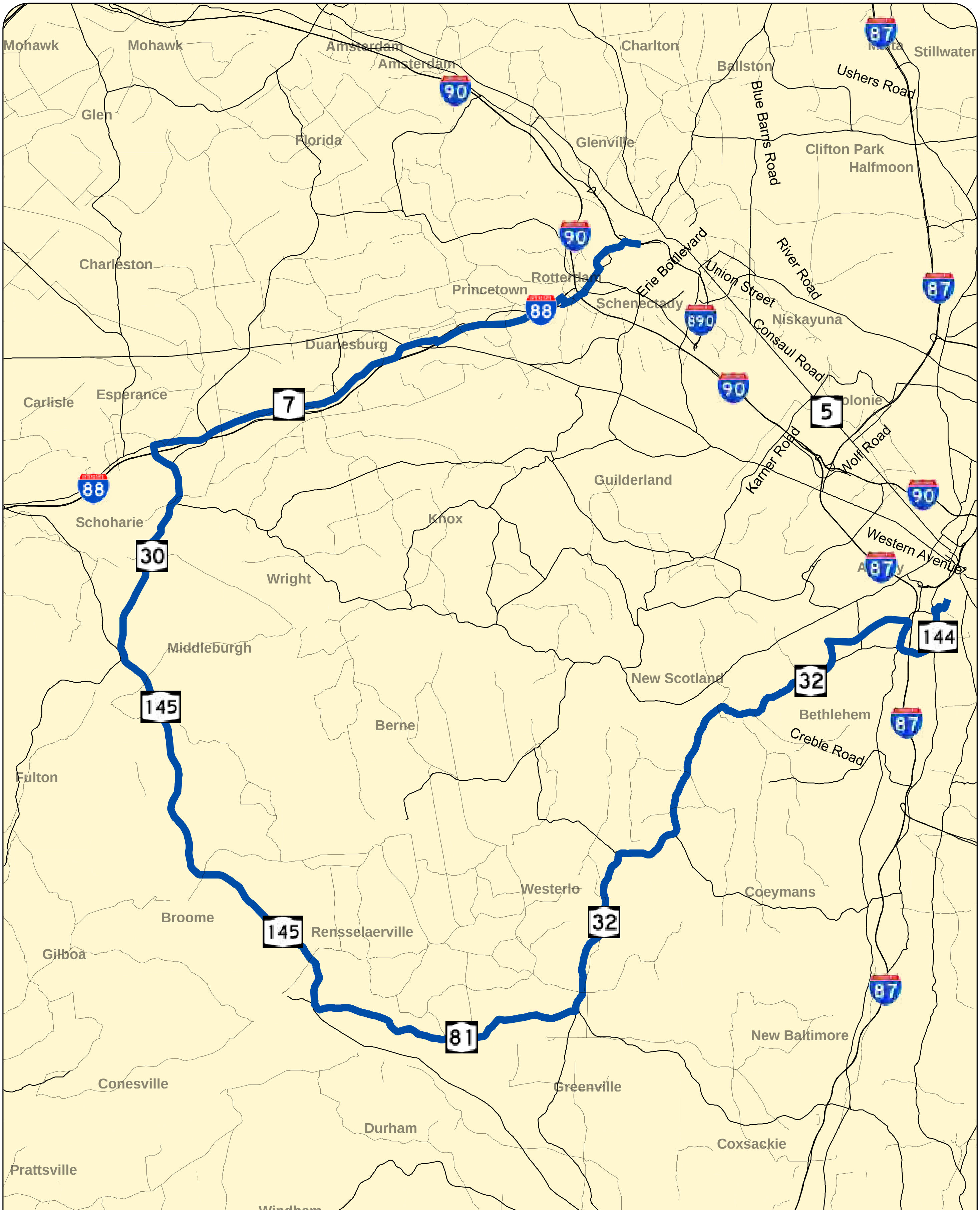
TRIP DISTRIBUTION / ASSIGNMENT

GATEWAY COMMERCE CENTER
TOWN OF BETHLEHEM, NEW YORK

Creighton Manning

PROJECT: 115-301 | DATE: 03/2016 | FIGURE: 2

N:\Projects\2015\115-301 Selkirk Industrial\cadd\dgn\figures\115-301_fig_traf.dgn




PROPOSED OVERSIZED
TRUCK ROUTE

PORT TO GE TRAFFIC PLAN
DAGEN TRUCKING

Creighton Manning

| PROJECT: 119-187 | DATE: 09/2019 | FIGURE: 1 |
|---|---|---|

90
Western Avenue
Albany
87
443
144
Glenmont Road
32
9W
Bethlehem
Creble Road
87
Maple Avenue

## Table C-3 – Build Level of Service and Delay (sec) – AM Peak Hour

| US Route 9W/Glenmont Rd/ Feura Bush Rd Intersection | | | Control | AM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ETC (2020) | | | ETC+10 (2030) | | | ETC+20 (2040) | | |
| | | | | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue |
| Signalized Geometric Improvements | Feura Bush Rd EB | L | S | B (17.1) | 0.53 | 175 | C (24.4) | 0.64 | 225 | C (24.7) | 0.65 | 225 |
| | | TR | | B (16.5) | 0.32 | 75 | C (22.3) | 0.47 | 150 | C (22.6) | 0.50 | 150 |
| | Glenmont Rd WB | L | | C (22.7) | 0.16 | 50 | C (26.1) | 0.22 | 50 | C (26.2) | 0.22 | 50 |
| | | T | | C (26.7) | 0.49 | 75 | C (31.6) | 0.60 | 100 | C (31.7) | 0.60 | 100 |
| | | R | | C (28.4) | 0.57 | 25 | C (31.7) | 0.47 | 50 | C (31.9) | 0.48 | 50 |
| | US Route 9W NB | L | | B (13.0) | 0.02 | 25 | B (14.1) | 0.03 | 25 | B (14.1) | 0.03 | 25 |
| | | TR | | B (18.8) | 0.83 | 300 | C (26.1) | 0.90 | 450 | C (26.3) | 0.90 | 450 |
| | US Route 9W SB | L | | C (24.8) | 0.13 | 25 | C (30.5) | 0.10 | 25 | C (30.7) | 0.11 | 25 |
| | | T | | B (11.4) | 0.31 | 100 | B (11.5) | 0.40 | 150 | B (11.5) | 0.40 | 150 |
| | | R | | A (2.7) | 0.00 | 0 | A (2.7) | 0.00 | 0 | A (2.7) | 0.01 | 0 |
| | | Overall | | B (18.1) | -- | -- | C (23.3) | -- | -- | C (23.5) | -- | -- |
| Single Lane | US Route 9W NB | LTR | R | C (32.5) | 0.88 | 475 | **F (98.8)** | **1.16** | 1425 | **F (107)** | **1.16** | 1500 |
| | US Route 9W SB | LTR | | A (7.3) | 0.37 | 75 | A (9.4) | 0.49 | 100 | A (9.5) | 0.49 | 100 |
| | Feura Bush Rd EB | LTR | | B (11.1) | 0.55 | 125 | B (17.4) | 0.70 | 225 | B (18.4) | 0.72 | 250 |
| | Glenmont Rd WB | LTR | | B (16.2) | 0.46 | 75 | C (21.4) | 0.58 | 100 | C (21.1) | 0.57 | 100 |
| | | Overall | | B (18.9) | -- | -- | D (47.3) | -- | -- | D (50.6) | -- | -- |
| Hybrid | US Route 9W NB | LT | R | B (16.5) | 0.70 | 225 | C (32.5) | 0.89 | 475 | C (34.8) | 0.90 | 500 |
| | | R | | A (5.6) | 0.09 | 25 | A 6.1) | 0.12 | 25 | A (6.2) | 0.12 | 25 |
| | US Route 9W SB | LT | | A (5.4) | 0.24 | 50 | A (6.8) | 0.34 | 50 | A (6.8) | 0.34 | 50 |
| | | R | | A (4.5) | 0.12 | 25 | A (4.7) | 0.13 | 25 | A (4.7) | 0.13 | 25 |
| | Feura Bush Rd EB | L | | A (6.8) | 0.33 | 50 | A (8.1) | 0.38 | 50 | A (8.2) | 0.39 | 50 |
| | | TR | | A (5.6) | 0.19 | 25 | A (7.2) | 0.27 | 50 | A (7.4) | 0.28 | 50 |
| | Glenmont Rd WB | L | | A (8.3) | 0.11 | 25 | B (10.3) | 0.16 | 25 | B (10.4) | 0.16 | 25 |
| | | TR | | B (10.1) | 0.29 | 50 | B (12.9) | 0.37 | 50 | B (13.0) | 0.37 | 50 |
| | | Overall | | A (9.9) | -- | -- | B (16.3) | -- | -- | B (17.1) | -- | -- |

## Table C-4 – Build Level of Service and Delay (sec) – PM Peak Hour

| US Route 9W/Glenmont Rd/ Feura Bush Rd Intersection | | | Control | PM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ETC (2020) | | | ETC+10 (2030) | | | ETC+20 (2040) | | |
| | | | | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue |
| Signalized Geometric Improvements | Feura Bush Rd EB | L | S | B (12.9) | 0.39 | 100 | C (20.7) | 0.56 | 175 | C (20.7) | 0.57 | 175 |
| | | TR | | B (14.9) | 0.23 | 75 | B (19.5) | 0.34 | 125 | B (19.3) | 0.35 | 125 |
| | Glenmont Rd WB | L | | B (18.7) | 0.34 | 100 | C (23.1) | 0.42 | 125 | C (22.7) | 0.41 | 125 |
| | | T | | C (25.1) | 0.71 | 150 | C (33.0) | 0.81 | 250 | C (34.1) | 0.82 | 250 |
| | | R | | C (23.2) | 0.27 | 50 | C (26.9) | 0.28 | 75 | C (26.5) | 0.27 | 75 |
| | US Route 9W NB | L | | C (23.3) | 0.13 | 25 | C (33.0) | 0.17 | 25 | C (33.2) | 0.12 | 25 |
| | | TR | | B (17.2) | 0.64 | 200 | B (18.6) | 0.63 | 275 | B (19.4) | 0.65 | 300 |
| | US Route 9W SB | L | | C (22.2) | 0.17 | 25 | C (24.1) | 0.05 | 25 | C (25.1) | 0.05 | 25 |
| | | T | | B (18.0) | 0.70 | 225 | C (26.5) | 0.84 | 425 | C (27.8) | 0.86 | 425 |
| | | R | | A (5.1) | 0.26 | 25 | A (6.0) | 0.24 | 75 | A (6.3) | 0.24 | 75 |
| | | Overall | | B (16.6) | -- | -- | C (22.4) | -- | -- | C (23.0) | -- | -- |
| Single Lane | US Route 9W NB | LTR | R | B (11.5) | 0.54 | 125 | B (15.6) | 0.66 | 200 | B (16.1) | 0.66 | 200 |
| | US Route 9W SB | LTR | | **F (65.9)** | **1.05** | 1250 | **F (190)** | **1.37** | 2825 | **F (196)** | 1.38 | 2900 |
| | Feura Bush Rd EB | LTR | | B (15.4) | 0.58 | 125 | C (24.3) | 0.76 | 225 | C (25.6) | 0.77 | 225 |
| | Glenmont Rd WB | LTR | | C (20.1) | 0.70 | 175 | D (51.8) | 0.96 | 500 | E (59.0) | 0.99 | 600 |
| | | Overall | | D (36.1) | -- | | **F (94.0)** | -- | | **F (97.8)** | -- | -- |
| Hybrid | US Route 9W NB | LT | R | A (8.8) | 0.44 | 75 | B (10.6) | 0.51 | 100 | B (10.7) | 0.52 | 100 |
| | | R | | A (4.5) | 0.05 | 25 | A (5.1) | 0.08 | 25 | A (5.2) | 0.08 | 25 |
| | US Route 9W SB | LT | | B (11.2) | 0.56 | 125 | C (22.5) | 0.80 | 325 | C (23.1) | 0.81 | 350 |
| | | R | | A (9.0) | 0.42 | 75 | B (10.1) | 0.45 | 75 | B (10.3) | 0.45 | 75 |
| | Feura Bush Rd EB | L | | A (8.6) | 0.33 | 50 | B (12.0) | 0.44 | 75 | B (12.1) | 0.44 | 75 |
| | | TR | | A( 7.6) | 0.20 | 25 | B (11.5) | 0.36 | 50 | B (12.0) | 0.38 | 50 |
| | Glenmont Rd WB | L | | A (8.0) | 0.25 | 25 | A (9.3) | 0.30 | 50 | A (9.3) | 0.30 | 50 |
| | | TR | | A (9.3) | 0.38 | 50 | B (13.4) | 0.55 | 100 | B (14.2) | 0.57 | 125 |
| | | Overall | | A (9.2) | -- | -- | B (14.0) | -- | -- | B (14.4) | -- | -- |

**Table C-5 – Build Level of Service and Delay (sec) – Saturday Peak Hour**

| US Route 9W/Glenmont Rd/ Feura Bush Rd Intersection | | | | Control | Saturday Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ETC (2020) | | | ETC+10 (2030) | | | ETC+20 (2040) | | |
| | | | | | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue |
| Signalized Geometric Improvements | Feura Bush Rd EB | | L | S | B (17.4) | 0.57 | 175 | C (34.3) | 0.85 | 250 | D (35.3) | 0.86 | 250 |
| | | | TR | | B (16.1) | 0.14 | 50 | B (19.3) | 0.39 | 150 | B (19.5) | 0.40 | 175 |
| | Glenmont Rd WB | | L | | B (19.8) | 0.28 | 75 | C (21.1) | 0.31 | 100 | C (21.3) | 0.31 | 100 |
| | | | T | | C (27.0) | 0.72 | 150 | D (38.6) | 0.85 | 325 | D (39.6) | 0.86 | 325 |
| | | | R | | C (25.1) | 0.32 | 50 | C (26.2) | 0.31 | 75 | C (26.2) | 0.30 | 75 |
| | US Route 9W NB | | L | | B (19.0) | 0.10 | 25 | C (25.3) | 0.15 | 50 | C (25.1) | 0.12 | 25 |
| | | | TR | | B (18.3) | 0.72 | 275 | C (25.3) | 0.79 | 375 | C (25.9) | 0.80 | 400 |
| | US Route 9W SB | | L | | C (25.4) | 0.22 | 50 | C (33.5) | 0.26 | 50 | C (34.1) | 0.26 | 50 |
| | | | T | | B (15.1) | 0.49 | 175 | B (19.1) | 0.58 | 250 | B (19.1) | 0.57 | 250 |
| | | | R | | A (4.8) | 0.21 | 50 | A (6.8) | 0.17 | 50 | A (6.9) | 0.17 | 50 |
| | | Overall | | | B (17.6) | -- | -- | C (25.8) | -- | -- | C (26.4) | -- | -- |
| Single Lane | US Route 9W NB | | LTR | R | C (21.4) | 0.76 | 275 | D (53.2) | 0.97 | 600 | D (53.4) | 0.97 | 600 |
| | US Route 9W SB | | LTR | | C (30.5) | 0.89 | 600 | D (43.0) | 0.96 | 775 | D (41.5) | 0.95 | 775 |
| | Feura Bush Rd EB | | LTR | | B (18.5) | 0.70 | 200 | D (43.2) | 0.94 | 550 | D (43.2) | 0.94 | 550 |
| | Glenmont Rd WB | | LTR | | C (33.1) | 0.82 | 225 | **F (181)** | **1.32** | 1575 | **F (186)** | **1.33** | 1600 |
| | | Overall | | | C (26.0) | -- | -- | E (77.7) | -- | -- | E (78.6) | -- | -- |
| Hybrid | US Route 9W NB | | LT | R | B (13.3) | 0.61 | 150 | C (20.2) | 0.74 | 225 | C (20.3) | 0.74 | 225 |
| | | | R | | A (5.1) | 0.07 | 25 | A (6.3) | 0.11 | 25 | A (6.3) | 0.11 | 25 |
| | US Route 9W SB | | LT | | A (8.6) | 0.43 | 75 | B (13.1) | 0.59 | 125 | B (13.0) | 0.58 | 125 |
| | | | R | | A (8.5) | 0.41 | 50 | A (9.6) | 0.40 | 75 | A (9.7) | 0.40 | 75 |
| | Feura Bush Rd EB | | L | | A (8.8) | 0.40 | 75 | B (11.6) | 0.51 | 100 | B (11.6) | 0.51 | 100 |
| | | | TR | | A (7.3) | 0.24 | 25 | A (9.6) | 0.36 | 50 | A (9.7) | 00.37 | 50 |
| | Glenmont Rd WB | | L | | A (8.9) | 0.23 | 25 | B (10.6) | 0.28 | 50 | B (10.8) | 0.29 | 50 |
| | | | TR | | B (12.7) | 0.48 | 75 | C (33.1) | 0.83 | 250 | C (33.5) | 0.84 | 250 |
| | | Overall | | | B (10.0) | -- | -- | B (16.9) | -- | -- | B (17.0) | -- | -- |

**Summary of Level of Service (LOS) Findings:**

Alternative 1 – Traffic Signal with Geometric Improvements:

The level of service analysis indicates that the following geometric improvements will be required to provide adequate operations at this intersection:

- Exclusive northbound and southbound left turn lanes on US Route 9W
- An exclusive left turn lane and a separate right turn lane on the westbound Glenmont Road approach.

The analysis indicates that a traffic signal will operate at an overall LOS B/C through the design year. All intersection movements will operate at LOS C or better during the AM and PM peak hours through ETC+20 conditions while all intersection movements will operate at LOS D or better during the midday Saturday peak hour through ETC+20 conditions.

Alternative 2 – Single Lane Roundabout:

The level of service analysis for the AM peak hour indicates that a single lane roundabout will operate at an overall LOS B during ETC conditions and an overall LOS D during ETC+10 and ETC+20 conditions with the southbound US Route 9W approach operating at LOS F during ETC+10 conditions. During the PM peak hour, a single lane roundabout will operate at an overall LOS D during ETC conditions and an overall LOS F during ETC+10 and ETC+20 conditions with the northbound US Route 9W approach operating at LOS F through ETC+20 conditions. The level of service analysis for the Saturday peak hour indicates that a single lane roundabout will operate at an overall LOS C during ETC conditions and an overall LOS E during ETC+10 and ETC+20 conditions with the westbound Glenmont Road approach operating at LOS F during ETC+10 conditions.

**ACCIDENT ANALYSIS DATA -NYS ROUTE 144 (RIVER ROAD)**

| Accident Date | Accident Time | First Harmful Event | Distance Type | At Intersection | Intersection | No Fatal Injuries | LightConditions | Number Injured | Location of F | Contributing | Road | Property Damage | Reference Marker | Number Killed | Weather Cor | Number Vehicles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/3/2016 | 19:56 | 07 | | Y | READ RD | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021084 | 0 | 2 | 1 |
| 2/13/2016 | 17:46 | 01 | | Y | SIMMONS RD | 0.00 | 5 | 0 | 1 | 18 | RIVER RD | N | 144 11021077 | 0 | 1 | 2 |
| 2/26/2016 | 15:59 | 01 | | Y | NYS THRUWAY | 0.00 | 1 | 0 | 1 | 04 | 1273 RIVER RD | N | 144 11021052 | 0 | 1 | 2 |
| 2/28/2016 | 19:55 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | 144 11021073 | 0 | 2 | 1 |
| 3/21/2016 | 15:13 | 12 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | Y | 144 11021098 | 0 | 2 | 1 |
| 4/8/2016 | 20:27 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021072 | 0 | 1 | 1 |
| 4/17/2016 | 01:00 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1083 RIVER RD | N | | 0 | 1 | 1 |
| 5/14/2016 | 21:18 | 01 | | Y | I 87 CONN | 0.00 | 5 | 0 | 1 | 27 | RIVER RD | Y | 144 11021053 | 0 | 3 | 2 |
| 5/16/2016 | 16:01 | 23 | | Y | BEAVER DAM RD | 0.00 | 1 | 0 | 2 | 26 | SR 144 | Y | 144 11021061 | 0 | 1 | 1 |
| 5/25/2016 | 07:50 | 30 | 1 | N | | 0.00 | 1 | 1 | 1 | 08 | RIVER RD | Y | 144 11021067 | 0 | 1 | 1 |
| 6/2/2016 | 17:53 | 01 | | Y | RIVER RD | 0.00 | 1 | 0 | 1 | 09 | EXIT 22 RAMP | N | 144 11021052 | 0 | 1 | 2 |
| 6/5/2016 | 20:29 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | | 0 | 3 | 1 |
| 6/13/2016 | 15:17 | 01 | | Y | I87 RAMP | 0.00 | 1 | 0 | 1 | 04 | RIVER RD | N | | 0 | 1 | 2 |
| 6/16/2016 | 22:37 | 07 | | Y | SIMMONS RD | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021077 | 0 | 1 | 1 |
| 6/30/2016 | 18:31 | 01 | | Y | RIVER RD | 0.00 | 1 | 1 | 1 | 07 | ST RT. 144 | N | | 0 | 1 | 2 |
| 7/8/2016 | 16:20 | 01 | | Y | GIBSON RD | 0.00 | 1 | 1 | 1 | 77 | RIVER RD | Y | 144 11021076 | 0 | 2 | 2 |
| 7/15/2016 | 19:04 | 12 | 2 | N | | 0.00 | 1 | 0 | 1 | 19 | RIVER RD | N | 144 11021089 | 0 | 3 | 1 |
| 7/21/2016 | 07:13 | 07 | | Y | OLD RIVER RD | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021000 | 0 | 1 | 1 |
| 7/26/2016 | 11:27 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021081 | 0 | 1 | 1 |
| 8/28/2016 | 04:36 | 01 | | Y | BARENT WINNE RD | 0.00 | 5 | 1 | 1 | 02 | RIVER RD | N | 144 11021066 | 0 | 1 | 2 |
| 9/8/2016 | 15:15 | 01 | | Y | GLENMONT RD | 0.00 | 1 | 0 | 1 | 05 | RIVER RD | N | 144 11021000 | 0 | 2 | 2 |
| 9/27/2016 | 16:31 | 01 | | Y | HALTER RD | 0.00 | 1 | 0 | 1 | 04 | RIVER RD | N | 144 11021107 | 0 | 1 | 2 |
| 10/4/2016 | 13:50 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 77 | RIVER RD | N | 144 11021079 | 0 | 1 | 2 |
| 10/11/2016 | 21:04 | 23 | 1 | N | | 0.00 | 5 | 0 | 2 | 61 | RIVER RD | N | 144 11021057 | 0 | 1 | 1 |
| 10/13/2016 | 17:39 | 01 | | Y | RIVER RD | 0.00 | 1 | 0 | 1 | 09 | RAMP | N | 144 11021052 | 0 | 2 | 2 |
| 10/25/2016 | 18:01 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | 144 11021074 | 0 | 2 | 1 |
| 10/27/2016 | 15:49 | 23 | 1 | N | | 0.00 | 1 | 0 | 2 | 66 | RIVER RD | N | 144 11021046 | 0 | 5 | 1 |
| 11/9/2016 | 07:08 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 1455 RIVER RD | N | 144 11021046 | 0 | 3 | 1 |
| 11/27/2016 | 03:45 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1019 RIVER RD | N | | 0 | 1 | 1 |
| 12/7/2016 | 22:10 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021064 | 0 | 6 | 1 |
| 12/7/2016 | 13:40 | 12 | 1 | N | | 0.00 | 1 | 0 | 1 | 42 | 1273 RIVER RD | Y | 144 11021054 | 0 | 2 | 1 |
| 12/20/2016 | 07:21 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 822 RIVER RD | N | 144 11021074 | 0 | 1 | 1 |
| 12/30/2016 | 11:22 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 19 | 461 RIVER RD | N | 144 11021092 | 0 | 2 | 2 |
| 1/14/2017 | 14:57 | 11 | | Y | CORNING HILL RD | 0.00 | 1 | 0 | 1 | 27 | RIVER RD | Y | 144 11021114 | 0 | 1 | 1 |
| 1/26/2017 | 16:47 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 09 | RIVER RD | N | 144 11021106 | 0 | 1 | 2 |
| 2/11/2017 | 19:48 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021075 | 0 | 2 | 1 |
| 2/13/2017 | 18:20 | 12 | 1 | N | | 0.00 | 5 | 1 | 1 | 66 | RIVER RD | Y | 144 11021054 | 0 | 4 | 1 |
| 2/13/2017 | 12:49 | 12 | 1 | N | | 0.00 | 1 | 0 | 2 | 66 | RIVER RD | Y | 144 11021054 | 0 | 1 | 1 |
| 2/14/2017 | 00:40 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021099 | 0 | 1 | 1 |
| 2/16/2017 | 10:11 | 04 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021057 | 0 | 1 | 1 |
| 2/20/2017 | 14:04 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 04 | SR 144 | N | 144 11021080 | 0 | 1 | 2 |
| 2/23/2017 | 21:00 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021100 | 0 | 1 | 2 |
| 3/23/2017 | 08:45 | 01 | | Y | I 87 EXIT RAMP | 0.00 | 1 | 0 | 1 | 07 | RIVER RD | N | 144 11021053 | 0 | 1 | 2 |
| 3/30/2017 | 17:01 | 10 | | Y | HALTER RD | 0.00 | 1 | 0 | 1 | 64 | RIVER RD | N | 144 11021107 | 0 | 2 | 1 |
| 4/10/2017 | 04:59 | 11 | 1 | N | | 0.00 | 5 | 1 | 2 | 06 | 738 RIVER RD | Y | | 0 | 1 | 1 |
| 4/25/2017 | 09:19 | 01 | 1 | N | | 1.00 | 1 | 1 | 1 | 27 | RIVER RD | N | 144 11021074 | 1 | 3 | 2 |
| 5/2/2017 | 15:38 | 01 | | Y | GLENMONT RD | 0.00 | 1 | 0 | 1 | 09 | RIVER RD | N | 144 11021000 | 0 | 2 | 2 |
| 5/18/2017 | 16:00 | 01 | | Y | ANDERS LN | 0.00 | 1 | 2 | 1 | 04 | RIVER RD | N | 144 11021102 | 0 | 1 | 2 |
| 5/27/2017 | 06:09 | 30 | 1 | N | | 0.00 | 1 | 0 | 2 | 21 | 928 RIVER RD | Y | 144 11021071 | 0 | 1 | 1 |
| 6/12/2017 | 17:39 | 01 | | Y | MAPLE AVE | 0.00 | 1 | 0 | 1 | 09 | RIVER RD | N | | 0 | 1 | 2 |
| 6/22/2017 | 12:14 | 17 | | Y | PARKER RD | 0.00 | 1 | 0 | 2 | 04 | RIVER RD | N | 144 11021062 | 0 | 1 | 1 |
| 6/29/2017 | 16:34 | 01 | | Y | RIVER RD | 0.00 | 1 | 2 | 1 | 77 | RIVER RD | N | 144 11021102 | 0 | 2 | 2 |
| 6/30/2017 | 08:08 | 01 | | Y | SR32 | 0.00 | 1 | 3 | 1 | 19 | SR144 | N | 144 11021114 | 0 | 3 | 2 |
| 7/3/2017 | 22:30 | 30 | 1 | N | | 0.00 | 4 | 0 | 2 | 06 | 175 RIVER RD | Y | 144 11021104 | 0 | 1 | 1 |
| 7/10/2017 | 08:26 | 01 | | Y | GIBSON RD | 0.00 | 1 | 2 | 1 | 04 | RIVER RD | N | 144 11021076 | 0 | 1 | 2 |
| 7/15/2017 | 18:47 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021061 | 0 | 1 | 1 |
| 7/16/2017 | 14:25 | 01 | 2 | N | | 0.00 | 1 | 0 | 1 | 13 | SR 144 | N | 144 11021054 | 0 | 1 | 2 |
| 7/18/2017 | 12:06 | 01 | | Y | SMULTZ ROAD | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021091 | 0 | 1 | 2 |
| 7/26/2017 | 12:08 | 01 | 1 | N | | 0.00 | 1 | 2 | 1 | 04 | RIVER ROAD | N | 32 11041221 | 0 | 1 | 2 |
| 8/9/2017 | 17:00 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 69 | RIVER ROAD | N | 144 11021102 | 0 | 1 | 2 |
| 8/27/2017 | 04:58 | 11 | 1 | N | | 0.00 | 5 | 1 | 2 | 08 | 1489 STATE ROUTE | Y | 144 11021044 | 0 | 1 | 1 |
| 9/18/2017 | 16:34 | 01 | | Y | READ ROAD | 0.00 | 1 | 0 | 1 | 64 | RIVER ROAD | N | 144 11021084 | 0 | 1 | 2 |
| 9/29/2017 | 18:27 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 3 | 0 | 1 | 07 | RIVER ROAD | N | 144 11021053 | 0 | 1 | 2 |
| 10/7/2017 | 19:24 | 01 | | Y | GLENMONT ROAD | 0.00 | 5 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021104 | 0 | 1 | 2 |
| 11/6/2017 | 17:22 | 07 | | Y | PARSONS ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021071 | 0 | 2 | 1 |
| 11/6/2017 | 18:10 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | Y | 144 11021055 | 0 | 2 | 1 |
| 11/11/2017 | 18:10 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 1 |
| 11/16/2017 | 13:27 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 1 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021053 | 0 | 2 | 2 |
| 11/17/2017 | 23:47 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 983 RIVER ROAD | N | 144 11021068 | 0 | 1 | 1 |
| 11/18/2017 | 06:40 | 15 | 1 | N | | 0.00 | 5 | 1 | 2 | 10 | 895 RIVER ROAD | N | 144 11021072 | 0 | 1 | 1 |
| 11/19/2017 | 18:35 | 07 | 1 | N | | 0.00 | 5 | 1 | 1 | 61 | RIVER ROAD | N | 144 11021079 | 0 | 1 | 1 |
| 11/21/2017 | 16:50 | 01 | 1 | N | | 0.00 | 3 | 0 | 1 | 19 | RIVER ROAD | N | 144 11021057 | 0 | 2 | 2 |
| 11/27/2017 | 19:45 | 07 | 1 | N | | 0.00 | 4 | 0 | 1 | 61 | 1480 RIVER ROAD | N | 144 11021044 | 0 | 1 | 1 |
| 11/29/2017 | 17:17 | 07 | | Y | WEMPLE ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021082 | 0 | 2 | 1 |
| 11/30/2017 | 12:51 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 27 | RIVER ROAD | N | 144 11021046 | 0 | 1 | 2 |
| 12/6/2017 | 23:10 | 04 | 1 | N | | 0.00 | 4 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021046 | 0 | 2 | 1 |
| 12/10/2017 | 01:13 | 15 | 1 | N | | 0.00 | 5 | 0 | 1 | 66 | 709 RIVER ROAD | N | 144 11021081 | 0 | 4 | 1 |
| 12/13/2017 | 05:40 | 07 | | Y | OLD RIVER ROAD | 0.00 | 4 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021103 | 0 | 1 | 1 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/15/2017 | 17:22 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021082 | 0 | 2 | 1 |
| 12/17/2017 | 17:30 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021057 | 0 | 1 | 1 |
| 12/22/2017 | 09:09 | 11 | 1 | N | | 0.00 | 1 | 0 | 2 | 24 | RIVER ROAD | Y | 144 11021089 | 0 | 2 | 1 |
| 12/23/2017 | 07:37 | 31 | 1 | N | | 0.00 | 2 | 1 | 1 | 19 | RIVER ROAD | N | 144 11021047 | 0 | 5 | 1 |
| 12/24/2017 | 20:42 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021067 | 0 | 2 | 1 |
| 1/1/2018 | 13:52 | 15 | 2 | N | | 0.00 | 1 | 0 | 2 | 11 | 822 SR 144 | N | 144 11021076 | 0 | 1 | 1 |
| 1/2/2018 | 07:29 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 66 | RIVER RD | N | | 0 | 2 | 2 |
| 1/3/2018 | 09:15 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | N | 144 11021102 | 0 | 2 | 2 |
| 1/3/2018 | 21:54 | 07 | | Y | HALTER ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021107 | 0 | 1 | 1 |
| 1/5/2018 | 13:04 | 30 | 1 | N | | 0.00 | 1 | 0 | 2 | 26 | 783 RIVER ROAD | Y | 144 11021077 | 0 | 1 | 1 |
| 1/8/2018 | 03:56 | 15 | 2 | N | | 0.00 | 5 | 0 | 2 | 05 | 461 RIVER ROAD | N | 144 11021094 | 0 | 1 | 1 |
| 1/11/2018 | 11:59 | 01 | | Y | OLD RIVER ROAD | 0.00 | 1 | 1 | 1 | 04 | RIVER ROAD | N | 144 11021104 | 0 | 2 | 2 |
| 1/13/2018 | 05:57 | 15 | 1 | N | | 0.00 | 5 | 0 | 1 | 66 | RIVER ROAD | N | 144 11021112 | 0 | 5 | 1 |
| 1/16/2018 | 17:16 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | 822 RIVER ROAD | N | 144 11021073 | 0 | 2 | 1 |
| 1/19/2018 | 02:15 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 1 |
| 1/23/2018 | 06:15 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021048 | 0 | 3 | 1 |
| 2/7/2018 | 11:21 | 11 | 1 | N | | 0.00 | 1 | 0 | 2 | 13 | RIVER ROAD | N | 144 11021081 | 0 | 4 | 1 |
| 2/10/2018 | 15:22 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | N | 144 11021082 | 0 | 2 | 2 |
| 2/18/2018 | 08:07 | 12 | 1 | N | | 0.00 | 1 | 1 | 1 | 66 | SR 144 | N | 144 11021099 | 0 | 2 | 1 |
| 2/22/2018 | 16:08 | 11 | 1 | N | | 0.00 | 1 | 0 | 2 | 66 | RIVER ROAD | Y | 144 11021069 | 0 | 4 | 1 |
| 3/7/2018 | 15:57 | 30 | | Y | SIMMONS RD | 0.00 | 1 | 0 | 1 | 66 | RIVER ROAD | Y | 144 11021077 | 0 | 4 | 1 |
| 3/7/2018 | 16:33 | 01 | | Y | GLENMONT ROAD | 0.00 | 1 | 0 | 1 | 66 | RIVER ROAD | N | 144 11021104 | 0 | 4 | 2 |
| 3/10/2018 | 02:50 | 15 | 1 | N | | 0.00 | 5 | 0 | 1 | 08 | RIVER ROAD | Y | 144 11021048 | 0 | 1 | 1 |
| 4/17/2018 | 15:18 | 01 | | Y | GLENMONT ROAD | 0.00 | 1 | 4 | 1 | 07 | RIVER ROAD | N | 144 11021104 | 0 | 2 | 2 |
| 4/26/2018 | 16:30 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | Y | 144 11021051 | 0 | 1 | 2 |
| 6/9/2018 | 08:01 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | SR 144 | N | 144 11021063 | 0 | 1 | 1 |
| 6/9/2018 | 14:38 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 09 | SR 144 | N | 144 11021069 | 0 | 2 | 2 |
| 6/11/2018 | 08:55 | 01 | 2 | N | | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | N | 144 11021093 | 0 | 1 | 2 |
| 6/11/2018 | 10:00 | 01 | | Y | RIVER ROAD | 0.00 | 1 | 0 | 1 | 09 | 1275 RIVER RD ROU | N | 144 11021053 | 0 | 1 | 2 |
| 6/14/2018 | 18:58 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021111 | 0 | 1 | 1 |
| 6/20/2018 | 07:40 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 18 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 2 |
| 6/20/2018 | 15:07 | 01 | | Y | EXIT 22 RAMP | 0.00 | 1 | 0 | 1 | 77 | RIVER ROAD/EXIT 2 | N | 144 11021052 | 0 | 2 | 2 |
| 7/3/2018 | 10:28 | 01 | | Y | INTERSTATE 87 NYS TH | 0.00 | 1 | 0 | 1 | 07 | SR 144 | N | 144 11021053 | 0 | 1 | 2 |
| 7/5/2018 | 05:18 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 593 RIVER ROAD | N | 144 11021086 | 0 | 1 | 1 |
| 8/23/2018 | 08:26 | 01 | | Y | BARENT WINNE RD | 0.00 | 1 | 2 | 1 | 09 | 1021 RIVER RD | N | 144 11021066 | 0 | 1 | 2 |
| 8/25/2018 | 20:16 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 1 |
| 8/27/2018 | 15:00 | 01 | | Y | BARENT WINNE RD | 0.00 | 1 | 4 | 1 | 77 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 2 |
| 9/9/2018 | 19:33 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021074 | 0 | 2 | 1 |
| 9/12/2018 | 11:52 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021063 | 0 | 2 | 2 |
| 9/14/2018 | 09:48 | 01 | | Y | GLENMONT RD | 0.00 | 1 | 0 | 1 | 69 | RIVER RD | N | 144 11021104 | 0 | 2 | 2 |
| 9/18/2018 | 12:16 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021102 | 0 | 2 | 2 |
| 9/22/2018 | 20:41 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1370 RIVER ROAD | N | 144 11021051 | 0 | 2 | 1 |
| 9/28/2018 | 00:12 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1021 RIVER RD | N | 144 11021066 | 0 | 3 | 1 |
| 10/5/2018 | 19:13 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 1 |
| 10/9/2018 | 16:24 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 1 | 0 | 1 | 18 | RIVER ROAD | N | 144 11021053 | 0 | 1 | 2 |
| 10/16/2018 | 22:08 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021047 | 0 | 1 | 1 |
| 10/16/2018 | 22:01 | 12 | 1 | N | | 0.00 | 5 | 0 | 2 | 02 | RIVER ROAD | Y | 144 11021080 | 0 | 1 | 1 |
| 10/20/2018 | 03:14 | 23 | 2 | N | | 0.00 | 5 | 0 | 2 | 02 | 380 RIVER ROAD | Y | 144 11021097 | 0 | 2 | 1 |
| 10/20/2018 | 22:48 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | 552 RIVER ROAD | N | 144 11021088 | 0 | 2 | 1 |
| 10/23/2018 | 13:10 | 01 | | Y | BASK RD (TR) | 0.00 | 1 | 0 | 1 | 77 | SR 144 | N | 144 11021088 | 0 | 2 | 2 |
| 10/26/2018 | 03:18 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | 144 11021075 | 0 | 2 | 1 |
| 10/29/2018 | 06:50 | 07 | 1 | N | | 0.00 | 2 | 0 | 1 | 61 | SR144 | N | 144 11021052 | 0 | 3 | 1 |
| 10/29/2018 | 18:22 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021049 | 0 | 1 | 1 |
| 11/1/2018 | 18:32 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021085 | 0 | 1 | 1 |
| 11/1/2018 | 18:32 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021085 | 0 | 1 | 1 |
| 11/15/2018 | 19:27 | 14 | 1 | N | | 0.00 | 5 | 0 | 2 | 66 | 1332 RIVER ROAD | Y | 144 11021051 | 0 | 4 | 1 |
| 11/24/2018 | 13:22 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | SR 144 | N | 144 11021098 | 0 | 2 | 1 |
| 11/24/2018 | 13:22 | 07 | 1 | N | | 0.00 | 1 | 1 | 1 | 61 | SR 144 | N | 144 11021099 | 0 | 2 | 1 |
| 11/26/2018 | 16:55 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021073 | 0 | 3 | 1 |
| 11/28/2018 | 16:52 | 07 | | Y | SMULTZ ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021091 | 0 | 1 | 1 |
| 11/28/2018 | 21:36 | 07 | | Y | BARENT WINNE ROAD | 0.00 | 4 | 0 | 1 | 61 | RIVER RD | N | 144 11021066 | 0 | 1 | 1 |
| 11/29/2018 | 08:40 | 01 | | Y | LYONS ROAD | 0.00 | 1 | 0 | 1 | 07 | RIVER ROAD | N | 144 11021064 | 0 | 1 | 2 |
| 12/6/2018 | 18:30 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021046 | 0 | 1 | 1 |
| 12/26/2018 | 18:47 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021058 | 0 | 1 | 1 |
| 1/8/2019 | 17:14 | 07 | 1 | N | | 0.00 | 5 | 1 | 1 | 61 | 963 RIVER RD. | N | 144 11021068 | 0 | 3 | 1 |
| 1/14/2019 | 17:26 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021068 | 0 | 2 | 1 |
| 1/21/2019 | 09:21 | 07 | | Y | DINMORE RD | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021063 | 0 | 2 | 1 |
| 1/31/2019 | 09:00 | 01 | | Y | WEMPLE ROAD | 0.00 | 1 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021081 | 0 | 1 | 2 |
| 2/5/2019 | 17:39 | 07 | | Y | READ ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021084 | 0 | 1 | 1 |
| 2/8/2019 | 10:05 | 01 | | Y | CORNING HILL ROAD | 0.00 | 1 | 1 | 1 | 07 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 2 |
| 2/11/2019 | 06:45 | 07 | 2 | N | | 0.00 | 2 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021070 | 0 | 2 | 1 |
| 2/13/2019 | 10:19 | 22 | 1 | N | | 0.00 | 1 | 1 | 2 | 66 | RIVER ROAD | N | 144 11021046 | 0 | 2 | 1 |
| 2/15/2019 | 16:34 | 01 | | Y | EXIT 22 | 0.00 | 1 | 0 | 1 | 04 | RAMP FROM EXIT 2 | N | 144 11021053 | 0 | 1 | 2 |
| 2/27/2019 | 16:49 | 34 | 1 | N | | 0.00 | 1 | 0 | 1 | 19 | RIVER ROAD | N | 144 11021087 | 0 | 4 | 1 |
| 3/9/2019 | 20:00 | 16 | 1 | N | | 0.00 | 5 | 0 | 2 | 03 | REAR PARKING LOT | Y | | 0 | 9 | 1 |
| 3/14/2019 | 07:14 | 04 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 1424 RIVER ROAD | N | 144 11021047 | 0 | 2 | 1 |
| 4/6/2019 | 13:49 | 01 | 1 | N | | 0.00 | 1 | 2 | 1 | 77 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 2 |
| 4/6/2019 | 13:49 | 01 | 1 | N | | 0.00 | 1 | 2 | 1 | 27 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 2 |
| 4/23/2019 | 12:30 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021092 | 0 | 1 | 2 |
| 5/10/2019 | 04:15 | 15 | 1 | N | | 0.00 | 4 | 0 | 1 | 64 | 495 RIVER RD | N | 144 11021089 | 0 | 2 | 1 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/13/2019 | 15:32 | 15 | 1 | N | | 0.00 | 1 | 1 | 2 | 10 | 1370 RIVER ROAD | Y | 144 11021050 | 0 | 3 | 1 |
| 5/24/2019 | 13:28 | 01 | | Y | LYONS ROAD | 0.00 | 1 | 3 | 1 | 07 | 1074 RIVER RD | N | 144 11021064 | 0 | 2 | 2 |
| 5/31/2019 | 21:14 | 01 | | Y | GLENMONT RD | 0.00 | 5 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021104 | 0 | 1 | 2 |
| 6/5/2019 | 18:17 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 1 | 2 | 1 | 07 | RIVER ROAD | N | 144 11021053 | 0 | 2 | 2 |
| 6/7/2019 | 16:03 | 23 | 1 | N | | 0.00 | 1 | 0 | 2 | 13 | RIVER ROAD | Y | 144 11021087 | 0 | 1 | 1 |
| 6/9/2019 | 15:20 | 03 | | Y | BARENT WINNE ROAD | 0.00 | 1 | 1 | 1 | 14 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 2 |
| 6/10/2019 | 18:25 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 1111 RIVER ROAD | N | 144 11021062 | 0 | 3 | 1 |
| 6/15/2019 | 19:05 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 1 |
| 6/17/2019 | 15:42 | 23 | 1 | N | | 0.00 | 1 | 1 | 2 | 19 | RIVER ROAD | Y | 144 11021053 | 0 | 1 | 1 |
| 6/17/2019 | 14:52 | 01 | 2 | N | | 0.00 | 1 | 2 | 1 | 07 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 2 |
| 6/23/2019 | 21:13 | 18 | 1 | N | | 0.00 | 4 | 0 | 1 | 04 | AREA OF 495 RIVER | Y | 144 11021090 | 0 | 1 | 1 |
| 6/24/2019 | 17:02 | 01 | | Y | NEW STATE THRUWAY | 0.00 | 1 | 2 | 1 | 07 | RIVER ROAD | N | | 0 | 2 | 2 |
| 7/2/2019 | 05:54 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 79 RIVER ROAD | N | 144 11021108 | 0 | 2 | 1 |
| 7/2/2019 | 18:22 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021075 | 0 | 1 | 1 |
| 7/5/2019 | 05:47 | 04 | 1 | N | | 0.00 | 2 | 0 | 1 | 61 | 1255 SR 144 | N | | 0 | 1 | 1 |
| 7/14/2019 | 09:00 | 12 | | Y | WEMPLE RD | 0.00 | 1 | 0 | 1 | 26 | RIVER ROAD | N | 144 11021082 | 0 | 1 | 1 |
| 7/24/2019 | 12:55 | 01 | | Y | CORNING HILL ROAD | 0.00 | 1 | 0 | 1 | 07 | RIVER ROAD | N | 32 11041221 | 0 | 1 | 2 |
| 7/31/2019 | 09:40 | 01 | | Y | WHEELER RD | 0.00 | 1 | 1 | 1 | 09 | RIVER ROAD | N | 144 11021087 | 0 | 2 | 2 |
| 8/13/2019 | 15:01 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 69 | RIVER ROAD | N | 144 11021102 | 0 | 2 | 2 |
| 9/3/2019 | 17:18 | 01 | | Y | RAMP I87 EXCHANGE | 0.00 | 1 | 3 | 1 | 07 | RIVER ROAD | N | 144 11021053 | 0 | 1 | 2 |
| 9/6/2019 | 17:32 | 07 | 2 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021096 | 0 | 1 | 1 |
| 9/11/2019 | 15:33 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 09 | RIVER ROAD | N | 144 11021092 | 0 | 1 | 2 |
| 9/15/2019 | 15:15 | 15 | 1 | N | | 0.00 | 1 | 1 | 1 | 04 | 1119 RIVER ROAD | Y | 144 11021061 | 0 | 1 | 1 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Existing AM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 2625 | 1316 |
| Peak Hour Factor (PHF) | 0.88 | 0.93 |
| Total Trucks, % | 2.70 | 2.60 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.974 | 0.975 |
| Flow Rate ($v_i$), pc/h | 3063 | 1451 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.67 | 0.66 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 27.0 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.368 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 1474.4 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 1195 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 49.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.610 | Outer Lanes Freeway Speed ($S_O$), mi/h | 52.0 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 1868 | Ramp Junction Speed (S), mi/h | 50.4 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 3319 | Average Density (D), pc/mi/ln | 29.9 |
| Level of Service (LOS) | C | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Existing PM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 1414 | 761 |
| Peak Hour Factor (PHF) | 0.93 | 0.89 |
| Total Trucks, % | 1.13 | 2.89 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.989 | 0.972 |
| Flow Rate ($v_i$), pc/h | 1537 | 880 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.36 | 0.40 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 15.4 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.283 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 760.8 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 624 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 51.0 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.594 | Outer Lanes Freeway Speed ($S_O$), mi/h | 54.1 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 913 | Ramp Junction Speed (S), mi/h | 51.8 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 1793 | Average Density (D), pc/mi/ln | 15.6 |
| Level of Service (LOS) | B | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Full Build AM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 2707 | 1316 |
| Peak Hour Factor (PHF) | 0.88 | 0.93 |
| Total Trucks, % | 5.43 | 2.60 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.948 | 0.975 |
| Flow Rate ($v_i$), pc/h | 3245 | 1451 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.70 | 0.66 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 27.9 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.380 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 1474.4 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 1266 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 49.8 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.610 | Outer Lanes Freeway Speed ($S_O$), mi/h | 51.7 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 1979 | Ramp Junction Speed (S), mi/h | 50.3 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 3430 | Average Density (D), pc/mi/ln | 31.1 |
| Level of Service (LOS) | C | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Full Build PM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 1470 | 761 |
| Peak Hour Factor (PHF) | 0.93 | 0.89 |
| Total Trucks, % | 3.95 | 2.89 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 | 0.972 |
| Flow Rate ($v_i$), pc/h | 1643 | 880 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.37 | 0.40 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 15.9 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.285 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 760.8 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 667 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 50.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.594 | Outer Lanes Freeway Speed ($S_O$), mi/h | 53.9 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 976 | Ramp Junction Speed (S), mi/h | 51.7 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 1856 | Average Density (D), pc/mi/ln | 16.3 |
| Level of Service (LOS) | B | | |

## NORTHBOUND / EASTBOUND SINGLE DESTINATION

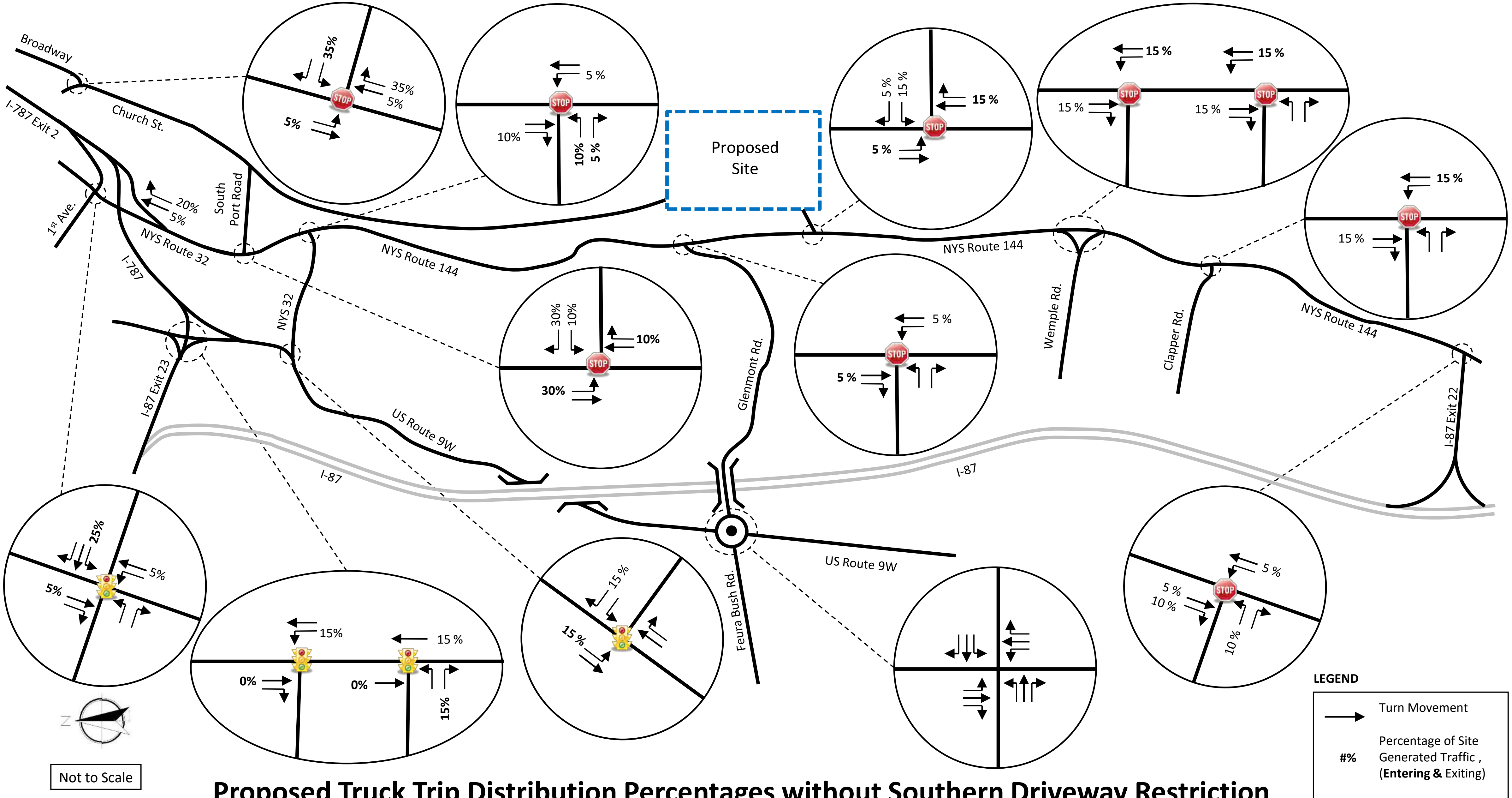
| Study Intersection | Approach and Movement | | MORNING PEAK HOUR | | | | | | EVENING PEAK HOUR | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2029 BUILD-PHASE III | | 2029 BUILD- PHASE III - MITIGATION | | 2029 BUILD- PHASE III - TRUCK SINGLE DESTINATION | | 2029 BUILD-PHASE III | | 2029 BUILD- PHASE III - MITIGATION | | 2029 BUILD- PHASE III - TRUCK SINGLE DESTINATION | |
| | | | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| Church Street at Broadway *(Un-Signalized)* | Westbound | L | 15.5 | C | | | 20.3 | C | 12.3 | B | | | 13.5 | B |
| | | R | 9.0 | A | | | 9.1 | A | 9.7 | A | | | 9.8 | A |
| | Southbound | L | 7.6 | A | | | 7.7 | A | 7.9 | A | | | 7.9 | A |
| | **OVERALL** | | **7.6** | **A** | | | **10.2** | **B** | **3.3** | **A** | | | **3.9** | **A** |

## SOUTHBOUND SINGLE DESTINATION

| Study Intersection | Approach and Movement | | MORNING PEAK HOUR | | | | | | EVENING PEAK HOUR | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2029 BUILD-PHASE III | | 2029 BUILD- PHASE III - MITIGATION | | 2029 BUILD- PHASE III - TRUCK SINGLE DESTINATION | | 2029 BUILD-PHASE III | | 2029 BUILD- PHASE III - MITIGATION | | 2029 BUILD- PHASE III - TRUCK SINGLE DESTINATION | |
| | | | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| NYS Route 32 at South Port Road (Signalized) | Westbound | L | 21.8 | C | 47.7 | D | 55.3 | E | 30.7 | C | 31.8 | C | 35.9 | D |
| | | R | | | 18.4 | B | 6.8 | A | | | 1.3 | A | 3.4 | A |
| | Northbound | R | 15.4 | B | 19.2 | B | 44.8 | D | 8.5 | A | 5.7 | A | 16.3 | B |
| | Southbound | L | 158.1 | F | 13.5 | B | 46.4 | D | 65.2 | E | 4.6 | A | 5.7 | A |
| | | T | | | 2.5 | A | 4.7 | A | | | 13.7 | B | 17.8 | B |
| | **OVERALL** | | **59.5** | **E** | **16.4** | **B** | **36.4** | **D** | **46.0** | **D** | **11.6** | **B** | **17.2** | **B** |
| NYS Route 144 at NYS Route 32 *(Un-Signalized/Signalized)* | Northbound | T-L | 8.4 | A | 14.8 | B | 18.4 | B | 12.1 | B | 5.9 | A | 7.7 | A |
| | Eastbound | L | 119.9 | F | 31.1 | C | 30.5 | C | 60.0 | F | 30.3 | C | 29.7 | C |
| | | R | 10.8 | B | 8.0 | A | 8.7 | A | 21.5 | C | 10.2 | B | 10.9 | B |
| | Southbound | T-R | | | 5.5 | A | 6.0 | A | | | 16.9 | B | 19.2 | B |
| | **OVERALL** | | **15.5** | **C** | **14.2** | **B** | **16.0** | **B** | **3.9** | **A** | **14.8** | **B** | **16.6** | **B** |
| NYS Route 144 at Glenmont Road *(Un-Signalized)* | Eastbound | L-R | 68.7 | F | | | 149.1 | F | 25.6 | D | | | 30.0 | D |
| | Northbound | T-L | 8.0 | A | | | 8.3 | A | 9.8 | A | | | 10.0 | A |
| | **OVERALL** | | **13.3** | **F** | | | **25.0** | **C** | **2.8** | **A** | | | **3.0** | **A** |
| NYS Route 144 at I-87 Exit 22 Ramp *(Un-Signalized)* | Northbound | T-L | 8.3 | A | | | 8.4 | A | 8.8 | A | | | 8.5 | A |
| | Eastbound | L | 21.1 | C | | | 565.1 | F | 13.2 | B | | | 52.9 | F |
| | **OVERALL** | | **7.5** | **A** | | | **63.7** | **F** | **6.2** | **A** | | | **10.5** | **B** |

## WESTBOUND SINGLE DESTINATION

| Study Intersection | Approach and Movement | | MORNING PEAK HOUR | | | | | | EVENING PEAK HOUR | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2029 BUILD-PHASE III | | 2029 BUILD- PHASE III - MITIGATION | | 2029 BUILD- PHASE III - TRUCK SINGLE DESTINATION | | 2029 BUILD-PHASE III | | 2029 BUILD- PHASE III - MITIGATION | | 2029 BUILD- PHASE III - TRUCK SINGLE DESTINATION | |
| | | | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| NYS Route 32 at South Port Road (Signalized) | Westbound | L | 21.8 | C | 47.7 | D | 55.3 | E | 30.7 | C | 31.8 | C | 35.9 | D |
| | | R | | | 18.4 | B | 6.8 | A | | | 1.3 | A | 3.4 | A |
| | Northbound | R | 15.4 | B | 19.2 | B | 44.8 | D | 8.5 | A | 5.7 | A | 16.3 | B |
| | Southbound | L | 158.1 | F | 13.5 | B | 46.4 | D | 65.2 | E | 4.6 | A | 5.7 | A |
| | | T | | | 2.5 | A | 4.7 | A | | | 13.7 | B | 17.8 | B |
| | **OVERALL** | | **59.5** | **E** | **16.4** | **B** | **36.4** | **D** | **46.0** | **D** | **11.6** | **B** | **17.2** | **B** |
| NYS Route 144 at NYS Route 32 *(Un-Signalized/Signalized)* | Northbound | T-L | 8.4 | A | 14.8 | B | 21.1 | C | 12.1 | B | 5.9 | A | 6.3 | A |
| | Eastbound | L | 119.9 | F | 31.1 | C | 42.4 | D | 60.0 | F | 30.3 | C | 30.3 | C |
| | | R | 10.8 | B | 8.0 | A | 6.8 | A | 21.5 | C | 10.2 | B | 10.2 | B |
| | Southbound | T-R | | | 5.5 | A | 8.3 | A | | | 16.9 | B | 20.7 | C |
| | **OVERALL** | | **15.5** | **C** | **14.2** | **B** | **20.5** | **C** | **3.9** | **A** | **14.8** | **B** | **17.7** | **B** |
| NYS Route 32 at US Route 9W *(Signalized )* | Westbound | L | 61.0 | E | 72.0 | E | 77.3 | E | 39.6 | D | | | 41.9 | D |
| | | R | 13.1 | B | 14.9 | B | 20.7 | C | 18.9 | B | | | 21.4 | C |
| | Northbound | T | 60.0 | E | 48.8 | D | 74.0 | E | 29.3 | C | | | 30.4 | C |
| | | R | 5.6 | A | 4.9 | A | 6.5 | A | 4.9 | A | | | 4.9 | A |
| | Southbound | L | 52.9 | D | 52.2 | D | 101.8 | F | 24.4 | C | | | 52.7 | D |
| | | T | 4.7 | A | 4.0 | A | 3.9 | A | 17.8 | B | | | 17.1 | B |
| | **OVERALL** | | **40.6** | **D** | **34.4** | **C** | **51.9** | **D** | **23.7** | **C** | | | **25.4** | **C** |

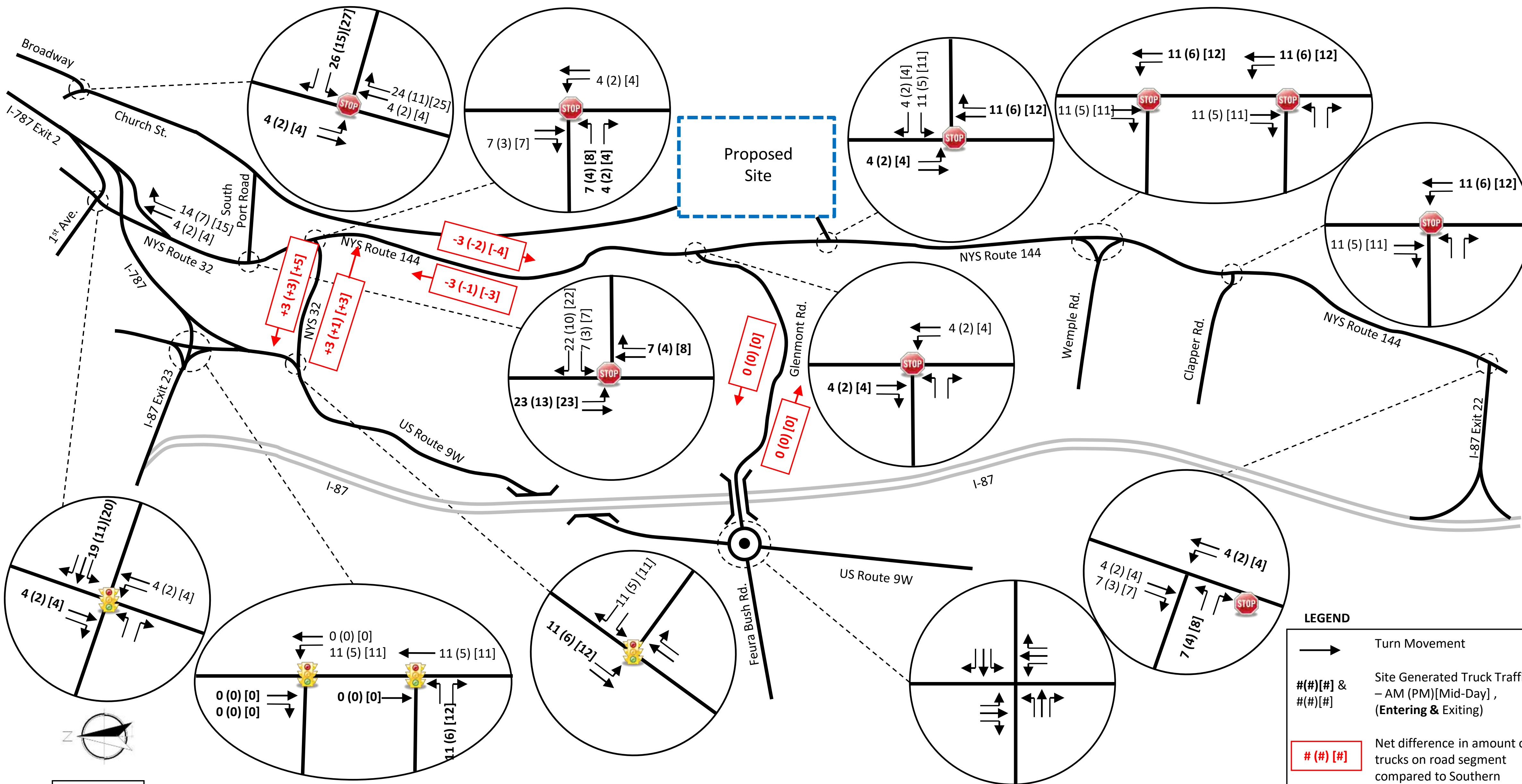



**Proposed Truck Trip Distribution Percentages without Southern Driveway Restriction**

McFarland Johnson



FIGURE 14a




**LEGEND**

| | |
|---|---|
| → | Turn Movement |
| #(#)[#] & **#(#)[#]** | Site Generated Truck Traffic – AM (PM)[Mid-Day] , (**Entering &** Exiting) |
| # (#) [#] | Net difference in amount of trucks on road segment compared to Southern Driveway with truck restriction |

# Trip Generation Truck Volumes without Southern Driveway Restriction – Phase III



**FIGURE 15a**


LEGEND

- EXISTING SIGHT DISTANCE (ORIGINAL DRIVEWAY LOCATTION)
- SIGHT DISTANCE AFTER PROPOSED VEGETATION REMOVAL (ORIGINAL DRIVEWAY LOCATION)
- EXISTING SIGHT DISTANCE (ADJUSTED DRIVEWAY LOCATION)
- SIGHT DISTANCE AFTER PROPOSED VEGETATION REMOVAL (ADJUSTED DRIVEWAY LOCATION)

0 100 200 300 FT

SCALE


McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com


PROJECT MILESTONE

TRAFFIC ANALYSIS

| NO. | DATE | DESCRIPTION |
|---|---|---|

CLIENT: ALBANY PORT DISTRICT COMMISSION

BETHLEHEM, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION

| | |
|---|---|
| DRAWN | NSO |
| DESIGNED | NSO |
| CHECKED | TCB |
| SCALE | 1"=100' |
| DATE | SEPTEMBER 2019 |
| PROJECT | 18437.00 |



DRAWING TITLE

SIGHT DISTANCE PLAN

DRAWING NUMBER

SD-01

1 OF 1

# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY, 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NO
Counts Performed via Count Board

File Name : NYS Route 144 @ Glenmont - AM
Site Code : 18437.00
Start Date : 4/8/2019


Directions Printed: Combined

| Start Time | Volume | 2 - 3 | 4 - 5 | 6 - 7 | 8 - 9 | 10 - 11 | 12 - 13 | 14 - 15 | 16 - 17 | 18 - 19 | 20 - 21 | 22 - 23 | 24 - 25 | 26 - 27 | 28 - 29 | >29 | Int. Total | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07:00 AM | 0 | 16 | 14 | 6 | 6 | 5 | 5 | 5 | 3 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 71 | 6 - 7 |
| 07:15 AM | 0 | 27 | 10 | 12 | 3 | 5 | 3 | 2 | 4 | 3 | 2 | 1 | 0 | 1 | 1 | 3 | 77 | 6 - 7 |
| 07:30 AM | 0 | 30 | 16 | 6 | 12 | 1 | 5 | 4 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 3 | 83 | 4 - 5 |
| 07:45 AM | 0 | 29 | 11 | 8 | 5 | 5 | 1 | 3 | 3 | 1 | 0 | 0 | 2 | 0 | 1 | 5 | 74 | 4 - 5 |
| Total | 0 | 102 | 51 | 32 | 26 | 16 | 14 | 14 | 12 | 6 | 4 | 3 | 5 | 4 | 4 | 12 | 305 | 4 - 5 |
| 08:00 AM | 0 | 25 | 8 | 8 | 5 | 7 | 6 | 6 | 5 | 2 | 1 | 1 | 0 | 0 | 0 | 3 | 77 | 6 - 7 |
| Grand Total | 0 | 127 | 59 | 40 | 31 | 23 | 20 | 20 | 17 | 8 | 5 | 4 | 5 | 4 | 4 | 15 | 382 | 6 - 7 |
| Total % | | 33.2 | 15.4 | 10.5 | 8.1 | 6.0 | 5.2 | 5.2 | 4.5 | 2.1 | 1.3 | 1.0 | 1.3 | 1.0 | 1.0 | 3.9 | | |

Peak Data Not Available

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Gaps | 102 | 51 | 32 | 26 | 16 | 14 | 14 | 12 | 6 | 4 | 3 | 5 | 4 | 4 | 12 |
| # of Cars per Gap | | | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| Available Gaps | 0 | 0 | 32 | 26 | 16 | 14 | 14 | 24 | 12 | 8 | 6 | 10 | 12 | 12 | 36 |

Total Gaps for Eastbound Left: 222

# McFarland Johnson Inc.

2525 NYS Route 332
Canandaigua, NY, 14424
*Traffic Count Data*

Counts by McFarland Johnson
Counted by NO
Counts Performed via Count Board

File Name : NYS Route 144 @ Glenmont - AM
Site Code : 18437.00
Start Date : 4/8/2019
Page No : 1

## Directions Printed: Southbound

| Start Time | Volume | 2 - 3 | 4 - 5 | 6 - 7 | 8 - 9 | 10 - 11 | 12 - 13 | 14 - 15 | 16 - 17 | 18 - 19 | 20 - 21 | 22 - 23 | 24 - 25 | 26 - 27 | 28 - 29 | >29 | Int. Total | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07:00 AM | 30 | 4 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 13 | 25 | >29 |
| 07:15 AM | 40 | 2 | 7 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 13 | 32 | 24 - 25 |
| 07:30 AM | 27 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 9 | 18 | >29 |
| 07:45 AM | 34 | 4 | 3 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 10 | 28 | 20 - 21 |
| Total | 131 | 11 | 11 | 2 | 4 | 3 | 1 | 5 | 4 | 4 | 3 | 2 | 5 | 2 | 1 | 45 | 103 | 24 - 25 |
| 08:00 AM | 44 | 13 | 2 | 2 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 12 | 37 | 10 - 11 |
| Grand Total | 175 | 24 | 13 | 4 | 5 | 6 | 1 | 6 | 5 | 4 | 4 | 2 | 6 | 2 | 1 | 57 | 140 | 20 - 21 |
| Total % | | 17.1 | 9.3 | 2.9 | 3.6 | 4.3 | 0.7 | 4.3 | 3.6 | 2.9 | 2.9 | 1.4 | 4.3 | 1.4 | 0.7 | 40.7 | | |

Peak Hour Analysis From 07:00 AM to 08:00 AM - Peak 1 of 1

| | |
|---|---|
| Peak Occurred: | 07:15 AM |
| Volume | 145 |
| High Int. | 08:00 AM |
| Volume | 44 |
| PHF | 0.824 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Gaps | 11 | 11 | 2 | 4 | 3 | 1 | 5 | 4 | 4 | 3 | 2 | 5 | 2 | 1 | 45 |
| # of Cars per Gap | 0 | 0 | ×1 | ×1 | ×1 | ×1 | ×1 | ×1 | ×2 | ×2 | ×2 | ×2 | ×3 | ×3 | ×3 |
| Available Gaps | 0 | 0 | 2 | 4 | 3 | 1 | 5 | 4 | 8 | 6 | 4 | 10 | 6 | 3 | 135 |

Total Gaps for Eastbound Rights: 191

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Gaps | 11 | 11 | 2 | 4 | 3 | 1 | 5 | 4 | 4 | 3 | 2 | 5 | 2 | 1 | 45 |
| # of Cars per Gap | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 |
| Available Gaps | 0 | 11 | 2 | 4 | 6 | 2 | 10 | 12 | 12 | 9 | 6 | 20 | 8 | 4 | 225 |

Total Gaps for Northbound Left: 331

| Station | FC | County Order | End Mile Point | Section Length | Road Name | Beginning Description | End Description | 2017 Estimate AADT | 2017 Estimate % Trucks | Previous Counts YEAR | AADT | YEAR | AADT | YEAR | AADT | YEAR | AADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14_0490 | 16 | 01 | 0324 | 0036 | NORTHERN DR | END 40/142 OLAP/LEVERSEE RD | OIL MILL HILL RD | | 4.3 | | | | | | | | |
| 14_0034 | 16 | 01 | 0368 | 0044 | NORTHERN DR | OIL MILL HILL RD | 125TH ST | 6826 | 3.2 | 2015 | 6890 | 2009 | 10190 | 2008 | 10521 | 2004 | 13199 |
| 14_0052 | 16 | 01 | 0387 | 0019 | 125TH ST | 125TH ST | RT 4 END RT 142 | 7321 | 4.8 | 2015 | 7389 | 2013 | 8514 | 2009 | 7378 | 2008 | 7528 |
| **Route NY143** | | | **County 001 Albany** | | | **Region 01** | | | | | | | | | | | |
| 11_0001 | 8 | 01 | 0610 | 0610 | | RT 85 FORDS CORNERS | START 32/143 OLAP | 693 | 7.1 | 2016 | 693 | 2013 | 788 | 2010 | 844 | 2006 | 994 |
| 11_0041 | 7 | 01 | 0841 | 0231 | | START 32/143 OLAP | END 32/143 OLAP | 4876 | 6 | 2017 | 4876 | 2008 | 4759 | 2005 | 4624 | 2002 | 4454 |
| 11_0040 | 8 | 01 | 1124 | 0283 | | END 32/143 OLAP | CR 111 | 998 | 9.5 | 2015 | 998 | 2010 | 830 | 2006 | 1057 | 2005 | 913 |
| 11_0036 | 8 | 01 | 1371 | 0247 | | CR 111 | CR 106 | 1513 | 8.4 | 2016 | 1513 | 2010 | 1480 | 2007 | 1596 | 2004 | 1813 |
| 11_0241 | 8 | 01 | 1744 | 0373 | | CR 106 | RT 9W W OF RAVENA | 2555 | 6.4 | 2017 | 2555 | 2010 | 2180 | 2006 | 3497 | 2004 | 3258 |
| 11_0170 | 17 | 01 | 1771 | 0027 | MAIN ST | RT 9W W OF RAVENA | MOUNTAIN RD | 4817 | 10.9 | 2016 | 4842 | 2010 | 4560 | 2007 | 5314 | 2004 | 5244 |
| 11_0038 | 17 | 01 | 1880 | 0109 | | MOUNTAIN RD | RT 144 COEYMANS END RT 143 | 3691 | 7 | 2015 | 3730 | 2009 | 4570 | 2004 | 3881 | 2001 | 3869 |
| **Route NY144** | | | **County 039 Greene** | | | **Region 01** | | | | | | | | | | | |
| 13_0051 | 7 | 01 | 0202 | 0202 | | RT 9W JCT | CR 61 NEW BALTIMORE | 870 | 7.9 | 2016 | 872 | 2013 | 850 | 2010 | 760 | 2007 | 831 |
| 13_0052 | 17 | 01 | 0335 | 0133 | | CR 61 NEW BALTIMORE | Greene/Alb Co Line | 1259 | 8.9 | 2016 | 1266 | 2013 | 1300 | 2010 | 1281 | 2006 | 1277 |
| **Route NY144** | | | **County 001 Albany** | | | **Region 01** | | | | | | | | | | | |
| 11_0039 | 17 | 02 | 0080 | 0080 | | Greene/Alb Co Line | RT 143 COEYMANS | 1386 | 4 | 2015 | 1400 | 2014 | 1299 | 2009 | 1339 | 2005 | 1491 |
| 11_0501 | 7 | 02 | 0481 | 0401 | | RT 143 COEYMANS | RT 396 SELKIRK | 4584 | 7 | 2016 | 4596 | 2015 | 4406 | 2010 | 4054 | 2007 | 4220 |
| 11_0509 | 7 | 02 | 0525 | 0044 | | RT 396 SELKIRK | ACC RT 87I | 6973 | 11.8 | 2017 | 6973 | 2008 | 7223 | 2006 | 6453 | 2001 | 7563 |
| 11_0061 | 16 | 02 | 1033 | 0508 | | ACC RT 87I | RT 910A JCT | 5177 | 12.4 | 2016 | 5201 | 2010 | 4030 | 2006 | 4415 | 2001 | 4688 |
| 11_0062 | 16 | 02 | 1136 | 0103 | | RT 910A JCT | RT 32 END RT 144 | 6239 | 12.2 | 2017 | 7807 | 2011 | 6597 | 2007 | 8515 | 2003 | 6616 |
| **Route NY145** | | | **County 039 Greene** | | | **Region 01** | | | | | | | | | | | |
| 13_0058 | 6 | 01 | 0270 | 0270 | | RT 23 | CR 31 ACRA | 4805 | 7.6 | 2016 | 4807 | 2010 | 4341 | 2007 | 4727 | 2004 | 4853 |
| 13_0403 | 6 | 01 | 0560 | 0290 | | CR 31 ACRA | CR 67A TO FREEHOLD | 4214 | 7.6 | 2016 | 4215 | 2013 | 4094 | 2010 | 4007 | 2006 | 3868 |
| 13_0031 | 6 | 01 | 1255 | 0695 | | CR 67A TO FREEHOLD | Greene/Alb Co Line | 3604 | 8.4 | 2015 | 3607 | 2013 | 3388 | 2009 | 3550 | 2007 | 3552 |
| **Route NY145** | | | **County 001 Albany** | | | **Region 01** | | | | | | | | | | | |
| 11_0116 | 6 | 02 | 0051 | 0051 | | Greene/Alb Co Line | RT 81 & RT 910G JCT | 1765 | 10.4 | 2016 | 1766 | 2010 | 1530 | 2007 | 1899 | 2004 | 2115 |
| 11_0203 | 6 | 02 | 0495 | 0444 | | RT 81 & RT 910G JCT | Alb/Schoh Co Line | 1550 | 11.4 | 2014 | 1552 | 2008 | 1985 | 2000 | 3002 | | |
| **Route NY145** | | | **County 095 Schoharie** | | | **Region 09** | | | | | | | | | | | |

| Station | FC | County Order | End Mile Point | Section Length | Road Name | Beginning Description | End Description | 2017 Estimate AADT | 2017 Estimate % Trucks | YEAR | AADT | YEAR | AADT | YEAR | AADT | YEAR | AADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Previous Counts | | | | | | | |
| 13_0012 | 6 | 03 | 0619 | 0247 | | GAME FARM RD | CR 46 | 3314 | 7.8 | 2016 | 3315 | 2013 | 3357 | 2010 | 3047 | 2006 | 3465 |
| 13_0048 | 6 | 03 | 0893 | 0274 | | CR 46 | CR 23B | 3088 | 6.6 | 2014 | 3091 | 2008 | 3297 | 2005 | 3467 | 2002 | 3506 |
| 13_0557 | 6 | 03 | 0921 | 0028 | | CR 23B | START 23/32 OLAP | 4016 | 8.7 | 2016 | 4017 | 2013 | 3977 | 2010 | 4089 | 2007 | 3734 |
| 13_0037 | 16 | 03 | 1032 | 0111 | | START 23/32 OLAP | START 23/32 OLAP | 11378 | 7.1 | 2016 | 11431 | 2013 | 10887 | 2010 | 10595 | 2007 | 10666 |
| 13_0402 | 7 | 03 | 1478 | 0446 | | START 23/32 OLAP | CR 67 FREEHOLD | 3389 | 6.5 | 2016 | 3398 | 2010 | 2994 | 2007 | 3451 | 2003 | 4054 |
| 13_0028 | 7 | 03 | 1904 | 0426 | | CR 67 FREEHOLD | RT 81 GREENVILLE | 3119 | 5.9 | 2015 | 3135 | 2010 | 2748 | 2006 | 3162 | 2003 | 3615 |
| 13_0049 | 7 | 03 | 2054 | 0150 | | RT 81 GREENVILLE | Greene/Alb Co Line | 5053 | 4.8 | 2015 | 5079 | 2013 | 7551 | 2009 | 4836 | 2005 | 7796 |

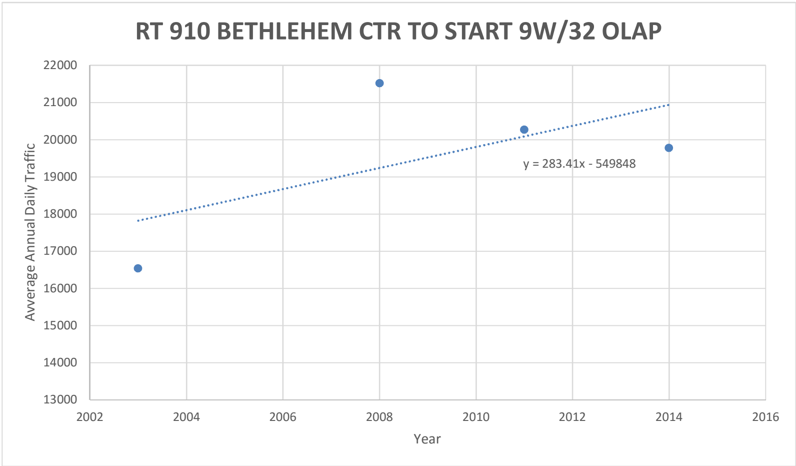
**Route** NY32 **County** 001 Albany **Region** 01

| Station | FC | County Order | End Mile Point | Section Length | Road Name | Beginning Description | End Description | 2017 Estimate AADT | 2017 Estimate % Trucks | YEAR | AADT | YEAR | AADT | YEAR | AADT | YEAR | AADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11_0034 | 7 | 04 | 0046 | 0046 | | Greene/Alb Co Line | CR 405 | 4224 | 5.5 | 2016 | 4235 | 2010 | 4647 | 2007 | 5206 | 2004 | 4563 |
| 11_0042 | 7 | 04 | 0465 | 0419 | | CR 405 | START 32/143 OLAP DORMANS | 3801 | 7.7 | 2016 | 3811 | 2010 | 3144 | 2006 | 3783 | 2005 | 3558 |
| 11_0041 | 7 | 04 | 0696 | 0231 | | START 32/143 OLAP DORMANS | END 32/143 OLAP | 4876 | 6 | 2017 | 4876 | 2008 | 4759 | 2005 | 4624 | 2002 | 4454 |
| 11_0483 | 7 | 04 | 1041 | 0345 | | END 32/143 OLAP | CR 301 MEADS COR | 5070 | 4.4 | 2016 | 5083 | 2014 | 5098 | 2010 | 4742 | 2007 | 4696 |
| 11_0510 | 7 | 04 | 1415 | 0374 | | CR 301 MEADS COR | CR 308 FEURA BUSH | 5280 | 4.7 | 2016 | 5294 | 2014 | 5333 | 2010 | 3896 | 2007 | 4347 |
| 11_0058 | 7 | 04 | 1493 | 0078 | | CR 308 FEURA BUSH | SPEEDER RD | 7892 | 9.4 | 2016 | 7913 | 2010 | 6734 | 2006 | 7555 | 2005 | 8549 |
| 11_0059 | 16 | 04 | 1682 | 0189 | | SPEEDER RD | RT 910A FEURA BUSH RD | 8089 | 10.3 | 2016 | 8127 | 2010 | 7444 | 2006 | 7518 | 2004 | 8726 |
| 11_0060 | 16 | 04 | 1731 | 0049 | ELM AVE EXT | RT 910A FEURA BUSH RD | ELM AVE | 6305 | 9.3 | 2014 | 6394 | 2008 | 5484 | 2004 | 6717 | | |
| 11_0102 | 16 | 04 | 1762 | 0031 | ELM AVE | ELM AVE | DELMAR BYPASS | 9927 | 7.6 | 2015 | 10020 | 2010 | 9215 | 2006 | 10944 | 2003 | 11824 |
| 11_0103 | 12 | 04 | 1885 | 0123 | | DELMAR BYPASS | RT 335 | 10793 | 6.5 | 2017 | 10793 | 2006 | 11051 | 2005 | 10945 | 2004 | 10984 |
| 11_0104 | 12 | 04 | 2094 | 0209 | | RT 335 | START 9W/32 OLAP | 10732 | 6.7 | 2014 | 11009 | 2011 | 12816 | 2007 | 11923 | 2004 | 12760 |
| 11_0063 | 14 | 04 | 2127 | 0033 | | START 9W/32 OLAP | END 9W/32 OLAP | 29304 | 6.4 | 2017 | 29304 | 2009 | 30128 | 2005 | 31753 | 2002 | 27573 |
| 11_0106 | 16 | 04 | 2192 | 0065 | | END 9W/32 OLAP | RT 144 JCT | 3762 | 16.3 | 2017 | 3762 | 2015 | 3405 | 2013 | 3539 | 2006 | 3725 |
| 11_0107 | 16 | 04 | 2200 | 0008 | | RT 144 JCT | BEG NORMANS KILL BRIDGE/CITY | 9538 | 14.2 | 2016 | 9582 | 2010 | 9167 | 2006 | 9107 | 2002 | 8304 |
| 11_0005 | 16 | 04 | 2291 | 0091 | PEARL ST S | BEG NORMANS KILL BRIDGE/CITY | ACC TO I787 | 11738 | 14.1 | 2017 | 11738 | 2016 | 9280 | 2010 | 10956 | 2006 | 10724 |
| 11_0020 | 17 | 04 | 2344 | 0053 | | ACC TO I787 | JCT CHURCH ST | 3286 | 17.2 | 2017 | 3286 | 2009 | 4295 | 2002 | 3775 | | |
| 11_0605 | 17 | 04 | 2349 | 0005 | GREEN ST | JCT CHURCH ST | ACC TO I-787 SB | 2800 | 4.6 | 2017 | 2800 | | | | | | |
| 11_0009 | 16 | 04 | 2414 | 0065 | PEARL ST S | ACC TO I-787 SB | START RT 20 OLAP | 2204 | 4.8 | 2016 | 2214 | 2010 | 2565 | 2008 | 2737 | 2005 | 5226 |
| 11_0140 | 14 | 04 | 2422 | 0008 | PEARL ST S | START RT 20 OLAP | END 20/32 OLAP | 9839 | 5.4 | 2015 | 9888 | 2009 | 13628 | 2008 | 11249 | | |
| 11_0010 | 14 | 04 | 2444 | 0022 | PEARL ST S | END 20/32 OLAP | RT 5 STATE ST | 8962 | 5.4 | 2011 | 9096 | 2008 | 9989 | 2005 | 11360 | | |
| 11_0072 | 16 | 04 | 2478 | 0034 | PEARL ST N | RT 5 STATE ST | RT 9 CLINTON AVE | 8198 | 4.3 | 2015 | 8275 | 2009 | 10589 | 2005 | 12807 | 2002 | 8965 |
| 11_0016 | 16 | 04 | 2569 | 0091 | PEARL ST N | RT 9 CLINTON AVE | LOUDONVILLE RD | 3833 | 4.3 | 2014 | 3887 | 2011 | 3588 | 2006 | 3900 | 2005 | 4933 |
| 11_0088 | 16 | 04 | 2669 | 0100 | PEARL ST N | LOUDONVILLE RD | RT 910C JCT BROADWAY MENANDS | 2548 | 7.2 | 2015 | 2572 | 2009 | 3316 | 2004 | 2159 | 2001 | 1963 |

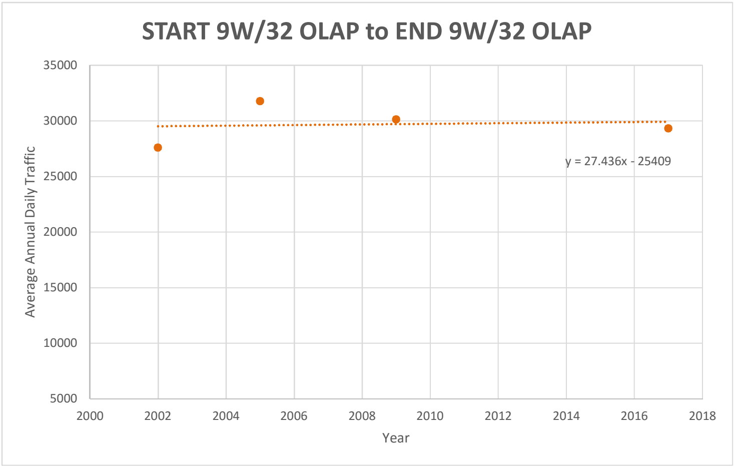
# REGRESSION ANALYSIS - US 9W

| RT 910A BETHLEHEM CTR to START 9W/32 OLAP | |
|---|---|
| Year | Volume |
| 2003 | 16530 |
| 2008 | 21517 |
| 2011 | 20261 |
| 2014 | 19776 |

| START 9W/32 OLAP to END 9W/32 OLAP | |
|---|---|
| Year | Volume |
| 2002 | 27573 |
| 2005 | 31753 |
| 2009 | 30128 |
| 2017 | 29304 |




Calculated 2019 AADT = 22,357
NYSDOT 2003 AADT = 16,530
% Growth per Year = 1.875

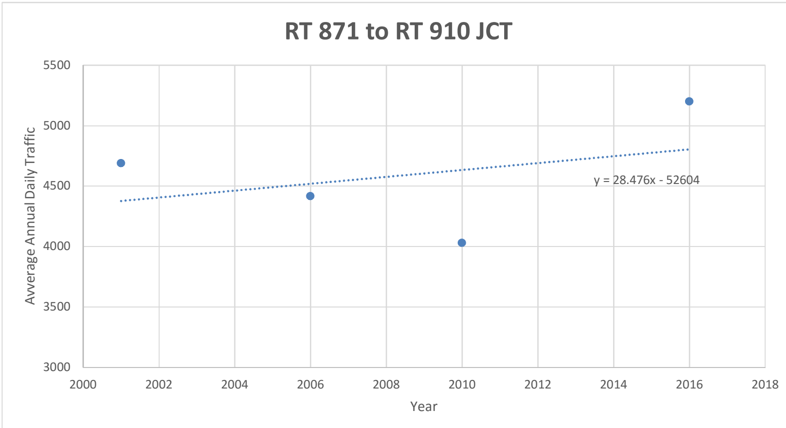



Calculated 2019 AADT = 29,984
NYSDOT 2002 AADT = 27,573
% Growth per Year = 0.49

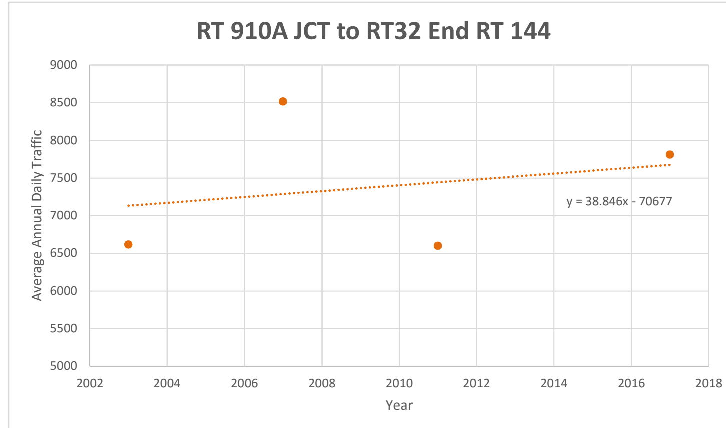
# REGRESSION ANALYSIS - NYS 144

| RT 871 to RT 910 JCT | |
|---|---|
| Year | Volume |
| 2001 | 4688 |
| 2006 | 4415 |
| 2010 | 4030 |
| 2016 | 5201 |

| RT 910A JCT to RT32 END RT 144 | |
|---|---|
| Year | Volume |
| 2003 | 6616 |
| 2007 | 8515 |
| 2011 | 6597 |
| 2017 | 7807 |




Calculated 2019 AADT = 4,889
NYSDOT 2001 AADT = 4,688
% Growth per Year = 0.23

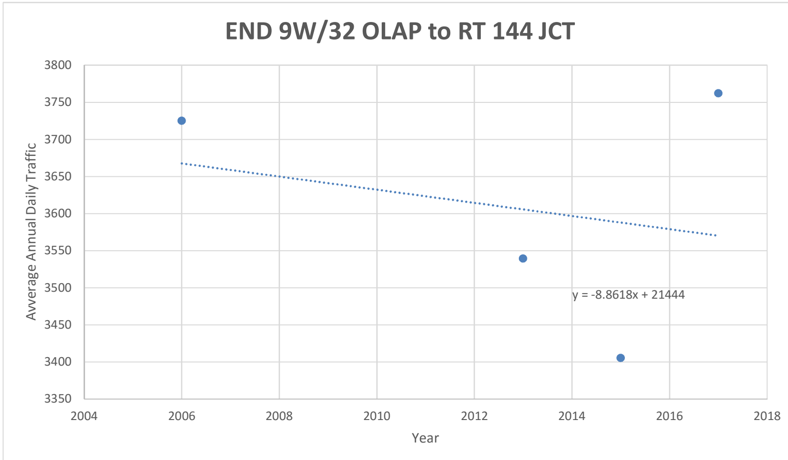



Calculated 2019 AADT = 7,753
NYSDOT 2003 AADT = 6,616
% Growth per Year = 0.99

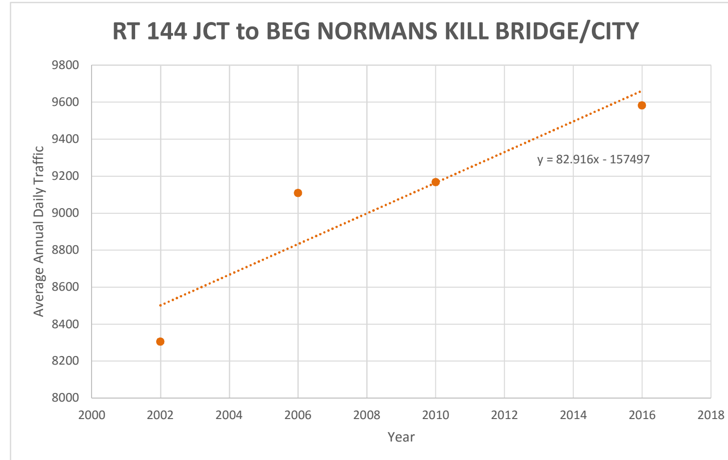
# REGRESSION ANALYSIS - NY 32

| END 9W/32 OLAP to RT 144 JCT | |
|---|---|
| Year | Volume |
| 2006 | 3725 |
| 2013 | 3539 |
| 2015 | 3405 |
| 2017 | 3762 |

| RT 144 JCT to BEG NORMANS KILL BRIDGE/CITY | |
|---|---|
| Year | Volume |
| 2002 | 8304 |
| 2006 | 9107 |
| 2010 | 9167 |
| 2016 | 9582 |




Calculated 2019 AADT = 3,552
NYSDOT 2006 AADT = 3,725
% Growth per Year = -0.37




Calculated 2019 AADT = 9,910
NYSDOT 2002 AADT = 8,304
% Growth per Year = 0.96

**TRIP GENERATION CALCULATIONS**

| Type of Land Use | ITE Code | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Existing Port of Albany (2009 Volumes) | NA | 925 | 1000 SF | Generation Rate = | | 0.57 | Generation Rate = | | 0.47 |
| | | | | 59% | 41% | 100% | 33% | 67% | 100% |
| | | | | 310 | 215 | 525 | 143 | 293 | 436 |
| | | | **Total Projected Trips** | **310** | **215** | **525** | **143** | **293** | **436** |

| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Industrial Park | 130 | 1,130 | 1000 SF | Generation Rate = | | 0.41 | Generation Rate = | | 0.4 |
| | | | | 87% | 13% | 100% | 21% | 79% | 100% |
| | | | | 403 | 60 | 463 | 95 | 358 | 452 |
| | | | **Total Projected Trips** | **403** | **60** | **463** | **95** | **358** | **452** |
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Manufacturing | 140 | 1,130 | 1000 SF | Generation Rate = | | 0.81 | Generation Rate = | | 0.79 |
| | | | | 72% | 28% | 100% | 43% | 57% | 100% |
| | | | | 659 | 256 | 915 | 384 | 509 | 893 |
| | | | **Total Projected Trips** | **659** | **256** | **915** | **384** | **509** | **893** |
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| General Light Industrial | 110 | 1,130 | 1000 SF | Generation Rate = | | 0.92 | Generation Rate = | | 0.83 |
| | | | | 87% | 13% | 100% | 18% | 82% | 100% |
| | | | | 904 | 135 | 1040 | 169 | 769 | 938 |
| | | | **Total Projected Trips** | **904** | **135** | **1040** | **169** | **769** | **938** |

* Trip generation rates is based on ITE Trip Generation Manual 10th Edition for Trips Generated during the existing morning and evening peak hours at the study area intersections.

| Type of Land Use | ITE Code** | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Previous Study: | | | | | | | | | |
| Gen. Heavy Industrial | 120 | 277 | 1000 SF | 124 | 17 | 141 | 23 | 165 | 188 |
| Industrial Park | 130 | 277 | 1000 SF | 185 | 41 | 226 | 54 | 201 | 255 |
| Warehouse | 150 | 277 | 1000 SF | 115 | 30 | 145 | 29 | 86 | 115 |
| | | | **Total Projected Trips** | **424** | **88** | **512** | **106** | **452** | **558** |

** Trip generation rates is based on ITE Trip Generation Manual 8th Edition for Trips Generated during the existing morning and evening peak hours at the study area intersections.

**TRIP GENERATION CALCULATION TABLE**

| Type of Land Use | ITE Code | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Existing Port of Albany | NA | 925 | 1000 SF | Generation Rate = | | 0.13 | Generation Rate = | | 0.07 |
| | | | | 51% | 49% | 100% | 56% | 44% | 100% |
| | | | | 61 | 59 | 120 | 34 | 27 | 61 |
| **Total Projected Trips** | | | | **61** | **59** | **120** | **34** | **27** | **61** |

| Type of Land Use | ITE Code | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | | Mid-Day Peak | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| Based on Existing Port of Albany Truck Traffic Generation | NA | 1,130 | 1000 SF | Generation Rate = | | 0.13 | Generation Rate = | | 0.07 | Generation Rate = | | 0.13 |
| | | | | 51% | 49% | 100% | 56% | 44% | 100% | 52% | 48% | 100% |
| | | | | 75 | 72 | 147 | 42 | 33 | 75 | 78 | 73 | 151 |
| **Total Projected Trips** | | | | **75** | **72** | **147** | **42** | **33** | **75** | **78** | **73** | **151** |

# APPENDIX C

# SYNCHRO MODEL CAPACITY ANALYSIS RESULTS

- 2019 Existing Conditions
  - AM Peak
  - PM Peak

- 2029 Background Conditions
  - AM Peak
  - PM Peak

- 2029 Build-Phase I Conditions
  - AM Peak
  - PM Peak

- 2029 Build-Phase II Conditions
  - AM Peak
  - PM Peak

- 2029 Build-Phase III Conditions
  - AM Peak
  - PM Peak

- 2029 Build-Phase III-Mitigation Conditions
  - AM Peak
  - PM Peak

- 2029 Build-Phase III-Truck Sensitivity North/East
  - AM Peak
  - PM Peak

- 2029 Build-Phase III-Truck Sensitivity South
  - AM Peak
  - PM Peak

- 2029 Build-Phase III-Truck Sensitivity West
  - AM Peak
  - PM Peak

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 29 | 358 | 51 | 86 | 7 | 58 | 0 | 0 | 94 | 4 |
| Future Volume (vph) | 3 | 0 | 29 | 358 | 51 | 86 | 7 | 58 | 0 | 0 | 94 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.88 | | | | | | | | | | |
| Frt | | 0.879 | | | 0.906 | | | | | | 0.995 | |
| Flt Protected | | 0.995 | | 0.950 | | | | 0.994 | | | | |
| Satd. Flow (prot) | 0 | 1383 | 0 | 1444 | 1425 | 0 | 0 | 1644 | 0 | 0 | 1598 | 0 |
| Flt Permitted | | 0.995 | | 0.950 | | | | 0.960 | | | | |
| Satd. Flow (perm) | 0 | 1370 | 0 | 1444 | 1425 | 0 | 0 | 1588 | 0 | 0 | 1598 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 97 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 25% | 0% | 33% | 14% | 15% | 0% | 0% | 18% | 25% |
| Adj. Flow (vph) | 4 | 0 | 35 | 402 | 57 | 97 | 8 | 64 | 0 | 0 | 121 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 39 | 0 | 402 | 154 | 0 | 0 | 72 | 0 | 0 | 126 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 5.7 | | 75.0 | 75.0 | | | 13.5 | | | 13.5 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.05 | | 0.71 | 0.71 | | | 0.13 | | | 0.13 | |
| v/c Ratio | | 0.27 | | 0.39 | 0.15 | | | 0.35 | | | 0.61 | |
| Control Delay | | 7.6 | | 8.9 | 3.3 | | | 45.2 | | | 54.5 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 7.6 | | 8.9 | 3.3 | | | 45.2 | | | 54.5 | |
| LOS | | A | | A | A | | | D | | | D | |
| Approach Delay | | 7.6 | | | 7.4 | | | 45.2 | | | 54.5 | |
| Approach LOS | | A | | | A | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 108 | 12 | | | 45 | | | 80 | |
| Queue Length 95th (ft) | | 5 | | 200 | 39 | | | 85 | | | 114 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 185 | | 1032 | 1046 | | | 393 | | | 397 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.21 | | 0.39 | 0.15 | | | 0.18 | | | 0.32 | |

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

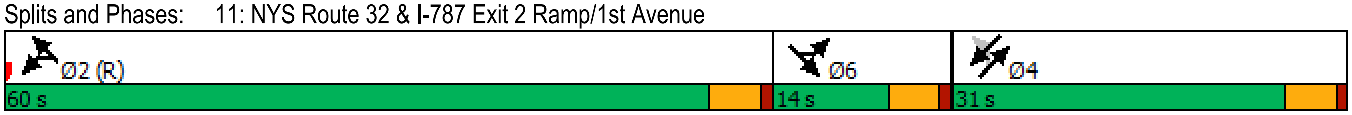
Maximum v/c Ratio: 0.61

Intersection Signal Delay: 18.3 — Intersection LOS: B

Intersection Capacity Utilization 43.7% — ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



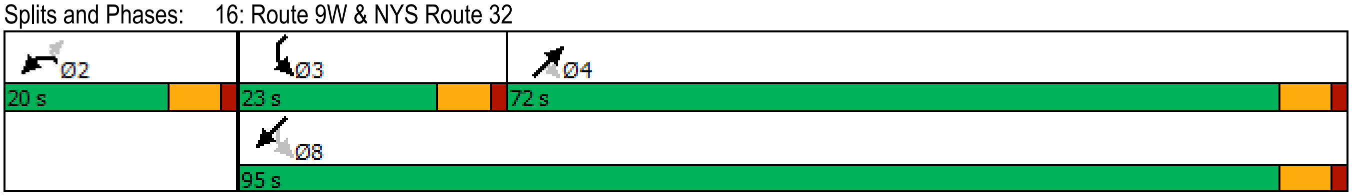
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 89 | 146 | 1939 | 157 | 96 | 782 |
| Future Volume (vph) | 89 | 146 | 1939 | 157 | 96 | 782 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1442 | 3505 | 1482 | 1388 | 3406 |
| Flt Permitted | 0.950 | | | | 0.055 | |
| Satd. Flow (perm) | 1530 | 1442 | 3505 | 1482 | 80 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 168 | | 102 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.87 | 0.87 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 12% | 3% | 9% | 30% | 6% |
| Adj. Flow (vph) | 102 | 168 | 2085 | 169 | 113 | 920 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 102 | 168 | 2085 | 169 | 113 | 920 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 20.0 | 20.0 | 72.0 | 72.0 | 23.0 | 95.0 |
| Total Split (%) | 17.4% | 17.4% | 62.6% | 62.6% | 20.0% | 82.6% |
| Maximum Green (s) | 14.0 | 14.0 | 66.0 | 66.0 | 17.0 | 89.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 14.0 | 14.0 | 66.1 | 66.1 | 82.3 | 82.3 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.61 | 0.61 | 0.76 | 0.76 |
| v/c Ratio | 0.52 | 0.51 | 0.97 | 0.18 | 0.62 | 0.36 |
| Control Delay | 55.1 | 12.7 | 35.8 | 4.7 | 34.3 | 4.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.1 | 12.7 | 35.8 | 4.7 | 34.3 | 4.7 |
| LOS | E | B | D | A | C | A |
| Approach Delay | 28.7 | | 33.5 | | | 7.9 |
| Approach LOS | C | | C | | | A |
| Queue Length 50th (ft) | 67 | 0 | 670 | 17 | 35 | 92 |
| Queue Length 95th (ft) | 125 | 58 | #1002 | 52 | 85 | 106 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 198 | 332 | 2139 | 944 | 266 | 2803 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.51 | 0.97 | 0.18 | 0.42 | 0.33 |

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 108.3
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 78.8% ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



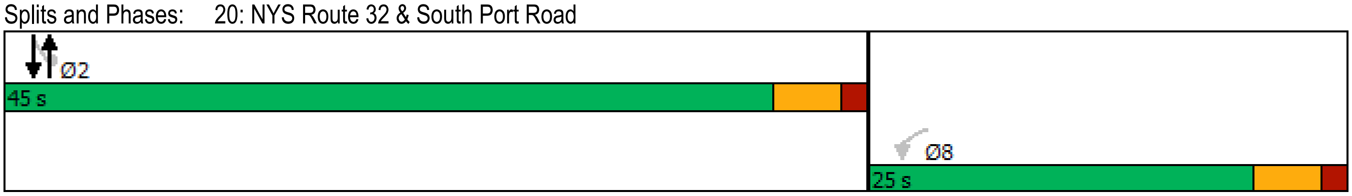
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 16 | 29 | 681 | 37 | 35 | 228 |
| Future Volume (vph) | 16 | 29 | 681 | 37 | 35 | 228 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.912 | | 0.993 | | | |
| Flt Protected | 0.983 | | | | | 0.993 |
| Satd. Flow (prot) | 1035 | 0 | 1769 | 0 | 0 | 1507 |
| Flt Permitted | 0.983 | | | | | 0.861 |
| Satd. Flow (perm) | 1035 | 0 | 1769 | 0 | 0 | 1307 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 39 | | 7 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.75 | 0.75 | 0.87 | 0.87 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 60% | 67% | 6% | 18% | 52% | 21% |
| Adj. Flow (vph) | 21 | 39 | 783 | 43 | 42 | 271 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 60 | 0 | 826 | 0 | 0 | 313 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 7.6 | | 55.9 | | | 55.9 |
| Actuated g/C Ratio | 0.11 | | 0.84 | | | 0.84 |
| v/c Ratio | 0.39 | | 0.56 | | | 0.29 |
| Control Delay | 22.1 | | 5.7 | | | 3.7 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 22.1 | | 5.7 | | | 3.7 |
| LOS | C | | A | | | A |
| Approach Delay | 22.1 | | 5.7 | | | 3.7 |
| Approach LOS | C | | A | | | A |
| Queue Length 50th (ft) | 9 | | 116 | | | 31 |
| Queue Length 95th (ft) | 29 | | 256 | | | 71 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 340 | | 1484 | | | 1096 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.18 | | 0.56 | | | 0.29 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.7
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 6.0 Intersection LOS: A
Intersection Capacity Utilization 54.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 5.6 |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 56 | 172 | 303 | 316 | 53 | 122 |
| Future Vol, veh/h | 56 | 172 | 303 | 316 | 53 | 122 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 91 | 91 | 88 | 88 |
| Heavy Vehicles, % | 9 | 20 | 10 | 10 | 18 | 17 |
| Mvmt Flow | 62 | 191 | 333 | 347 | 60 | 139 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1143 | 130 | 60 | 0 | - | 0 |
| Stage 1 | 130 | - | - | - | - | - |
| Stage 2 | 1013 | - | - | - | - | - |
| Critical Hdwy | 6.49 | 6.4 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.49 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.49 | - | - | - | - | - |
| Follow-up Hdwy | 3.581 | 3.48 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 214 | 874 | 1494 | - | - | - |
| Stage 1 | 879 | - | - | - | - | - |
| Stage 2 | 340 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 155 | 874 | 1494 | - | - | - |
| Mov Cap-2 Maneuver | 155 | - | - | - | - | - |
| Stage 1 | 636 | - | - | - | - | - |
| Stage 2 | 340 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 14.5 | 4 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1494 | - | 631 | - | - |
| HCM Lane V/C Ratio | 0.223 | - | 0.401 | - | - |
| HCM Control Delay (s) | 8.1 | 0 | 14.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 1.9 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.7 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 514 | 166 | 59 | 162 | 16 |
| Future Vol, veh/h | 18 | 514 | 166 | 59 | 162 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 84 | 84 | 81 | 81 | 83 | 83 |
| Heavy Vehicles, % | 3 | 0 | 22 | 10 | 12 | 11 |
| Mvmt Flow | 21 | 612 | 205 | 73 | 195 | 19 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 278 | 0 | - | 0 | 896 | 242 |
| Stage 1 | - | - | - | - | 242 | - |
| Stage 2 | - | - | - | - | 654 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.52 | 6.31 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.52 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.608 | 3.399 |
| Pot Cap-1 Maneuver | 1279 | - | - | - | 298 | 775 |
| Stage 1 | - | - | - | - | 775 | - |
| Stage 2 | - | - | - | - | 499 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1279 | - | - | - | 291 | 775 |
| Mov Cap-2 Maneuver | - | - | - | - | 291 | - |
| Stage 1 | - | - | - | - | 756 | - |
| Stage 2 | - | - | - | - | 499 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 39.6 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 308 | 1279 | - | - | - |
| HCM Lane V/C Ratio | 0.696 | 0.017 | - | - | - |
| HCM Control Delay (s) | 39.6 | 7.9 | 0 | - | - |
| HCM Lane LOS | E | A | A | - | - |
| HCM 95th %tile Q(veh) | 4.9 | 0.1 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 97 | 46 | 53 | 621 | 195 | 49 |
| Future Vol, veh/h | 97 | 46 | 53 | 621 | 195 | 49 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 86 | 86 | 90 | 90 |
| Heavy Vehicles, % | 13 | 28 | 20 | 9 | 23 | 28 |
| Mvmt Flow | 111 | 53 | 62 | 722 | 217 | 54 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1090 | 244 | 271 | 0 | - | 0 |
| Stage 1 | 244 | - | - | - | - | - |
| Stage 2 | 846 | - | - | - | - | - |
| Critical Hdwy | 6.53 | 6.48 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.53 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.53 | - | - | - | - | - |
| Follow-up Hdwy | 3.617 | 3.552 | 2.38 | - | - | - |
| Pot Cap-1 Maneuver | 227 | 735 | 1195 | - | - | - |
| Stage 1 | 771 | - | - | - | - | - |
| Stage 2 | 403 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 207 | 735 | 1195 | - | - | - |
| Mov Cap-2 Maneuver | 207 | - | - | - | - | - |
| Stage 1 | 704 | - | - | - | - | - |
| Stage 2 | 403 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 31.1 | 0.6 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1195 | - | 207 | 735 | - | - |
| HCM Lane V/C Ratio | 0.052 | - | 0.539 | 0.072 | - | - |
| HCM Control Delay (s) | 8.2 | 0 | 41 | 10.3 | - | - |
| HCM Lane LOS | A | A | E | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 2.8 | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.4 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 106 | 6 | 40 | 38 | 41 | 50 |
| Future Vol, veh/h | 106 | 6 | 40 | 38 | 41 | 50 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 65 | 65 | 84 | 84 | 62 | 62 |
| Heavy Vehicles, % | 25 | 17 | 42 | 42 | 0 | 25 |
| Mvmt Flow | 163 | 9 | 48 | 45 | 66 | 81 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 284 | 71 | 0 | 0 | 93 | 0 |
| Stage 1 | 71 | - | - | - | - | - |
| Stage 2 | 213 | - | - | - | - | - |
| Critical Hdwy | 6.65 | 6.37 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.65 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.65 | - | - | - | - | - |
| Follow-up Hdwy | 3.725 | 3.453 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 660 | 951 | - | - | 1514 | - |
| Stage 1 | 897 | - | - | - | - | - |
| Stage 2 | 771 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 631 | 951 | - | - | 1514 | - |
| Mov Cap-2 Maneuver | 631 | - | - | - | - | - |
| Stage 1 | 897 | - | - | - | - | - |
| Stage 2 | 737 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.5 | 0 | 3.4 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 631 | 951 | 1514 | - |
| HCM Lane V/C Ratio | - | - | 0.258 | 0.01 | 0.044 | - |
| HCM Control Delay (s) | - | - | 12.7 | 8.8 | 7.5 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 1 | 0 | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 14 | 3 | 449 | 150 | 1 |
| Future Vol, veh/h | 5 | 14 | 3 | 449 | 150 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 42 | 81 | 75 | 72 | 93 | 25 |
| Heavy Vehicles, % | 0 | 8 | 0 | 8 | 20 | 0 |
| Mvmt Flow | 12 | 17 | 4 | 624 | 161 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 795 | 163 | 165 | 0 | - | 0 |
| Stage 1 | 163 | - | - | - | - | - |
| Stage 2 | 632 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.28 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.372 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 359 | 866 | 1426 | - | - | - |
| Stage 1 | 871 | - | - | - | - | - |
| Stage 2 | 534 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 358 | 866 | 1426 | - | - | - |
| Mov Cap-2 Maneuver | 358 | - | - | - | - | - |
| Stage 1 | 868 | - | - | - | - | - |
| Stage 2 | 534 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.9 | 0 | 0 |
| HCM LOS | B | | |

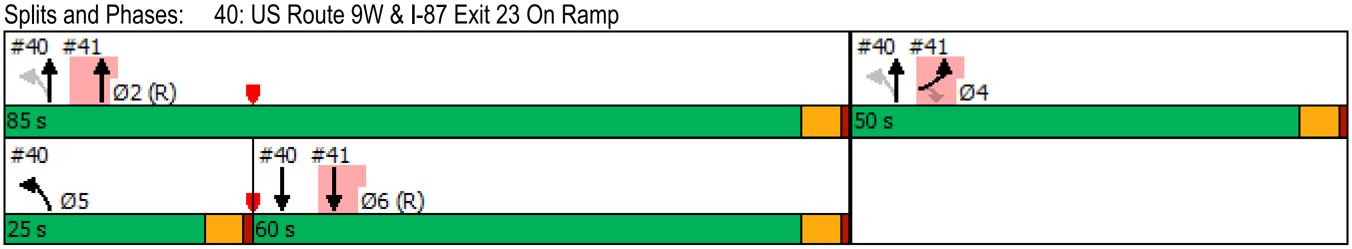
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1426 | - | 549 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.053 | - | - |
| HCM Control Delay (s) | 7.5 | 0 | 11.9 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 324 | 766 | 616 | 204 | | |
| Future Volume (vph) | 0 | 0 | 324 | 766 | 616 | 204 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.963 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1656 | 1863 | 3319 | 0 | | |
| Flt Permitted | | | 0.262 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 457 | 1863 | 3319 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 40 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 392 | | | 267 | 305 | | | |
| Travel Time (s) | 8.9 | | | 6.1 | 6.9 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.89 | 0.89 | 0.93 | 0.93 | | |
| Heavy Vehicles (%) | 2% | 2% | 9% | 2% | 6% | 1% | | |
| Adj. Flow (vph) | 0 | 0 | 364 | 861 | 662 | 219 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 364 | 861 | 881 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 1.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 22.5 | | 22.5 | 50.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 68.0 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.50 | | | |
| v/c Ratio | | | 0.73 | 0.46 | 0.52 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Control Delay | | | 12.0 | 1.3 | 23.1 | | | |
| Queue Delay | | | 0.1 | 0.0 | 0.0 | | | |
| Total Delay | | | 12.1 | 1.3 | 23.1 | | | |
| LOS | | | B | A | C | | | |
| Approach Delay | | | | 4.5 | 23.1 | | | |
| Approach LOS | | | | A | C | | | |
| Queue Length 50th (ft) | | | 45 | 38 | 247 | | | |
| Queue Length 95th (ft) | | | m42 | m23 | 345 | | | |
| Internal Link Dist (ft) | 312 | | | 187 | 225 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 617 | 1863 | 1691 | | | |
| Starvation Cap Reductn | | | 17 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 0 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 0.61 | 0.46 | 0.52 | | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.95 | |
| Intersection Signal Delay: 12.3 | Intersection LOS: B |
| Intersection Capacity Utilization 79.4% | ICU Level of Service D |
| Analysis Period (min) 15 | |
| m Volume for 95th percentile queue is metered by upstream signal. | |

Splits and Phases: 40: US Route 9W & I-87 Exit 23 On Ramp

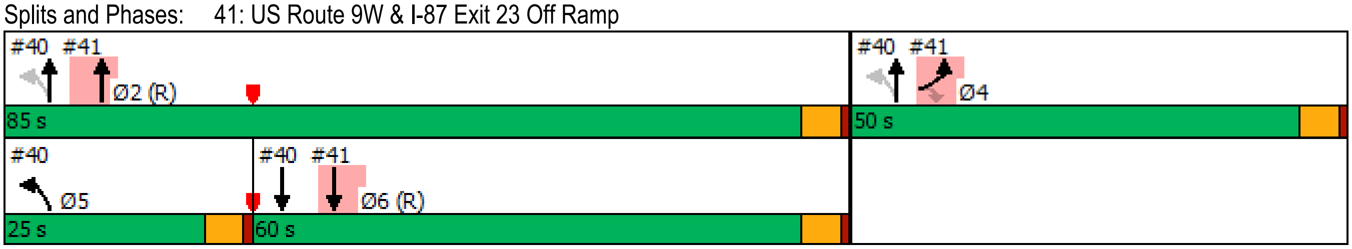


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 476 | 284 | 0 | 614 | 616 | 0 | |
| Future Volume (vph) | 476 | 284 | 0 | 614 | 616 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 263 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 385 | | | 388 | 267 | | |
| Travel Time (s) | 8.8 | | | 8.8 | 6.1 | | |
| Peak Hour Factor | 0.83 | 0.83 | 0.86 | 0.86 | 0.98 | 0.98 | |
| Heavy Vehicles (%) | 0% | 3% | 0% | 2% | 0% | 0% | |
| Adj. Flow (vph) | 573 | 342 | 0 | 714 | 629 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 573 | 342 | 0 | 714 | 629 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 1.0 |
| Minimum Split (s) | 50.0 | 50.0 | | 22.5 | 22.5 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 45.0 | 45.0 | | 80.0 | 68.0 | | |
| Actuated g/C Ratio | 0.33 | 0.33 | | 0.59 | 0.50 | | |
| v/c Ratio | 0.95 | 0.49 | | 0.34 | 0.35 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Control Delay | 71.1 | 11.1 | | 14.6 | 4.0 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.2 | | |
| Total Delay | 71.1 | 11.1 | | 14.6 | 4.2 | | |
| LOS | E | B | | B | A | | |
| Approach Delay | 48.7 | | | 14.6 | 4.2 | | |
| Approach LOS | D | | | B | A | | |
| Queue Length 50th (ft) | 490 | 49 | | 160 | 20 | | |
| Queue Length 95th (ft) | #625 | 105 | | 187 | 23 | | |
| Internal Link Dist (ft) | 305 | | | 308 | 187 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 601 | 698 | | 2097 | 1818 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 477 | | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.95 | 0.49 | | 0.34 | 0.47 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.95 | |
| Intersection Signal Delay: 25.5 | Intersection LOS: C |
| Intersection Capacity Utilization 79.4% | ICU Level of Service D |
| Analysis Period (min) 15 | |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Splits and Phases: 41: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.2 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 38 | 1 | 1 | 461 | 129 | 18 |
| Future Vol, veh/h | 38 | 1 | 1 | 461 | 129 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 65 | 65 | 83 | 83 | 77 | 77 |
| Heavy Vehicles, % | 3 | 0 | 0 | 5 | 12 | 6 |
| Mvmt Flow | 58 | 2 | 1 | 555 | 168 | 23 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 737 | 180 | 191 | 0 | - | 0 |
| Stage 1 | 180 | - | - | - | - | - |
| Stage 2 | 557 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 384 | 868 | 1395 | - | - | - |
| Stage 1 | 849 | - | - | - | - | - |
| Stage 2 | 572 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 384 | 868 | 1395 | - | - | - |
| Mov Cap-2 Maneuver | 384 | - | - | - | - | - |
| Stage 1 | 848 | - | - | - | - | - |
| Stage 2 | 572 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.9 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1395 | - | 390 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.154 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 15.9 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.5 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1 | | | | | |

| Movement | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 456 | 130 | 0 | 6 | 44 |
| Future Vol, veh/h | 23 | 456 | 130 | 0 | 6 | 44 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 4 | 5 | 12 | 0 | 0 | 0 |
| Mvmt Flow | 29 | 570 | 157 | 0 | 7 | 53 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 157 | 0 | - | 0 | 785 | 157 |
| Stage 1 | - | - | - | - | 157 | - |
| Stage 2 | - | - | - | - | 628 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1411 | - | - | - | 364 | 894 |
| Stage 1 | - | - | - | - | 876 | - |
| Stage 2 | - | - | - | - | 536 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1411 | - | - | - | 353 | 894 |
| Mov Cap-2 Maneuver | - | - | - | - | 353 | - |
| Stage 1 | - | - | - | - | 850 | - |
| Stage 2 | - | - | - | - | 536 | - |

| Approach | NB | SB | SE |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 10.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBL | NBT | SELn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1411 | - | 755 | - | - |
| HCM Lane V/C Ratio | 0.02 | - | 0.08 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 10.2 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

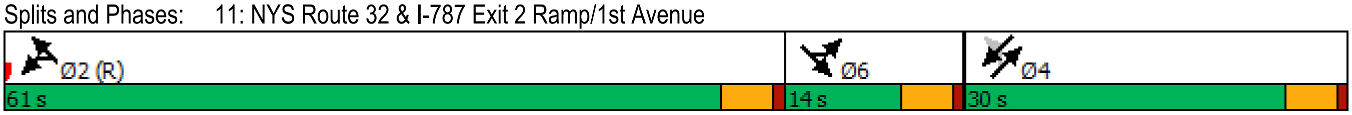
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 0 | 44 | 834 | 96 | 57 | 5 | 58 | 0 | 0 | 193 | 8 |
| Future Volume (vph) | 2 | 0 | 44 | 834 | 96 | 57 | 5 | 58 | 0 | 0 | 193 | 8 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.87 | | | | | | | | | | |
| Frt | | 0.871 | | | 0.944 | | | | | | 0.994 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.996 | | | | |
| Satd. Flow (prot) | 0 | 1359 | 0 | 1719 | 1755 | 0 | 0 | 1690 | 0 | 0 | 1715 | 0 |
| Flt Permitted | | 0.998 | | 0.950 | | | | 0.972 | | | | |
| Satd. Flow (perm) | 0 | 1353 | 0 | 1719 | 1755 | 0 | 0 | 1649 | 0 | 0 | 1715 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 43 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 5% | 0% | 6% | 0% | 13% | 0% | 0% | 10% | 13% |
| Adj. Flow (vph) | 3 | 0 | 60 | 927 | 107 | 63 | 6 | 70 | 0 | 0 | 210 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 63 | 0 | 927 | 170 | 0 | 0 | 76 | 0 | 0 | 219 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 61.0 | 61.0 | | 30.0 | 30.0 | | | 30.0 | |
| Total Split (%) | 13.3% | 13.3% | | 58.1% | 58.1% | | 28.6% | 28.6% | | | 28.6% | |
| Maximum Green (s) | 9.0 | 9.0 | | 56.0 | 56.0 | | 25.0 | 25.0 | | | 25.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 6.4 | | 67.2 | 67.2 | | | 18.5 | | | 18.5 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.06 | | 0.64 | 0.64 | | | 0.18 | | | 0.18 | |
| v/c Ratio | | 0.42 | | 0.84 | 0.15 | | | 0.26 | | | 0.73 | |
| Control Delay | | 17.6 | | 26.5 | 7.6 | | | 37.9 | | | 53.7 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 17.6 | | 26.5 | 7.6 | | | 37.9 | | | 53.7 | |
| LOS | | B | | C | A | | | D | | | D | |
| Approach Delay | | 17.6 | | | 23.5 | | | 37.9 | | | 53.7 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 461 | 31 | | | 45 | | | 139 | |
| Queue Length 95th (ft) | | 18 | | #898 | 77 | | | 74 | | | 206 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 183 | | 1100 | 1139 | | | 392 | | | 409 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.34 | | 0.84 | 0.15 | | | 0.19 | | | 0.54 | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue

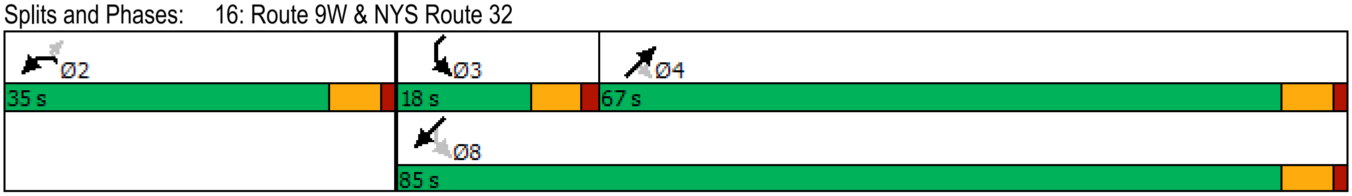


| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 278 | 95 | 1030 | 88 | 84 | 1371 |
| Future Volume (vph) | 278 | 95 | 1030 | 88 | 84 | 1371 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1719 | 1455 | 3471 | 1509 | 1583 | 3539 |
| Flt Permitted | 0.950 | | | | 0.104 | |
| Satd. Flow (perm) | 1719 | 1455 | 3471 | 1509 | 173 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 54 | | 89 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 11% | 4% | 7% | 14% | 2% |
| Adj. Flow (vph) | 305 | 104 | 1132 | 97 | 89 | 1459 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 305 | 104 | 1132 | 97 | 89 | 1459 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 35.0 | 35.0 | 67.0 | 67.0 | 18.0 | 85.0 |
| Total Split (%) | 29.2% | 29.2% | 55.8% | 55.8% | 15.0% | 70.8% |
| Maximum Green (s) | 29.0 | 29.0 | 61.0 | 61.0 | 12.0 | 79.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 29.6 | 29.6 | 39.6 | 39.6 | 50.5 | 50.5 |
| Actuated g/C Ratio | 0.32 | 0.32 | 0.43 | 0.43 | 0.55 | 0.55 |
| v/c Ratio | 0.55 | 0.21 | 0.76 | 0.14 | 0.41 | 0.75 |
| Control Delay | 33.6 | 16.2 | 26.6 | 4.8 | 14.9 | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 33.6 | 16.2 | 26.6 | 4.8 | 14.9 | 18.3 |
| LOS | C | B | C | A | B | B |
| Approach Delay | 29.2 | | 24.9 | | | 18.1 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 150 | 21 | 300 | 3 | 23 | 317 |
| Queue Length 95th (ft) | 289 | 71 | 388 | 31 | 43 | 390 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 550 | 502 | 2338 | 1045 | 281 | 3024 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.55 | 0.21 | 0.48 | 0.09 | 0.32 | 0.48 |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 120 | |
| Actuated Cycle Length: 92.3 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 22.1 | Intersection LOS: C |
| Intersection Capacity Utilization 63.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 16: Route 9W & NYS Route 32



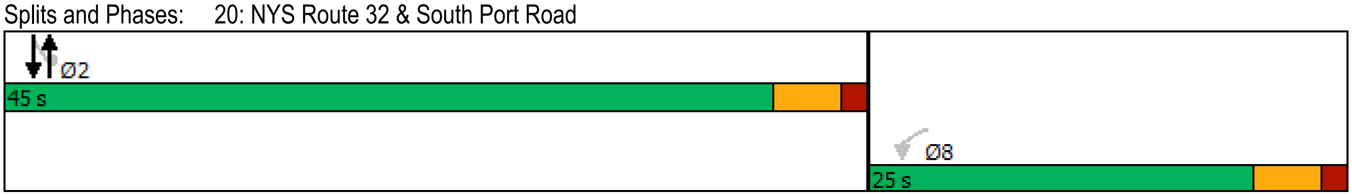
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 68 | 12 | 226 | 13 | 5 | 883 |
| Future Volume (vph) | 68 | 12 | 226 | 13 | 5 | 883 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.980 | | 0.993 | | | |
| Flt Protected | 0.959 | | | | | |
| Satd. Flow (prot) | 1651 | 0 | 1711 | 0 | 0 | 1806 |
| Flt Permitted | 0.959 | | | | | 0.999 |
| Satd. Flow (perm) | 1651 | 0 | 1711 | 0 | 0 | 1805 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 13 | | 7 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 8% | 9% | 8% | 50% | 40% | 5% |
| Adj. Flow (vph) | 80 | 14 | 314 | 18 | 5 | 939 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 94 | 0 | 332 | 0 | 0 | 944 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 8.7 | | 51.5 | | | 51.5 |
| Actuated g/C Ratio | 0.13 | | 0.77 | | | 0.77 |
| v/c Ratio | 0.42 | | 0.25 | | | 0.68 |
| Control Delay | 28.6 | | 4.0 | | | 9.5 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 28.6 | | 4.0 | | | 9.5 |
| LOS | C | | A | | | A |
| Approach Delay | 28.6 | | 4.0 | | | 9.5 |
| Approach LOS | C | | A | | | A |
| Queue Length 50th (ft) | 34 | | 36 | | | 178 |
| Queue Length 95th (ft) | 59 | | 56 | | | #395 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 506 | | 1320 | | | 1391 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.19 | | 0.25 | | | 0.68 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.8
Natural Cycle: 65
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 9.5 Intersection LOS: A
Intersection Capacity Utilization 63.3% ICU Level of Service B
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 6 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 63 | 265 | 159 | 108 | 209 | 79 |
| Future Vol, veh/h | 63 | 265 | 159 | 108 | 209 | 79 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 82 | 82 | 74 | 74 | 85 | 85 |
| Heavy Vehicles, % | 12 | 3 | 9 | 8 | 4 | 8 |
| Mvmt Flow | 77 | 323 | 215 | 146 | 246 | 93 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 869 | 293 | 246 | 0 | - | 0 |
| Stage 1 | 293 | - | - | - | - | - |
| Stage 2 | 576 | - | - | - | - | - |
| Critical Hdwy | 6.52 | 6.23 | 4.19 | - | - | - |
| Critical Hdwy Stg 1 | 5.52 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.52 | - | - | - | - | - |
| Follow-up Hdwy | 3.608 | 3.327 | 2.281 | - | - | - |
| Pot Cap-1 Maneuver | 310 | 744 | 1280 | - | - | - |
| Stage 1 | 735 | - | - | - | - | - |
| Stage 2 | 543 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 253 | 744 | 1280 | - | - | - |
| Mov Cap-2 Maneuver | 253 | - | - | - | - | - |
| Stage 1 | 600 | - | - | - | - | - |
| Stage 2 | 543 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 11.9 | 5 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1280 | - | 921 | - | - |
| HCM Lane V/C Ratio | 0.168 | - | 0.434 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | 11.9 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | 2.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 21 | 178 | 383 | 271 | 56 | 32 |
| Future Vol, veh/h | 21 | 178 | 383 | 271 | 56 | 32 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 77 | 77 | 84 | 84 | 81 | 81 |
| Heavy Vehicles, % | 4 | 0 | 0 | 5 | 5 | 1 |
| Mvmt Flow | 27 | 231 | 456 | 323 | 69 | 40 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 779 | 0 | - | 0 | 903 | 618 |
| Stage 1 | - | - | - | - | 618 | - |
| Stage 2 | - | - | - | - | 285 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.45 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.545 | 3.309 |
| Pot Cap-1 Maneuver | 829 | - | - | - | 304 | 491 |
| Stage 1 | - | - | - | - | 532 | - |
| Stage 2 | - | - | - | - | 757 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 829 | - | - | - | 293 | 491 |
| Mov Cap-2 Maneuver | - | - | - | - | 293 | - |
| Stage 1 | - | - | - | - | 512 | - |
| Stage 2 | - | - | - | - | 757 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 20.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 343 | 829 | - | - | - |
| HCM Lane V/C Ratio | 0.317 | 0.033 | - | - | - |
| HCM Control Delay (s) | 20.3 | 9.5 | 0 | - | - |
| HCM Lane LOS | C | A | A | - | - |
| HCM 95th %tile Q(veh) | 1.3 | 0.1 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 29 | 65 | 42 | 210 | 637 | 314 |
| Future Vol, veh/h | 29 | 65 | 42 | 210 | 637 | 314 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 88 | 88 | 91 | 91 |
| Heavy Vehicles, % | 29 | 14 | 10 | 7 | 7 | 2 |
| Mvmt Flow | 32 | 71 | 48 | 239 | 700 | 345 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1208 | 873 | 1045 | 0 | - | 0 |
| Stage 1 | 873 | - | - | - | - | - |
| Stage 2 | 335 | - | - | - | - | - |
| Critical Hdwy | 6.69 | 6.34 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.69 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.69 | - | - | - | - | - |
| Follow-up Hdwy | 3.761 | 3.426 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 179 | 333 | 636 | - | - | - |
| Stage 1 | 367 | - | - | - | - | - |
| Stage 2 | 668 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 163 | 333 | 636 | - | - | - |
| Mov Cap-2 Maneuver | 163 | - | - | - | - | - |
| Stage 1 | 335 | - | - | - | - | - |
| Stage 2 | 668 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 22.9 | 1.9 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 636 | - | 163 | 333 | - | - |
| HCM Lane V/C Ratio | 0.075 | - | 0.193 | 0.212 | - | - |
| HCM Control Delay (s) | 11.1 | 0 | 32.3 | 18.7 | - | - |
| HCM Lane LOS | B | A | D | C | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.7 | 0.8 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 3.1 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 57 | 31 | 83 | 91 | 15 | 58 |
| Future Vol, veh/h | 57 | 31 | 83 | 91 | 15 | 58 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 83 | 83 | 84 | 84 | 78 | 78 |
| Heavy Vehicles, % | 26 | 10 | 25 | 13 | 0 | 37 |
| Mvmt Flow | 69 | 37 | 99 | 108 | 19 | 74 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 265 | 153 | 0 | 0 | 207 | 0 |
| Stage 1 | 153 | - | - | - | - | - |
| Stage 2 | 112 | - | - | - | - | - |
| Critical Hdwy | 6.66 | 6.3 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.66 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.66 | - | - | - | - | - |
| Follow-up Hdwy | 3.734 | 3.39 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 675 | 872 | - | - | 1376 | - |
| Stage 1 | 820 | - | - | - | - | - |
| Stage 2 | 856 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 666 | 872 | - | - | 1376 | - |
| Mov Cap-2 Maneuver | 666 | - | - | - | - | - |
| Stage 1 | 820 | - | - | - | - | - |
| Stage 2 | 844 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.4 | 0 | 1.6 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 666 | 872 | 1376 | - |
| HCM Lane V/C Ratio | - | - | 0.103 | 0.043 | 0.014 | - |
| HCM Control Delay (s) | - | - | 11 | 9.3 | 7.7 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.3 | 0.1 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 2 | 5 | 168 | 387 | 5 |
| Future Vol, veh/h | 4 | 2 | 5 | 168 | 387 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 30 | 80 | 88 | 63 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 8 | 4 | 17 | 210 | 440 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 688 | 444 | 448 | 0 | - | 0 |
| Stage 1 | 444 | - | - | - | - | - |
| Stage 2 | 244 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 415 | 618 | 1123 | - | - | - |
| Stage 1 | 651 | - | - | - | - | - |
| Stage 2 | 801 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 408 | 618 | 1123 | - | - | - |
| Mov Cap-2 Maneuver | 408 | - | - | - | - | - |
| Stage 1 | 640 | - | - | - | - | - |
| Stage 2 | 801 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13 | 0.6 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1123 | - | 460 | - | - |
| HCM Lane V/C Ratio | 0.015 | - | 0.026 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 13 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

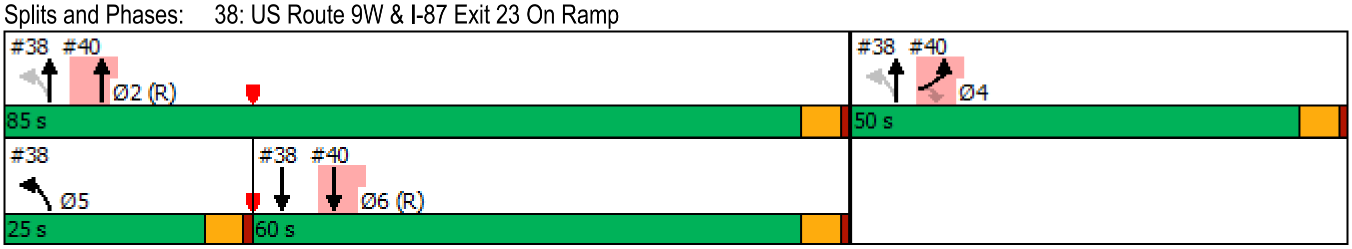
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 361 | 444 | 1179 | 532 | | |
| Future Volume (vph) | 0 | 0 | 361 | 444 | 1179 | 532 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.953 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1770 | 1863 | 3373 | 0 | | |
| Flt Permitted | | | 0.042 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 78 | 1863 | 3373 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 65 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 314 | | | 227 | 306 | | | |
| Travel Time (s) | 7.1 | | | 5.2 | 7.0 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.93 | 0.93 | 0.97 | 0.97 | | |
| Adj. Flow (vph) | 0 | 0 | 388 | 477 | 1215 | 548 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 388 | 477 | 1763 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 61.2 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.45 | | | |
| v/c Ratio | | | 0.77 | 0.26 | 1.13 | | | |
| Control Delay | | | 40.7 | 0.4 | 100.1 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Queue Delay | | | 54.6 | 0.0 | 0.0 | | | |
| Total Delay | | | 95.3 | 0.4 | 100.1 | | | |
| LOS | | | F | A | F | | | |
| Approach Delay | | | | 42.9 | 100.1 | | | |
| Approach LOS | | | | D | F | | | |
| Queue Length 50th (ft) | | | 276 | 1 | ~918 | | | |
| Queue Length 95th (ft) | | | #456 | 3 | #1139 | | | |
| Internal Link Dist (ft) | 234 | | | 147 | 226 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 503 | 1863 | 1563 | | | |
| Starvation Cap Reductn | | | 151 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 17 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 1.10 | 0.26 | 1.14 | | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 81.3 Intersection LOS: F
Intersection Capacity Utilization 99.7% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: US Route 9W & I-87 Exit 23 On Ramp



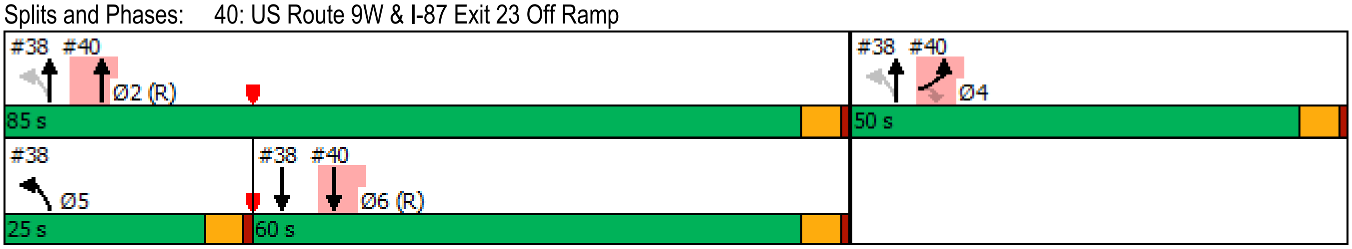
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 187 | 331 | 0 | 618 | 1179 | 0 | |
| Future Volume (vph) | 187 | 331 | 0 | 618 | 1179 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 303 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 298 | | | 384 | 227 | | |
| Travel Time (s) | 6.8 | | | 8.7 | 5.2 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.89 | 0.89 | 0.95 | 0.95 | |
| Adj. Flow (vph) | 193 | 341 | 0 | 694 | 1241 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 193 | 341 | 0 | 694 | 1241 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 24.7 | 24.7 | | 100.3 | 61.2 | | |
| Actuated g/C Ratio | 0.18 | 0.18 | | 0.74 | 0.45 | | |
| v/c Ratio | 0.60 | 0.64 | | 0.26 | 0.77 | | |
| Control Delay | 57.1 | 13.0 | | 6.5 | 7.7 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Queue Delay | 0.6 | 0.0 | | 0.0 | 30.6 | | |
| Total Delay | 57.7 | 13.0 | | 6.6 | 38.3 | | |
| LOS | E | B | | A | D | | |
| Approach Delay | 29.1 | | | 6.6 | 38.3 | | |
| Approach LOS | C | | | A | D | | |
| Queue Length 50th (ft) | 157 | 28 | | 90 | 68 | | |
| Queue Length 95th (ft) | 216 | 114 | | 153 | m69 | | |
| Internal Link Dist (ft) | 218 | | | 304 | 147 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 590 | 729 | | 2629 | 1603 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 427 | | |
| Spillback Cap Reductn | 163 | 0 | | 101 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.45 | 0.47 | | 0.27 | 1.06 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.13 | |
| Intersection Signal Delay: 27.4 | Intersection LOS: C |
| Intersection Capacity Utilization 99.7% | ICU Level of Service F |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 0 | 1 | 201 | 381 | 57 |
| Future Vol, veh/h | 11 | 0 | 1 | 201 | 381 | 57 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 46 | 46 | 89 | 89 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 24 | 0 | 1 | 226 | 419 | 63 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 679 | 451 | 482 | 0 | - | 0 |
| Stage 1 | 451 | - | - | - | - | - |
| Stage 2 | 228 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 420 | 613 | 1091 | - | - | - |
| Stage 1 | 646 | - | - | - | - | - |
| Stage 2 | 815 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 420 | 613 | 1091 | - | - | - |
| Mov Cap-2 Maneuver | 420 | - | - | - | - | - |
| Stage 1 | 645 | - | - | - | - | - |
| Stage 2 | 815 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.1 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1091 | - | 420 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.057 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 14.1 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.8 | | | | | |

| Movement | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 34 | 199 | 381 | 0 | 3 | 15 |
| Future Vol, veh/h | 34 | 199 | 381 | 0 | 3 | 15 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 88 | 88 | 75 | 75 |
| Heavy Vehicles, % | 3 | 7 | 4 | 0 | 0 | 7 |
| Mvmt Flow | 39 | 229 | 433 | 0 | 4 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 433 | 0 | - | 0 | 740 | 433 |
| Stage 1 | - | - | - | - | 433 | - |
| Stage 2 | - | - | - | - | 307 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.4 | 6.27 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.5 | 3.363 |
| Pot Cap-1 Maneuver | 1121 | - | - | - | 387 | 612 |
| Stage 1 | - | - | - | - | 658 | - |
| Stage 2 | - | - | - | - | 751 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1121 | - | - | - | 372 | 612 |
| Mov Cap-2 Maneuver | - | - | - | - | 372 | - |
| Stage 1 | - | - | - | - | 632 | - |
| Stage 2 | - | - | - | - | 751 | - |

| Approach | NB | SB | SE |
|---|---|---|---|
| HCM Control Delay, s | 1.2 | 0 | 11.8 |
| HCM LOS | | | B |

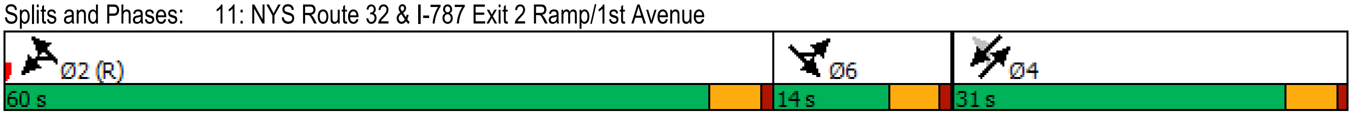
| Minor Lane/Major Mvmt | NBL | NBT | SELn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1121 | - | 553 | - | - |
| HCM Lane V/C Ratio | 0.035 | - | 0.043 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 11.8 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 30 | 395 | 53 | 90 | 8 | 61 | 0 | 0 | 99 | 4 |
| Future Volume (vph) | 3 | 0 | 30 | 395 | 53 | 90 | 8 | 61 | 0 | 0 | 99 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.88 | | | | | | | | | | |
| Frt | | 0.878 | | | 0.906 | | | | | | 0.995 | |
| Flt Protected | | 0.995 | | 0.950 | | | | 0.994 | | | | |
| Satd. Flow (prot) | 0 | 1380 | 0 | 1444 | 1426 | 0 | 0 | 1644 | 0 | 0 | 1599 | 0 |
| Flt Permitted | | 0.995 | | 0.950 | | | | 0.957 | | | | |
| Satd. Flow (perm) | 0 | 1368 | 0 | 1444 | 1426 | 0 | 0 | 1583 | 0 | 0 | 1599 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 101 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 25% | 0% | 33% | 14% | 15% | 0% | 0% | 18% | 25% |
| Adj. Flow (vph) | 4 | 0 | 37 | 444 | 60 | 101 | 9 | 67 | 0 | 0 | 127 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 41 | 0 | 444 | 161 | 0 | 0 | 76 | 0 | 0 | 132 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 5.7 | | 74.6 | 74.6 | | | 13.9 | | | 13.9 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.05 | | 0.71 | 0.71 | | | 0.13 | | | 0.13 | |
| v/c Ratio | | 0.28 | | 0.43 | 0.15 | | | 0.37 | | | 0.62 | |
| Control Delay | | 8.4 | | 9.7 | 3.4 | | | 45.1 | | | 54.5 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.4 | | 9.7 | 3.4 | | | 45.1 | | | 54.5 | |
| LOS | | A | | A | A | | | D | | | D | |
| Approach Delay | | 8.4 | | | 8.0 | | | 45.1 | | | 54.5 | |
| Approach LOS | | A | | | A | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 127 | 12 | | | 47 | | | 84 | |
| Queue Length 95th (ft) | | 7 | | 234 | 41 | | | 88 | | | 118 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 185 | | 1025 | 1042 | | | 391 | | | 397 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.22 | | 0.43 | 0.15 | | | 0.19 | | | 0.33 | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 105 | |
| Actuated Cycle Length: 105 | |
| Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.62 | |
| Intersection Signal Delay: 18.5 | Intersection LOS: B |
| Intersection Capacity Utilization 46.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



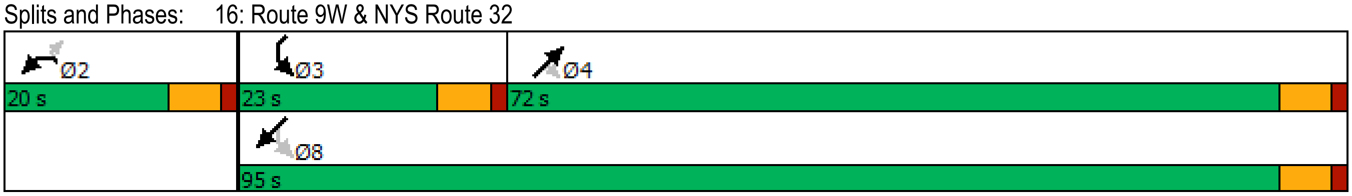
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 93 | 153 | 2035 | 165 | 101 | 821 |
| Future Volume (vph) | 93 | 153 | 2035 | 165 | 101 | 821 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1442 | 3505 | 1482 | 1388 | 3406 |
| Flt Permitted | 0.950 | | | | 0.055 | |
| Satd. Flow (perm) | 1530 | 1442 | 3505 | 1482 | 80 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 176 | | 102 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.87 | 0.87 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 12% | 3% | 9% | 30% | 6% |
| Adj. Flow (vph) | 107 | 176 | 2188 | 177 | 119 | 966 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 107 | 176 | 2188 | 177 | 119 | 966 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 20.0 | 20.0 | 72.0 | 72.0 | 23.0 | 95.0 |
| Total Split (%) | 17.4% | 17.4% | 62.6% | 62.6% | 20.0% | 82.6% |
| Maximum Green (s) | 14.0 | 14.0 | 66.0 | 66.0 | 17.0 | 89.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 14.0 | 14.0 | 66.1 | 66.1 | 82.7 | 82.7 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.61 | 0.61 | 0.76 | 0.76 |
| v/c Ratio | 0.54 | 0.52 | 1.03 | 0.19 | 0.63 | 0.37 |
| Control Delay | 56.5 | 12.8 | 49.3 | 5.1 | 36.0 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.5 | 12.8 | 49.3 | 5.1 | 36.0 | 4.8 |
| LOS | E | B | D | A | D | A |
| Approach Delay | 29.3 | | 46.0 | | | 8.2 |
| Approach LOS | C | | D | | | A |
| Queue Length 50th (ft) | 70 | 0 | ~851 | 20 | 40 | 98 |
| Queue Length 95th (ft) | 131 | 58 | #1095 | 56 | 91 | 113 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 197 | 339 | 2130 | 941 | 265 | 2792 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.54 | 0.52 | 1.03 | 0.19 | 0.45 | 0.35 |

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 108.7
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 33.7 — Intersection LOS: C
Intersection Capacity Utilization 82.0% — ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



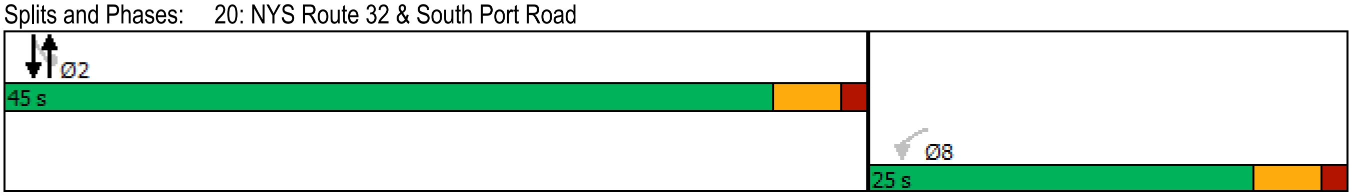
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 17 | 30 | 717 | 39 | 37 | 258 |
| Future Volume (vph) | 17 | 30 | 717 | 39 | 37 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.914 | | 0.993 | | | |
| Flt Protected | 0.982 | | | | | 0.994 |
| Satd. Flow (prot) | 1037 | 0 | 1770 | 0 | 0 | 1512 |
| Flt Permitted | 0.982 | | | | | 0.859 |
| Satd. Flow (perm) | 1037 | 0 | 1770 | 0 | 0 | 1307 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 40 | | 7 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.75 | 0.75 | 0.87 | 0.87 | 0.84 | 0.84 |
| Heavy Vehicles (%) | 60% | 67% | 6% | 18% | 52% | 21% |
| Adj. Flow (vph) | 23 | 40 | 824 | 45 | 44 | 307 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 63 | 0 | 869 | 0 | 0 | 351 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 7.7 | | 55.7 | | | 55.7 |
| Actuated g/C Ratio | 0.12 | | 0.84 | | | 0.84 |
| v/c Ratio | 0.41 | | 0.59 | | | 0.32 |
| Control Delay | 22.3 | | 6.3 | | | 4.0 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 22.3 | | 6.3 | | | 4.0 |
| LOS | C | | A | | | A |
| Approach Delay | 22.3 | | 6.3 | | | 4.0 |
| Approach LOS | C | | A | | | A |
| Queue Length 50th (ft) | 10 | | 129 | | | 37 |
| Queue Length 95th (ft) | 30 | | 289 | | | 84 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 341 | | 1481 | | | 1093 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.18 | | 0.59 | | | 0.32 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.6
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 6.5 — Intersection LOS: A
Intersection Capacity Utilization 57.3% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 6.4 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 59 | 229 | 325 | 333 | 75 | 128 |
| Future Vol, veh/h | 59 | 229 | 325 | 333 | 75 | 128 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 91 | 91 | 88 | 88 |
| Heavy Vehicles, % | 9 | 20 | 10 | 10 | 18 | 17 |
| Mvmt Flow | 66 | 254 | 357 | 366 | 85 | 145 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1238 | 158 | 85 | 0 | - | 0 |
| Stage 1 | 158 | - | - | - | - | - |
| Stage 2 | 1080 | - | - | - | - | - |
| Critical Hdwy | 6.49 | 6.4 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.49 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.49 | - | - | - | - | - |
| Follow-up Hdwy | 3.581 | 3.48 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 188 | 842 | 1462 | - | - | - |
| Stage 1 | 854 | - | - | - | - | - |
| Stage 2 | 316 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 130 | 842 | 1462 | - | - | - |
| Mov Cap-2 Maneuver | 130 | - | - | - | - | - |
| Stage 1 | 593 | - | - | - | - | - |
| Stage 2 | 316 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 16.3 | 4.1 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1462 | - | 635 | - | - |
| HCM Lane V/C Ratio | 0.244 | - | 0.504 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 16.3 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 2.8 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 10.6 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 19 | 541 | 194 | 62 | 170 | 17 |
| Future Vol, veh/h | 19 | 541 | 194 | 62 | 170 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 84 | 84 | 81 | 81 | 83 | 83 |
| Heavy Vehicles, % | 3 | 0 | 22 | 10 | 12 | 11 |
| Mvmt Flow | 23 | 644 | 240 | 77 | 205 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 317 | 0 | - | 0 | 969 | 279 |
| Stage 1 | - | - | - | - | 279 | - |
| Stage 2 | - | - | - | - | 690 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.52 | 6.31 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.52 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.608 | 3.399 |
| Pot Cap-1 Maneuver | 1237 | - | - | - | 270 | 739 |
| Stage 1 | - | - | - | - | 746 | - |
| Stage 2 | - | - | - | - | 480 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1237 | - | - | - | 262 | 739 |
| Mov Cap-2 Maneuver | - | - | - | - | 262 | - |
| Stage 1 | - | - | - | - | 724 | - |
| Stage 2 | - | - | - | - | 480 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 56.2 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 278 | 1237 | - | - | - |
| HCM Lane V/C Ratio | 0.81 | 0.018 | - | - | - |
| HCM Control Delay (s) | 56.2 | 8 | 0 | - | - |
| HCM Lane LOS | F | A | A | - | - |
| HCM 95th %tile Q(veh) | 6.5 | 0.1 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 102 | 48 | 56 | 654 | 224 | 51 |
| Future Vol, veh/h | 102 | 48 | 56 | 654 | 224 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 86 | 86 | 90 | 90 |
| Heavy Vehicles, % | 13 | 28 | 20 | 9 | 23 | 28 |
| Mvmt Flow | 117 | 55 | 65 | 760 | 249 | 57 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1168 | 278 | 306 | 0 | - | 0 |
| Stage 1 | 278 | - | - | - | - | - |
| Stage 2 | 890 | - | - | - | - | - |
| Critical Hdwy | 6.53 | 6.48 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.53 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.53 | - | - | - | - | - |
| Follow-up Hdwy | 3.617 | 3.552 | 2.38 | - | - | - |
| Pot Cap-1 Maneuver | 203 | 703 | 1159 | - | - | - |
| Stage 1 | 744 | - | - | - | - | - |
| Stage 2 | 384 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 183 | 703 | 1159 | - | - | - |
| Mov Cap-2 Maneuver | 183 | - | - | - | - | - |
| Stage 1 | 672 | - | - | - | - | - |
| Stage 2 | 384 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 40.3 | 0.7 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1159 | - | 183 | 703 | - | - |
| HCM Lane V/C Ratio | 0.056 | - | 0.641 | 0.078 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 54.3 | 10.6 | - | - |
| HCM Lane LOS | A | A | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 3.7 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 111 | 7 | 42 | 40 | 43 | 52 |
| Future Vol, veh/h | 111 | 7 | 42 | 40 | 43 | 52 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 65 | 65 | 84 | 84 | 62 | 62 |
| Heavy Vehicles, % | 25 | 17 | 42 | 42 | 0 | 25 |
| Mvmt Flow | 171 | 11 | 50 | 48 | 69 | 84 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 296 | 74 | 0 | 0 | 98 | 0 |
| Stage 1 | 74 | - | - | - | - | - |
| Stage 2 | 222 | - | - | - | - | - |
| Critical Hdwy | 6.65 | 6.37 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.65 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.65 | - | - | - | - | - |
| Follow-up Hdwy | 3.725 | 3.453 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 649 | 947 | - | - | 1508 | - |
| Stage 1 | 894 | - | - | - | - | - |
| Stage 2 | 763 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 619 | 947 | - | - | 1508 | - |
| Mov Cap-2 Maneuver | 619 | - | - | - | - | - |
| Stage 1 | 894 | - | - | - | - | - |
| Stage 2 | 728 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.8 | 0 | 3.4 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 619 | 947 | 1508 | - |
| HCM Lane V/C Ratio | - | - | 0.276 | 0.011 | 0.046 | - |
| HCM Control Delay (s) | - | - | 13 | 8.8 | 7.5 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 1.1 | 0 | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 14 | 3 | 474 | 177 | 1 |
| Future Vol, veh/h | 6 | 14 | 3 | 474 | 177 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 42 | 81 | 75 | 72 | 93 | 25 |
| Heavy Vehicles, % | 0 | 8 | 0 | 8 | 20 | 0 |
| Mvmt Flow | 14 | 17 | 4 | 658 | 190 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 858 | 192 | 194 | 0 | - | 0 |
| Stage 1 | 192 | - | - | - | - | - |
| Stage 2 | 666 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.28 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.372 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 330 | 834 | 1391 | - | - | - |
| Stage 1 | 845 | - | - | - | - | - |
| Stage 2 | 515 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 328 | 834 | 1391 | - | - | - |
| Mov Cap-2 Maneuver | 328 | - | - | - | - | - |
| Stage 1 | 841 | - | - | - | - | - |
| Stage 2 | 515 | - | - | - | - | - |

| Approach | EB | | NB | | SB | |
|---|---|---|---|---|---|---|
| HCM Control Delay, s | 12.8 | | 0 | | 0 | |
| HCM LOS | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1391 | - | 491 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.064 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 12.8 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

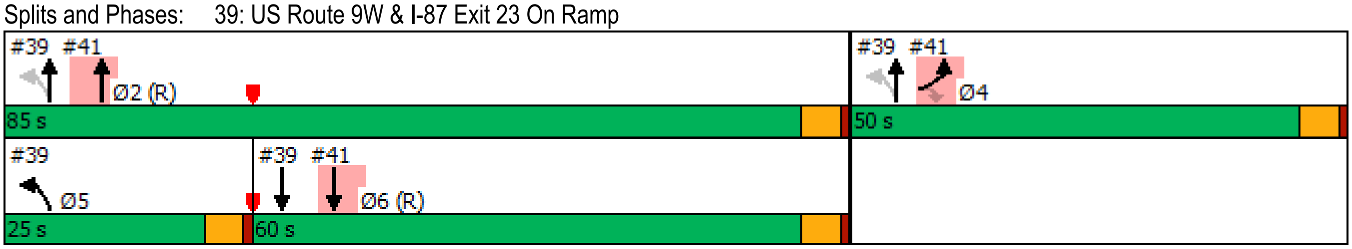
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 340 | 804 | 647 | 214 | | |
| Future Volume (vph) | 0 | 0 | 340 | 804 | 647 | 214 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.963 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1656 | 1863 | 3319 | 0 | | |
| Flt Permitted | | | 0.243 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 424 | 1863 | 3319 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 40 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 346 | | | 240 | 257 | | | |
| Travel Time (s) | 7.9 | | | 5.5 | 5.8 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.89 | 0.89 | 0.93 | 0.93 | | |
| Heavy Vehicles (%) | 2% | 2% | 9% | 2% | 6% | 1% | | |
| Adj. Flow (vph) | 0 | 0 | 382 | 903 | 696 | 230 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 382 | 903 | 926 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 66.1 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.49 | | | |
| v/c Ratio | | | 0.78 | 0.48 | 0.56 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Control Delay | | | 14.8 | 1.3 | 25.5 | | | |
| Queue Delay | | | 0.3 | 0.0 | 0.0 | | | |
| Total Delay | | | 15.1 | 1.3 | 25.5 | | | |
| LOS | | | B | A | C | | | |
| Approach Delay | | | | 5.4 | 25.5 | | | |
| Approach LOS | | | | A | C | | | |
| Queue Length 50th (ft) | | | 54 | 42 | 266 | | | |
| Queue Length 95th (ft) | | | m65 | m21 | 395 | | | |
| Internal Link Dist (ft) | 266 | | | 160 | 177 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 590 | 1863 | 1646 | | | |
| Starvation Cap Reductn | | | 26 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 0 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 0.68 | 0.48 | 0.56 | | | |

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 13.8 Intersection LOS: B
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 39: US Route 9W & I-87 Exit 23 On Ramp



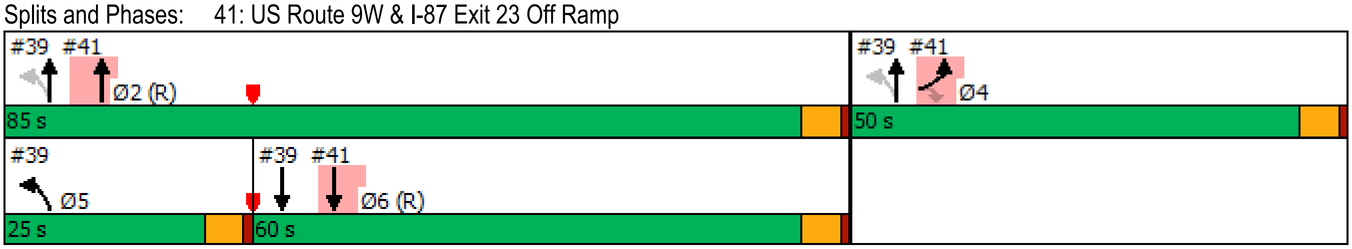
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 500 | 298 | 0 | 644 | 647 | 0 | |
| Future Volume (vph) | 500 | 298 | 0 | 644 | 647 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 262 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 284 | | | 365 | 240 | | |
| Travel Time (s) | 6.5 | | | 8.3 | 5.5 | | |
| Peak Hour Factor | 0.83 | 0.83 | 0.86 | 0.86 | 0.98 | 0.98 | |
| Heavy Vehicles (%) | 0% | 3% | 0% | 2% | 0% | 0% | |
| Adj. Flow (vph) | 602 | 359 | 0 | 749 | 660 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 602 | 359 | 0 | 749 | 660 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 45.0 | 45.0 | | 80.0 | 66.1 | | |
| Actuated g/C Ratio | 0.33 | 0.33 | | 0.59 | 0.49 | | |
| v/c Ratio | 1.00 | 0.52 | | 0.36 | 0.37 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Control Delay | 82.0 | 12.5 | | 14.8 | 3.9 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.3 | | |
| Total Delay | 82.0 | 12.5 | | 14.8 | 4.2 | | |
| LOS | F | B | | B | A | | |
| Approach Delay | 56.0 | | | 14.8 | 4.2 | | |
| Approach LOS | E | | | B | A | | |
| Queue Length 50th (ft) | ~528 | 60 | | 170 | 18 | | |
| Queue Length 95th (ft) | #676 | 122 | | 198 | 23 | | |
| Internal Link Dist (ft) | 204 | | | 285 | 160 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 601 | 697 | | 2097 | 1768 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 483 | | |
| Spillback Cap Reductn | 0 | 0 | | 2 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.00 | 0.52 | | 0.36 | 0.51 | | |

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 41: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 46 | 24 | 479 | 136 | 0 |
| Future Vol, veh/h | 6 | 46 | 24 | 479 | 136 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 80 | 80 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 4 | 5 | 12 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 58 | 29 | 577 | 164 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 799 | 164 | 164 | 0 | - | 0 |
| Stage 1 | 164 | - | - | - | - | - |
| Stage 2 | 635 | - | - | - | - | - |
| Critical Hdwy | 6.44 | 6.25 | 4.22 | - | - | - |
| Critical Hdwy Stg 1 | 5.44 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.44 | - | - | - | - | - |
| Follow-up Hdwy | 3.536 | 3.345 | 2.308 | - | - | - |
| Pot Cap-1 Maneuver | 352 | 873 | 1356 | - | - | - |
| Stage 1 | 860 | - | - | - | - | - |
| Stage 2 | 524 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 341 | 873 | 1356 | - | - | - |
| Mov Cap-2 Maneuver | 341 | - | - | - | - | - |
| Stage 1 | 833 | - | - | - | - | - |
| Stage 2 | 524 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.3 | 0.4 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1356 | - | 740 | - | - |
| HCM Lane V/C Ratio | 0.021 | - | 0.088 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | 10.3 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.2 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 40 | 1 | 1 | 484 | 135 | 19 |
| Future Vol, veh/h | 40 | 1 | 1 | 484 | 135 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 65 | 65 | 83 | 83 | 77 | 77 |
| Heavy Vehicles, % | 3 | 0 | 0 | 5 | 12 | 6 |
| Mvmt Flow | 62 | 2 | 1 | 583 | 175 | 25 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 773 | 188 | 200 | 0 | - | 0 |
| Stage 1 | 188 | - | - | - | - | - |
| Stage 2 | 585 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 366 | 859 | 1384 | - | - | - |
| Stage 1 | 842 | - | - | - | - | - |
| Stage 2 | 555 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 366 | 859 | 1384 | - | - | - |
| Mov Cap-2 Maneuver | 366 | - | - | - | - | - |
| Stage 1 | 841 | - | - | - | - | - |
| Stage 2 | 555 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 16.7 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1384 | - | 371 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.17 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 16.7 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.6 | - | - |

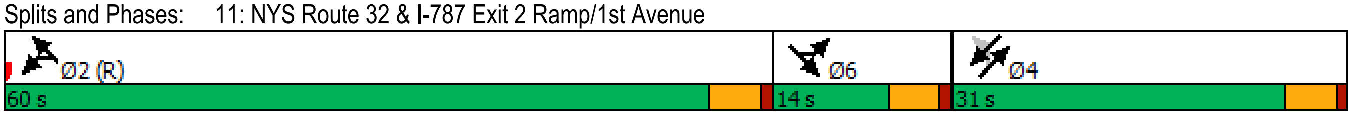
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 0 | 47 | 877 | 101 | 60 | 6 | 61 | 0 | 0 | 202 | 9 |
| Future Volume (vph) | 2 | 0 | 47 | 877 | 101 | 60 | 6 | 61 | 0 | 0 | 202 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.87 | | | | | | | | | | |
| Frt | | 0.871 | | | 0.944 | | | | | | 0.994 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.996 | | | | |
| Satd. Flow (prot) | 0 | 1358 | 0 | 1719 | 1754 | 0 | 0 | 1692 | 0 | 0 | 1715 | 0 |
| Flt Permitted | | 0.998 | | 0.950 | | | | 0.967 | | | | |
| Satd. Flow (perm) | 0 | 1353 | 0 | 1719 | 1754 | 0 | 0 | 1642 | 0 | 0 | 1715 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 43 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 5% | 0% | 6% | 0% | 13% | 0% | 0% | 10% | 13% |
| Adj. Flow (vph) | 3 | 0 | 64 | 974 | 112 | 67 | 7 | 73 | 0 | 0 | 220 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 67 | 0 | 974 | 179 | 0 | 0 | 80 | 0 | 0 | 230 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 6.5 | | 66.4 | 66.4 | | | 19.2 | | | 19.2 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.06 | | 0.63 | 0.63 | | | 0.18 | | | 0.18 | |
| v/c Ratio | | 0.44 | | 0.90 | 0.16 | | | 0.27 | | | 0.73 | |
| Control Delay | | 19.1 | | 31.8 | 8.0 | | | 37.4 | | | 53.3 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 19.1 | | 31.8 | 8.0 | | | 37.4 | | | 53.3 | |
| LOS | | B | | C | A | | | D | | | D | |
| Approach Delay | | 19.1 | | | 28.1 | | | 37.4 | | | 53.3 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 527 | 35 | | | 47 | | | 146 | |
| Queue Length 95th (ft) | | 22 | | #979 | 83 | | | 76 | | | 212 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 183 | | 1087 | 1125 | | | 406 | | | 426 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.37 | | 0.90 | 0.16 | | | 0.20 | | | 0.54 | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 32.0 Intersection LOS: C
Intersection Capacity Utilization 74.8% ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 291 | 100 | 1081 | 92 | 88 | 1439 |
| Future Volume (vph) | 291 | 100 | 1081 | 92 | 88 | 1439 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1719 | 1455 | 3471 | 1509 | 1583 | 3539 |
| Flt Permitted | 0.950 | | | | 0.096 | |
| Satd. Flow (perm) | 1719 | 1455 | 3471 | 1509 | 160 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 54 | | 89 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 11% | 4% | 7% | 14% | 2% |
| Adj. Flow (vph) | 320 | 110 | 1188 | 101 | 94 | 1531 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 320 | 110 | 1188 | 101 | 94 | 1531 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 35.0 | 35.0 | 67.0 | 67.0 | 18.0 | 85.0 |
| Total Split (%) | 29.2% | 29.2% | 55.8% | 55.8% | 15.0% | 70.8% |
| Maximum Green (s) | 29.0 | 29.0 | 61.0 | 61.0 | 12.0 | 79.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 29.5 | 29.5 | 42.4 | 42.4 | 53.5 | 53.5 |
| Actuated g/C Ratio | 0.31 | 0.31 | 0.44 | 0.44 | 0.56 | 0.56 |
| v/c Ratio | 0.60 | 0.23 | 0.77 | 0.14 | 0.45 | 0.77 |
| Control Delay | 36.7 | 17.8 | 26.5 | 4.8 | 16.1 | 18.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.7 | 17.8 | 26.5 | 4.8 | 16.1 | 18.6 |
| LOS | D | B | C | A | B | B |
| Approach Delay | 31.9 | | 24.8 | | | 18.4 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 165 | 24 | 323 | 4 | 24 | 345 |
| Queue Length 95th (ft) | 319 | 80 | 416 | 32 | 48 | 421 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 532 | 488 | 2263 | 1014 | 272 | 2955 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.23 | 0.52 | 0.10 | 0.35 | 0.52 |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 95.3

Natural Cycle: 60

Control Type: Semi Act-Uncoord

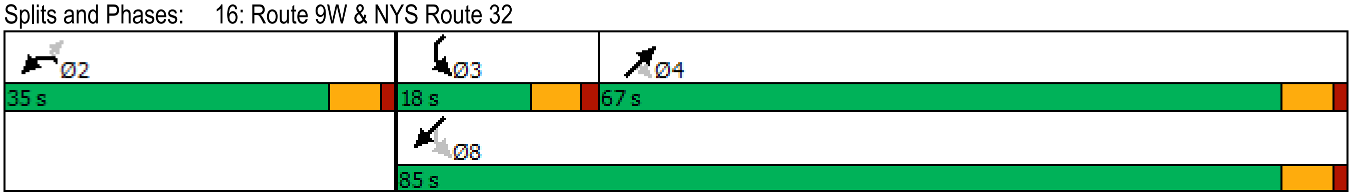
Maximum v/c Ratio: 0.77

Intersection Signal Delay: 22.6 Intersection LOS: C

Intersection Capacity Utilization 65.9% ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Route 9W & NYS Route 32



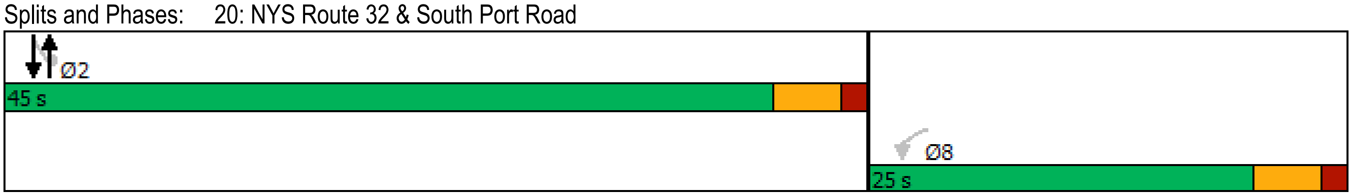
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 71 | 12 | 253 | 13 | 6 | 930 |
| Future Volume (vph) | 71 | 12 | 253 | 13 | 6 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.981 | | 0.993 | | | |
| Flt Protected | 0.959 | | | | | |
| Satd. Flow (prot) | 1653 | 0 | 1714 | 0 | 0 | 1806 |
| Flt Permitted | 0.959 | | | | | 0.998 |
| Satd. Flow (perm) | 1653 | 0 | 1714 | 0 | 0 | 1802 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 12 | | 6 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 8% | 9% | 8% | 50% | 40% | 5% |
| Adj. Flow (vph) | 84 | 14 | 351 | 18 | 6 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 98 | 0 | 369 | 0 | 0 | 995 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 8.9 | | 51.1 | | | 51.1 |
| Actuated g/C Ratio | 0.13 | | 0.77 | | | 0.77 |
| v/c Ratio | 0.43 | | 0.28 | | | 0.72 |
| Control Delay | 28.8 | | 4.2 | | | 11.1 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 28.8 | | 4.2 | | | 11.1 |
| LOS | C | | A | | | B |
| Approach Delay | 28.8 | | 4.2 | | | 11.1 |
| Approach LOS | C | | A | | | B |
| Queue Length 50th (ft) | 36 | | 42 | | | 203 |
| Queue Length 95th (ft) | 61 | | 64 | | | #541 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 507 | | 1316 | | | 1383 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.19 | | 0.28 | | | 0.72 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66.6
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 10.6 Intersection LOS: B
Intersection Capacity Utilization 66.7% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 6.3 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 66 | 283 | 204 | 128 | 221 | 83 |
| Future Vol, veh/h | 66 | 283 | 204 | 128 | 221 | 83 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 82 | 82 | 74 | 74 | 85 | 85 |
| Heavy Vehicles, % | 12 | 3 | 9 | 8 | 4 | 8 |
| Mvmt Flow | 80 | 345 | 276 | 173 | 260 | 98 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1034 | 309 | 260 | 0 | - | 0 |
| Stage 1 | 309 | - | - | - | - | - |
| Stage 2 | 725 | - | - | - | - | - |
| Critical Hdwy | 6.52 | 6.23 | 4.19 | - | - | - |
| Critical Hdwy Stg 1 | 5.52 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.52 | - | - | - | - | - |
| Follow-up Hdwy | 3.608 | 3.327 | 2.281 | - | - | - |
| Pot Cap-1 Maneuver | 246 | 729 | 1265 | - | - | - |
| Stage 1 | 722 | - | - | - | - | - |
| Stage 2 | 462 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 187 | 729 | 1265 | - | - | - |
| Mov Cap-2 Maneuver | 187 | - | - | - | - | - |
| Stage 1 | 548 | - | - | - | - | - |
| Stage 2 | 462 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 12.6 | 5.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1265 | - | 899 | - | - |
| HCM Lane V/C Ratio | 0.218 | - | 0.473 | - | - |
| HCM Control Delay (s) | 8.6 | 0 | 12.6 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 2.6 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 22 | 202 | 405 | 285 | 59 | 33 |
| Future Vol, veh/h | 22 | 202 | 405 | 285 | 59 | 33 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 77 | 77 | 84 | 84 | 81 | 81 |
| Heavy Vehicles, % | 4 | 0 | 0 | 5 | 5 | 1 |
| Mvmt Flow | 29 | 262 | 482 | 339 | 73 | 41 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 821 | 0 | - | 0 | 972 | 652 |
| Stage 1 | - | - | - | - | 652 | - |
| Stage 2 | - | - | - | - | 320 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.45 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.545 | 3.309 |
| Pot Cap-1 Maneuver | 800 | - | - | - | 277 | 470 |
| Stage 1 | - | - | - | - | 513 | - |
| Stage 2 | - | - | - | - | 729 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 800 | - | - | - | 265 | 470 |
| Mov Cap-2 Maneuver | - | - | - | - | 265 | - |
| Stage 1 | - | - | - | - | 491 | - |
| Stage 2 | - | - | - | - | 729 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0.9 | 0 | 22.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 314 | 800 | - | - | - |
| HCM Lane V/C Ratio | 0.362 | 0.036 | - | - | - |
| HCM Control Delay (s) | 22.8 | 9.7 | 0 | - | - |
| HCM Lane LOS | C | A | A | - | - |
| HCM 95th %tile Q(veh) | 1.6 | 0.1 | - | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 2.1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 30 | 68 | 44 | 235 | 673 | 329 |
| Future Vol, veh/h | 30 | 68 | 44 | 235 | 673 | 329 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 88 | 88 | 91 | 91 |
| Heavy Vehicles, % | 29 | 14 | 10 | 7 | 7 | 2 |
| Mvmt Flow | 33 | 74 | 50 | 267 | 740 | 362 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1288 | 921 | 1102 | 0 | - | 0 |
| Stage 1 | 921 | - | - | - | - | - |
| Stage 2 | 367 | - | - | - | - | - |
| Critical Hdwy | 6.69 | 6.34 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.69 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.69 | - | - | - | - | - |
| Follow-up Hdwy | 3.761 | 3.426 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 159 | 312 | 605 | - | - | - |
| Stage 1 | 348 | - | - | - | - | - |
| Stage 2 | 645 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 144 | 312 | 605 | - | - | - |
| Mov Cap-2 Maneuver | 144 | - | - | - | - | - |
| Stage 1 | 314 | - | - | - | - | - |
| Stage 2 | 645 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 25.3 | 1.8 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 605 | - | 144 | 312 | - | - |
| HCM Lane V/C Ratio | 0.083 | - | 0.226 | 0.237 | - | - |
| HCM Control Delay (s) | 11.5 | 0 | 37.2 | 20.1 | - | - |
| HCM Lane LOS | B | A | E | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0.8 | 0.9 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 3.1 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 60 | 32 | 87 | 96 | 16 | 61 |
| Future Vol, veh/h | 60 | 32 | 87 | 96 | 16 | 61 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 83 | 83 | 84 | 84 | 78 | 78 |
| Heavy Vehicles, % | 26 | 10 | 25 | 13 | 0 | 37 |
| Mvmt Flow | 72 | 39 | 104 | 114 | 21 | 78 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 281 | 161 | 0 | 0 | 218 | 0 |
| Stage 1 | 161 | - | - | - | - | - |
| Stage 2 | 120 | - | - | - | - | - |
| Critical Hdwy | 6.66 | 6.3 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.66 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.66 | - | - | - | - | - |
| Follow-up Hdwy | 3.734 | 3.39 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 661 | 863 | - | - | 1364 | - |
| Stage 1 | 813 | - | - | - | - | - |
| Stage 2 | 849 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 651 | 863 | - | - | 1364 | - |
| Mov Cap-2 Maneuver | 651 | - | - | - | - | - |
| Stage 1 | 813 | - | - | - | - | - |
| Stage 2 | 836 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.6 | 0 | 1.6 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 651 | 863 | 1364 | - |
| HCM Lane V/C Ratio | - | - | 0.111 | 0.045 | 0.015 | - |
| HCM Control Delay (s) | - | - | 11.2 | 9.4 | 7.7 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.1 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 2 | 5 | 192 | 408 | 6 |
| Future Vol, veh/h | 4 | 2 | 5 | 192 | 408 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 30 | 80 | 88 | 63 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 8 | 4 | 17 | 240 | 464 | 10 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 743 | 469 | 474 | 0 | - | 0 |
| Stage 1 | 469 | - | - | - | - | - |
| Stage 2 | 274 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 386 | 598 | 1099 | - | - | - |
| Stage 1 | 634 | - | - | - | - | - |
| Stage 2 | 777 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 379 | 598 | 1099 | - | - | - |
| Mov Cap-2 Maneuver | 379 | - | - | - | - | - |
| Stage 1 | 623 | - | - | - | - | - |
| Stage 2 | 777 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.6 | 0.5 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1099 | - | 432 | - | - |
| HCM Lane V/C Ratio | 0.015 | - | 0.028 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 13.6 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

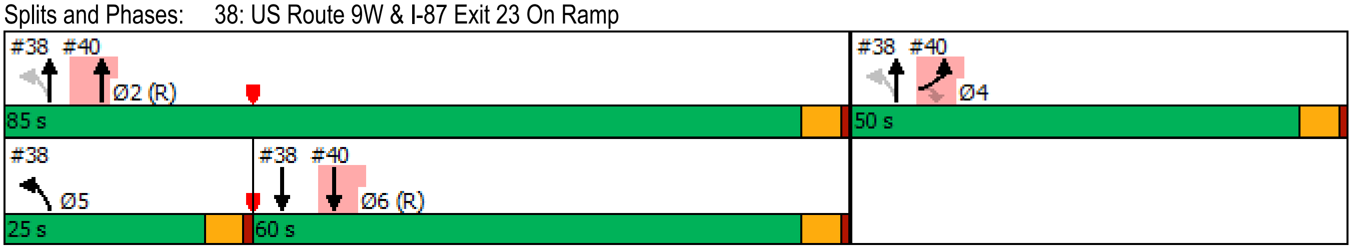
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 379 | 466 | 1238 | 559 | | |
| Future Volume (vph) | 0 | 0 | 379 | 466 | 1238 | 559 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.953 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1770 | 1863 | 3373 | 0 | | |
| Flt Permitted | | | 0.043 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 80 | 1863 | 3373 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 65 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 314 | | | 227 | 306 | | | |
| Travel Time (s) | 7.1 | | | 5.2 | 7.0 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.93 | 0.93 | 0.97 | 0.97 | | |
| Adj. Flow (vph) | 0 | 0 | 408 | 501 | 1276 | 576 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 408 | 501 | 1852 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 56.2 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.42 | | | |
| v/c Ratio | | | 0.74 | 0.27 | 1.29 | | | |
| Control Delay | | | 37.6 | 0.4 | 166.7 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Queue Delay | | | 28.6 | 0.0 | 0.1 | | | |
| Total Delay | | | 66.2 | 0.4 | 166.8 | | | |
| LOS | | | E | A | F | | | |
| Approach Delay | | | | 30.0 | 166.8 | | | |
| Approach LOS | | | | C | F | | | |
| Queue Length 50th (ft) | | | 287 | 1 | ~1055 | | | |
| Queue Length 95th (ft) | | | #511 | 3 | #1224 | | | |
| Internal Link Dist (ft) | 234 | | | 147 | 226 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 552 | 1863 | 1441 | | | |
| Starvation Cap Reductn | | | 154 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 23 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 1.03 | 0.27 | 1.31 | | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 121.7 Intersection LOS: F
Intersection Capacity Utilization 104.0% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: US Route 9W & I-87 Exit 23 On Ramp



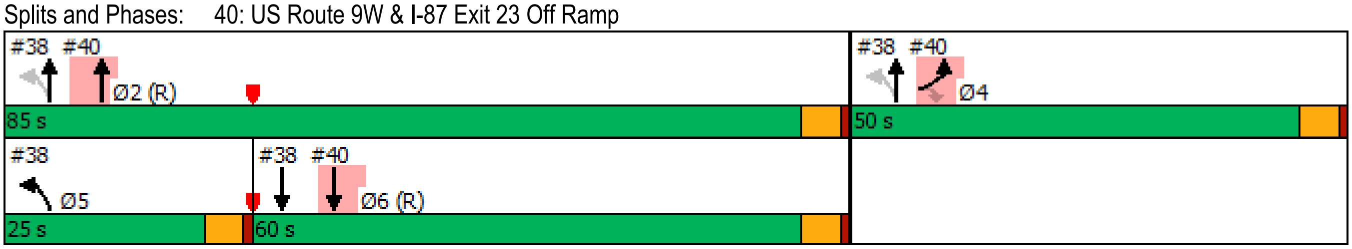
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 196 | 347 | 0 | 649 | 1238 | 0 | |
| Future Volume (vph) | 196 | 347 | 0 | 649 | 1238 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 301 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 298 | | | 384 | 227 | | |
| Travel Time (s) | 6.8 | | | 8.7 | 5.2 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.89 | 0.89 | 0.95 | 0.95 | |
| Adj. Flow (vph) | 202 | 358 | 0 | 729 | 1303 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 202 | 358 | 0 | 729 | 1303 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 25.8 | 25.8 | | 99.2 | 56.2 | | |
| Actuated g/C Ratio | 0.19 | 0.19 | | 0.73 | 0.42 | | |
| v/c Ratio | 0.60 | 0.66 | | 0.28 | 0.88 | | |
| Control Delay | 55.9 | 14.6 | | 7.1 | 10.4 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Queue Delay | 0.7 | 0.0 | | 0.0 | 47.3 | | |
| Total Delay | 56.6 | 14.6 | | 7.1 | 57.7 | | |
| LOS | E | B | | A | E | | |
| Approach Delay | 29.7 | | | 7.1 | 57.7 | | |
| Approach LOS | C | | | A | E | | |
| Queue Length 50th (ft) | 164 | 43 | | 98 | 77 | | |
| Queue Length 95th (ft) | 222 | 133 | | 168 | m64 | | |
| Internal Link Dist (ft) | 218 | | | 304 | 147 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 590 | 728 | | 2599 | 1473 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 401 | | |
| Spillback Cap Reductn | 164 | 0 | | 110 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.47 | 0.49 | | 0.29 | 1.22 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.29 | |
| Intersection Signal Delay: 37.4 | Intersection LOS: D |
| Intersection Capacity Utilization 104.0% | ICU Level of Service G |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 0 | 1 | 211 | 400 | 60 |
| Future Vol, veh/h | 11 | 0 | 1 | 211 | 400 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 46 | 46 | 89 | 89 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 24 | 0 | 1 | 237 | 440 | 66 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 712 | 473 | 506 | 0 | - | 0 |
| Stage 1 | 473 | - | - | - | - | - |
| Stage 2 | 239 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 402 | 595 | 1069 | - | - | - |
| Stage 1 | 631 | - | - | - | - | - |
| Stage 2 | 805 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 402 | 595 | 1069 | - | - | - |
| Mov Cap-2 Maneuver | 402 | - | - | - | - | - |
| Stage 1 | 630 | - | - | - | - | - |
| Stage 2 | 805 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.5 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1069 | - | 402 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.059 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | 14.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 16 | 36 | 209 | 400 | 0 |
| Future Vol, veh/h | 3 | 16 | 36 | 209 | 400 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 88 | 88 | 75 | 75 |
| Heavy Vehicles, % | 3 | 7 | 4 | 0 | 0 | 7 |
| Mvmt Flow | 3 | 18 | 41 | 238 | 533 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 853 | 533 | 533 | 0 | - | 0 |
| Stage 1 | 533 | - | - | - | - | - |
| Stage 2 | 320 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.27 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.363 | 2.236 | - | - | - |
| Pot Cap-1 Maneuver | 328 | 537 | 1025 | - | - | - |
| Stage 1 | 586 | - | - | - | - | - |
| Stage 2 | 734 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 313 | 537 | 1025 | - | - | - |
| Mov Cap-2 Maneuver | 313 | - | - | - | - | - |
| Stage 1 | 559 | - | - | - | - | - |
| Stage 2 | 734 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.8 | 1.3 | 0 |
| HCM LOS | B | | |

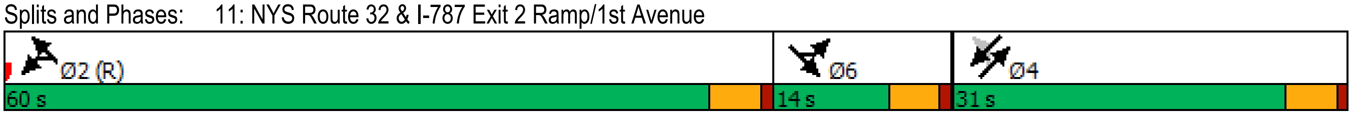
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1025 | - | 482 | - | - |
| HCM Lane V/C Ratio | 0.04 | - | 0.045 | - | - |
| HCM Control Delay (s) | 8.7 | 0 | 12.8 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 30 | 423 | 53 | 90 | 8 | 65 | 0 | 0 | 105 | 4 |
| Future Volume (vph) | 3 | 0 | 30 | 423 | 53 | 90 | 8 | 65 | 0 | 0 | 105 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.88 | | | | | | | | | | |
| Frt | | 0.878 | | | 0.906 | | | | | | 0.995 | |
| Flt Protected | | 0.995 | | 0.950 | | | | 0.994 | | | | |
| Satd. Flow (prot) | 0 | 1380 | 0 | 1444 | 1426 | 0 | 0 | 1644 | 0 | 0 | 1599 | 0 |
| Flt Permitted | | 0.995 | | 0.950 | | | | 0.959 | | | | |
| Satd. Flow (perm) | 0 | 1368 | 0 | 1444 | 1426 | 0 | 0 | 1586 | 0 | 0 | 1599 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 101 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 25% | 0% | 33% | 14% | 15% | 0% | 0% | 18% | 25% |
| Adj. Flow (vph) | 4 | 0 | 37 | 475 | 60 | 101 | 9 | 71 | 0 | 0 | 135 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 41 | 0 | 475 | 161 | 0 | 0 | 80 | 0 | 0 | 140 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 5.7 | | 74.1 | 74.1 | | | 14.4 | | | 14.4 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.05 | | 0.71 | 0.71 | | | 0.14 | | | 0.14 | |
| v/c Ratio | | 0.28 | | 0.47 | 0.16 | | | 0.37 | | | 0.64 | |
| Control Delay | | 8.4 | | 10.5 | 3.5 | | | 44.7 | | | 54.6 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.4 | | 10.5 | 3.5 | | | 44.7 | | | 54.6 | |
| LOS | | A | | B | A | | | D | | | D | |
| Approach Delay | | 8.4 | | | 8.7 | | | 44.7 | | | 54.6 | |
| Approach LOS | | A | | | A | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 142 | 13 | | | 50 | | | 89 | |
| Queue Length 95th (ft) | | 7 | | 262 | 42 | | | 90 | | | 123 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 185 | | 1019 | 1036 | | | 392 | | | 397 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.22 | | 0.47 | 0.16 | | | 0.20 | | | 0.35 | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 105 | |
| Actuated Cycle Length: 105 | |
| Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.64 | |
| Intersection Signal Delay: 19.1 | Intersection LOS: B |
| Intersection Capacity Utilization 48.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



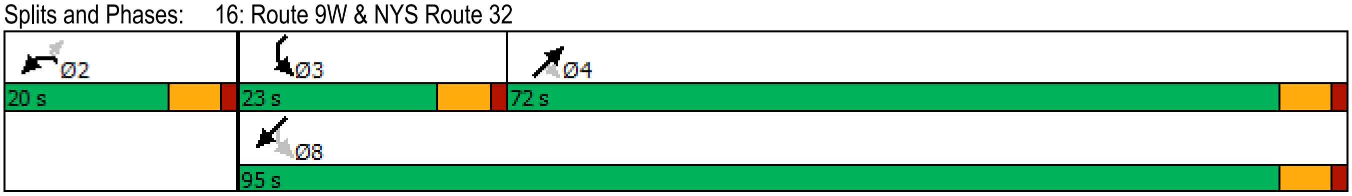
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 95 | 153 | 2035 | 168 | 114 | 821 |
| Future Volume (vph) | 95 | 153 | 2035 | 168 | 114 | 821 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1442 | 3505 | 1482 | 1388 | 3406 |
| Flt Permitted | 0.950 | | | | 0.055 | |
| Satd. Flow (perm) | 1530 | 1442 | 3505 | 1482 | 80 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 176 | | 104 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.87 | 0.87 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 12% | 3% | 9% | 30% | 6% |
| Adj. Flow (vph) | 109 | 176 | 2188 | 181 | 134 | 966 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 109 | 176 | 2188 | 181 | 134 | 966 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 20.0 | 20.0 | 72.0 | 72.0 | 23.0 | 95.0 |
| Total Split (%) | 17.4% | 17.4% | 62.6% | 62.6% | 20.0% | 82.6% |
| Maximum Green (s) | 14.0 | 14.0 | 66.0 | 66.0 | 17.0 | 89.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 14.0 | 14.0 | 66.1 | 66.1 | 83.5 | 83.5 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.60 | 0.60 | 0.76 | 0.76 |
| v/c Ratio | 0.56 | 0.52 | 1.03 | 0.19 | 0.68 | 0.37 |
| Control Delay | 57.7 | 12.8 | 52.1 | 5.2 | 40.6 | 4.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.7 | 12.8 | 52.1 | 5.2 | 40.6 | 4.7 |
| LOS | E | B | D | A | D | A |
| Approach Delay | 30.0 | | 48.5 | | | 9.1 |
| Approach LOS | C | | D | | | A |
| Queue Length 50th (ft) | 73 | 0 | ~870 | 21 | 51 | 98 |
| Queue Length 95th (ft) | 133 | 58 | #1096 | 58 | 107 | 113 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 195 | 338 | 2115 | 935 | 264 | 2771 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.52 | 1.03 | 0.19 | 0.51 | 0.35 |

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 109.5
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 35.6 Intersection LOS: D
Intersection Capacity Utilization 82.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



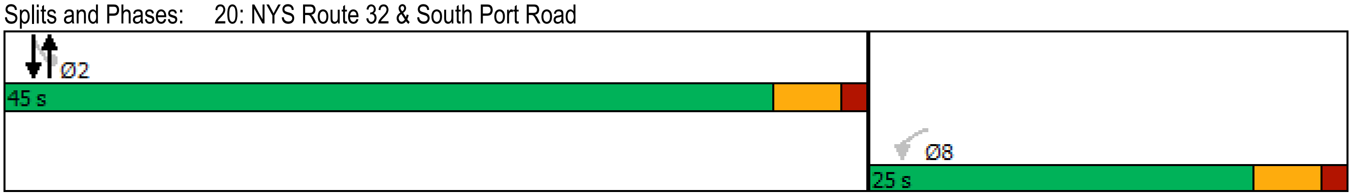
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 24 | 50 | 717 | 51 | 71 | 258 |
| Future Volume (vph) | 24 | 50 | 717 | 51 | 71 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.909 | | 0.991 | | | |
| Flt Protected | 0.984 | | | | | 0.990 |
| Satd. Flow (prot) | 1032 | 0 | 1763 | 0 | 0 | 1501 |
| Flt Permitted | 0.984 | | | | | 0.752 |
| Satd. Flow (perm) | 1032 | 0 | 1763 | 0 | 0 | 1140 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 67 | | 9 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.75 | 0.75 | 0.87 | 0.87 | 0.90 | 0.84 |
| Heavy Vehicles (%) | 60% | 67% | 6% | 18% | 42% | 21% |
| Adj. Flow (vph) | 32 | 67 | 824 | 59 | 79 | 307 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 99 | 0 | 883 | 0 | 0 | 386 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 8.4 | | 51.0 | | | 51.0 |
| Actuated g/C Ratio | 0.13 | | 0.77 | | | 0.77 |
| v/c Ratio | 0.52 | | 0.65 | | | 0.44 |
| Control Delay | 21.5 | | 8.9 | | | 6.4 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 21.5 | | 8.9 | | | 6.4 |
| LOS | C | | A | | | A |
| Approach Delay | 21.5 | | 8.9 | | | 6.4 |
| Approach LOS | C | | A | | | A |
| Queue Length 50th (ft) | 13 | | 142 | | | 48 |
| Queue Length 95th (ft) | 34 | | 337 | | | 118 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 360 | | 1363 | | | 880 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.28 | | 0.65 | | | 0.44 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 66
Natural Cycle: 65
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 6.6 |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 60 | 229 | 325 | 340 | 78 | 129 |
| Future Vol, veh/h | 60 | 229 | 325 | 340 | 78 | 129 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 91 | 91 | 88 | 88 |
| Heavy Vehicles, % | 9 | 20 | 10 | 10 | 18 | 17 |
| Mvmt Flow | 67 | 254 | 357 | 374 | 89 | 147 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1251 | 163 | 89 | 0 | - | 0 |
| Stage 1 | 163 | - | - | - | - | - |
| Stage 2 | 1088 | - | - | - | - | - |
| Critical Hdwy | 6.49 | 6.4 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.49 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.49 | - | - | - | - | - |
| Follow-up Hdwy | 3.581 | 3.48 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 184 | 837 | 1457 | - | - | - |
| Stage 1 | 849 | - | - | - | - | - |
| Stage 2 | 313 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 127 | 837 | 1457 | - | - | - |
| Mov Cap-2 Maneuver | 127 | - | - | - | - | - |
| Stage 1 | 587 | - | - | - | - | - |
| Stage 2 | 313 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 17.2 | 4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1457 | - | 612 | - | - |
| HCM Lane V/C Ratio | 0.245 | - | 0.525 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 17.2 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 3.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 11.3 | | | | | |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 21 | 543 | 197 | 62 | 170 | 20 |
| Future Vol, veh/h | 21 | 543 | 197 | 62 | 170 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 84 | 84 | 81 | 81 | 83 | 83 |
| Heavy Vehicles, % | 3 | 0 | 22 | 10 | 12 | 11 |
| Mvmt Flow | 25 | 646 | 243 | 77 | 205 | 24 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 320 | 0 | - | 0 | 978 | 282 |
| Stage 1 | - | - | - | - | 282 | - |
| Stage 2 | - | - | - | - | 696 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.52 | 6.31 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.52 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.608 | 3.399 |
| Pot Cap-1 Maneuver | 1234 | - | - | - | 266 | 736 |
| Stage 1 | - | - | - | - | 743 | - |
| Stage 2 | - | - | - | - | 477 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1234 | - | - | - | 257 | 736 |
| Mov Cap-2 Maneuver | - | - | - | - | 257 | - |
| Stage 1 | - | - | - | - | 719 | - |
| Stage 2 | - | - | - | - | 477 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 59.3 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 276 | 1234 | - | - | - |
| HCM Lane V/C Ratio | 0.829 | 0.02 | - | - | - |
| HCM Control Delay (s) | 59.3 | 8 | 0 | - | - |
| HCM Lane LOS | F | A | A | - | - |
| HCM 95th %tile Q(veh) | 6.8 | 0.1 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 115 | 51 | 57 | 654 | 224 | 59 |
| Future Vol, veh/h | 115 | 51 | 57 | 654 | 224 | 59 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 86 | 86 | 90 | 90 |
| Heavy Vehicles, % | 13 | 28 | 20 | 9 | 23 | 28 |
| Mvmt Flow | 132 | 59 | 66 | 760 | 249 | 66 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1174 | 282 | 315 | 0 | - | 0 |
| Stage 1 | 282 | - | - | - | - | - |
| Stage 2 | 892 | - | - | - | - | - |
| Critical Hdwy | 6.53 | 6.48 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.53 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.53 | - | - | - | - | - |
| Follow-up Hdwy | 3.617 | 3.552 | 2.38 | - | - | - |
| Pot Cap-1 Maneuver | 202 | 699 | 1150 | - | - | - |
| Stage 1 | 741 | - | - | - | - | - |
| Stage 2 | 383 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 182 | 699 | 1150 | - | - | - |
| Mov Cap-2 Maneuver | 182 | - | - | - | - | - |
| Stage 1 | 668 | - | - | - | - | - |
| Stage 2 | 383 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 47.9 | 0.7 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1150 | - | 182 | 699 | - | - |
| HCM Lane V/C Ratio | 0.058 | - | 0.726 | 0.084 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 64.5 | 10.6 | - | - |
| HCM Lane LOS | A | A | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 4.6 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 123 | 7 | 45 | 47 | 43 | 56 |
| Future Vol, veh/h | 123 | 7 | 45 | 47 | 43 | 56 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 65 | 65 | 84 | 84 | 62 | 62 |
| Heavy Vehicles, % | 25 | 17 | 42 | 42 | 0 | 25 |
| Mvmt Flow | 189 | 11 | 54 | 56 | 69 | 90 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 310 | 82 | 0 | 0 | 110 | 0 |
| Stage 1 | 82 | - | - | - | - | - |
| Stage 2 | 228 | - | - | - | - | - |
| Critical Hdwy | 6.65 | 6.37 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.65 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.65 | - | - | - | - | - |
| Follow-up Hdwy | 3.725 | 3.453 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 637 | 938 | - | - | 1493 | - |
| Stage 1 | 886 | - | - | - | - | - |
| Stage 2 | 759 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 608 | 938 | - | - | 1493 | - |
| Mov Cap-2 Maneuver | 608 | - | - | - | - | - |
| Stage 1 | 886 | - | - | - | - | - |
| Stage 2 | 724 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.3 | 0 | 3.3 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 608 | 938 | 1493 | - |
| HCM Lane V/C Ratio | - | - | 0.311 | 0.011 | 0.046 | - |
| HCM Control Delay (s) | - | - | 13.6 | 8.9 | 7.5 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 1.3 | 0 | 0.1 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.5 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 14 | 3 | 481 | 182 | 2 |
| Future Vol, veh/h | 7 | 14 | 3 | 481 | 182 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 42 | 81 | 75 | 72 | 93 | 25 |
| Heavy Vehicles, % | 0 | 8 | 0 | 8 | 20 | 0 |
| Mvmt Flow | 17 | 17 | 4 | 668 | 196 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 876 | 200 | 204 | 0 | - | 0 |
| Stage 1 | 200 | - | - | - | - | - |
| Stage 2 | 676 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.28 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.372 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 322 | 826 | 1380 | - | - | - |
| Stage 1 | 838 | - | - | - | - | - |
| Stage 2 | 509 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 320 | 826 | 1380 | - | - | - |
| Mov Cap-2 Maneuver | 320 | - | - | - | - | - |
| Stage 1 | 834 | - | - | - | - | - |
| Stage 2 | 509 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.4 | 0 | 0 |
| HCM LOS | B | | |

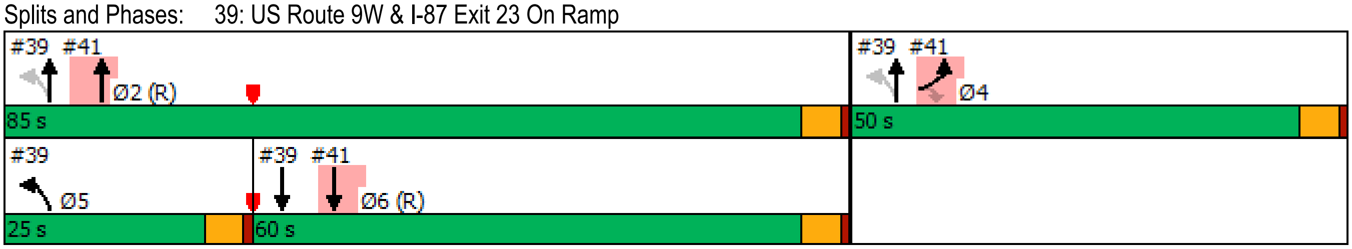
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1380 | - | 465 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.073 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 13.4 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 346 | 805 | 650 | 214 | | |
| Future Volume (vph) | 0 | 0 | 346 | 805 | 650 | 214 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.963 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1656 | 1863 | 3318 | 0 | | |
| Flt Permitted | | | 0.242 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 422 | 1863 | 3318 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 40 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 346 | | | 240 | 257 | | | |
| Travel Time (s) | 7.9 | | | 5.5 | 5.8 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.89 | 0.89 | 0.93 | 0.93 | | |
| Heavy Vehicles (%) | 2% | 2% | 9% | 2% | 6% | 1% | | |
| Adj. Flow (vph) | 0 | 0 | 389 | 904 | 699 | 230 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 389 | 904 | 929 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 65.7 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.49 | | | |
| v/c Ratio | | | 0.79 | 0.49 | 0.57 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Control Delay | | | 15.5 | 1.3 | 25.9 | | | |
| Queue Delay | | | 0.4 | 0.0 | 0.0 | | | |
| Total Delay | | | 15.9 | 1.3 | 25.9 | | | |
| LOS | | | B | A | C | | | |
| Approach Delay | | | | 5.7 | 25.9 | | | |
| Approach LOS | | | | A | C | | | |
| Queue Length 50th (ft) | | | 58 | 42 | 267 | | | |
| Queue Length 95th (ft) | | | m68 | m20 | 404 | | | |
| Internal Link Dist (ft) | 266 | | | 160 | 177 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 589 | 1863 | 1635 | | | |
| Starvation Cap Reductn | | | 28 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 0 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 0.69 | 0.49 | 0.57 | | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.00 | |
| Intersection Signal Delay: 14.1 | Intersection LOS: B |
| Intersection Capacity Utilization 83.0% | ICU Level of Service E |
| Analysis Period (min) 15 | |
| m Volume for 95th percentile queue is metered by upstream signal. | |

Splits and Phases: 39: US Route 9W & I-87 Exit 23 On Ramp



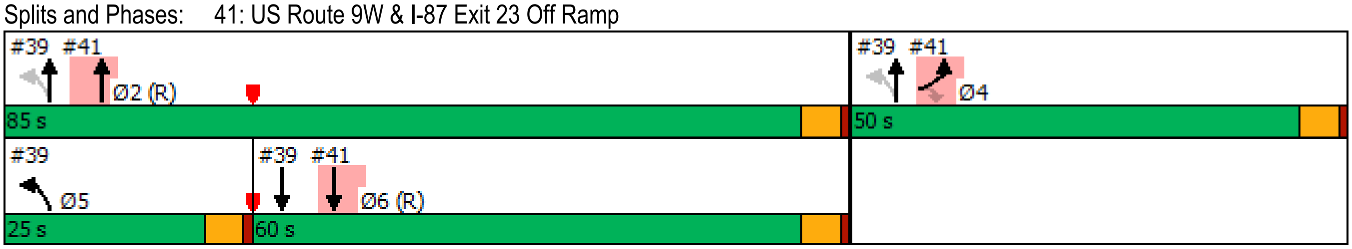
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 500 | 307 | 0 | 651 | 650 | 0 | |
| Future Volume (vph) | 500 | 307 | 0 | 651 | 650 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 270 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 284 | | | 365 | 240 | | |
| Travel Time (s) | 6.5 | | | 8.3 | 5.5 | | |
| Peak Hour Factor | 0.83 | 0.83 | 0.86 | 0.86 | 0.98 | 0.98 | |
| Heavy Vehicles (%) | 0% | 3% | 0% | 2% | 0% | 0% | |
| Adj. Flow (vph) | 602 | 370 | 0 | 757 | 663 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 602 | 370 | 0 | 757 | 663 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 45.0 | 45.0 | | 80.0 | 65.7 | | |
| Actuated g/C Ratio | 0.33 | 0.33 | | 0.59 | 0.49 | | |
| v/c Ratio | 1.00 | 0.53 | | 0.36 | 0.38 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Control Delay | 82.0 | 12.6 | | 14.9 | 4.0 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.3 | | |
| Total Delay | 82.0 | 12.6 | | 14.9 | 4.2 | | |
| LOS | F | B | | B | A | | |
| Approach Delay | 55.6 | | | 14.9 | 4.2 | | |
| Approach LOS | E | | | B | A | | |
| Queue Length 50th (ft) | ~528 | 62 | | 172 | 19 | | |
| Queue Length 95th (ft) | #676 | 124 | | 201 | 23 | | |
| Internal Link Dist (ft) | 204 | | | 285 | 160 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 601 | 702 | | 2097 | 1757 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 479 | | |
| Spillback Cap Reductn | 0 | 0 | | 4 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.00 | 0.53 | | 0.36 | 0.52 | | |

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 28.5 Intersection LOS: C
Intersection Capacity Utilization 83.0% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 41: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.2 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 40 | 1 | 1 | 492 | 140 | 19 |
| Future Vol, veh/h | 40 | 1 | 1 | 492 | 140 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 65 | 65 | 83 | 83 | 77 | 77 |
| Heavy Vehicles, % | 3 | 0 | 0 | 5 | 12 | 6 |
| Mvmt Flow | 62 | 2 | 1 | 593 | 182 | 25 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 790 | 195 | 207 | 0 | - | 0 |
| Stage 1 | 195 | - | - | - | - | - |
| Stage 2 | 595 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 358 | 851 | 1376 | - | - | - |
| Stage 1 | 836 | - | - | - | - | - |
| Stage 2 | 549 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 358 | 851 | 1376 | - | - | - |
| Mov Cap-2 Maneuver | 358 | - | - | - | - | - |
| Stage 1 | 835 | - | - | - | - | - |
| Stage 2 | 549 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 17 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1376 | - | 363 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.174 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 17 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.6 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 46 | 24 | 487 | 141 | 0 |
| Future Vol, veh/h | 6 | 46 | 24 | 487 | 141 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 80 | 80 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 4 | 5 | 12 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 58 | 29 | 587 | 170 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 815 | 170 | 170 | 0 | - | 0 |
| Stage 1 | 170 | - | - | - | - | - |
| Stage 2 | 645 | - | - | - | - | - |
| Critical Hdwy | 6.44 | 6.25 | 4.22 | - | - | - |
| Critical Hdwy Stg 1 | 5.44 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.44 | - | - | - | - | - |
| Follow-up Hdwy | 3.536 | 3.345 | 2.308 | - | - | - |
| Pot Cap-1 Maneuver | 344 | 866 | 1349 | - | - | - |
| Stage 1 | 855 | - | - | - | - | - |
| Stage 2 | 519 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 333 | 866 | 1349 | - | - | - |
| Mov Cap-2 Maneuver | 333 | - | - | - | - | - |
| Stage 1 | 828 | - | - | - | - | - |
| Stage 2 | 519 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.4 | 0.4 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1349 | - | 731 | - | - |
| HCM Lane V/C Ratio | 0.021 | - | 0.089 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | 10.4 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.3 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 4 | 479 | 9 | 6 | 210 |
| Future Vol, veh/h | 6 | 4 | 479 | 9 | 6 | 210 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 80 | 80 | 92 | 92 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 5 | 521 | 10 | 7 | 247 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 787 | 526 | 0 | 0 | 531 | 0 |
| Stage 1 | 526 | - | - | - | - | - |
| Stage 2 | 261 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 360 | 552 | - | - | 1036 | - |
| Stage 1 | 593 | - | - | - | - | - |
| Stage 2 | 783 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 357 | 552 | - | - | 1036 | - |
| Mov Cap-2 Maneuver | 357 | - | - | - | - | - |
| Stage 1 | 593 | - | - | - | - | - |
| Stage 2 | 777 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.9 | 0 | 0.2 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 416 | 1036 | - |
| HCM Lane V/C Ratio | - | - | 0.03 | 0.007 | - |
| HCM Control Delay (s) | - | - | 13.9 | 8.5 | 0 |
| HCM Lane LOS | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 | - |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 0 | 47 | 894 | 101 | 60 | 6 | 69 | 0 | 0 | 206 | 9 |
| Future Volume (vph) | 2 | 0 | 47 | 894 | 101 | 60 | 6 | 69 | 0 | 0 | 206 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.87 | | | | | | | | | | |
| Frt | | 0.871 | | | 0.944 | | | | | | 0.994 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.996 | | | | |
| Satd. Flow (prot) | 0 | 1358 | 0 | 1719 | 1754 | 0 | 0 | 1690 | 0 | 0 | 1715 | 0 |
| Flt Permitted | | 0.998 | | 0.950 | | | | 0.970 | | | | |
| Satd. Flow (perm) | 0 | 1353 | 0 | 1719 | 1754 | 0 | 0 | 1646 | 0 | 0 | 1715 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 43 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 5% | 0% | 6% | 0% | 13% | 0% | 0% | 10% | 13% |
| Adj. Flow (vph) | 3 | 0 | 64 | 993 | 112 | 67 | 7 | 83 | 0 | 0 | 224 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 67 | 0 | 993 | 179 | 0 | 0 | 90 | 0 | 0 | 234 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 6.5 | | 66.3 | 66.3 | | | 19.3 | | | 19.3 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.06 | | 0.63 | 0.63 | | | 0.18 | | | 0.18 | |
| v/c Ratio | | 0.44 | | 0.92 | 0.16 | | | 0.30 | | | 0.74 | |
| Control Delay | | 19.1 | | 34.2 | 8.1 | | | 37.9 | | | 53.6 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 19.1 | | 34.2 | 8.1 | | | 37.9 | | | 53.6 | |
| LOS | | B | | C | A | | | D | | | D | |
| Approach Delay | | 19.1 | | | 30.2 | | | 37.9 | | | 53.6 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 554 | 35 | | | 53 | | | 149 | |
| Queue Length 95th (ft) | | 22 | | #1006 | 83 | | | 84 | | | 216 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 183 | | 1084 | 1122 | | | 407 | | | 426 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.37 | | 0.92 | 0.16 | | | 0.22 | | | 0.55 | |

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

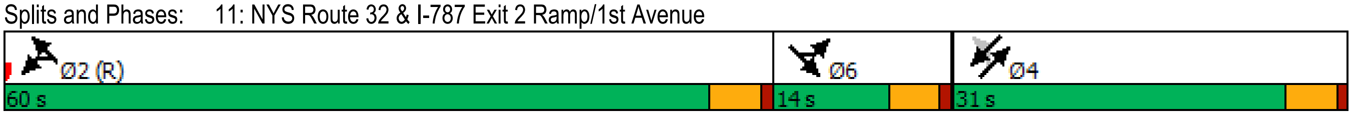
Intersection Signal Delay: 33.7 Intersection LOS: C

Intersection Capacity Utilization 75.9% ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 295 | 115 | 1081 | 94 | 95 | 1439 |
| Future Volume (vph) | 295 | 115 | 1081 | 94 | 95 | 1439 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1719 | 1455 | 3471 | 1509 | 1583 | 3539 |
| Flt Permitted | 0.950 | | | | 0.096 | |
| Satd. Flow (perm) | 1719 | 1455 | 3471 | 1509 | 160 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 62 | | 91 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 11% | 4% | 7% | 14% | 2% |
| Adj. Flow (vph) | 324 | 126 | 1188 | 103 | 101 | 1531 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 324 | 126 | 1188 | 103 | 101 | 1531 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 35.0 | 35.0 | 67.0 | 67.0 | 18.0 | 85.0 |
| Total Split (%) | 29.2% | 29.2% | 55.8% | 55.8% | 15.0% | 70.8% |
| Maximum Green (s) | 29.0 | 29.0 | 61.0 | 61.0 | 12.0 | 79.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 29.6 | 29.6 | 42.6 | 42.6 | 53.8 | 53.8 |
| Actuated g/C Ratio | 0.31 | 0.31 | 0.45 | 0.45 | 0.56 | 0.56 |
| v/c Ratio | 0.61 | 0.26 | 0.77 | 0.14 | 0.48 | 0.77 |
| Control Delay | 37.2 | 17.8 | 26.6 | 4.8 | 17.6 | 18.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.2 | 17.8 | 26.6 | 4.8 | 17.6 | 18.5 |
| LOS | D | B | C | A | B | B |
| Approach Delay | 31.7 | | 24.9 | | | 18.4 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 168 | 28 | 325 | 4 | 26 | 345 |
| Queue Length 95th (ft) | #330 | 90 | 418 | 33 | 55 | 420 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 531 | 492 | 2258 | 1013 | 271 | 2947 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.61 | 0.26 | 0.53 | 0.10 | 0.37 | 0.52 |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 95.6

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.77

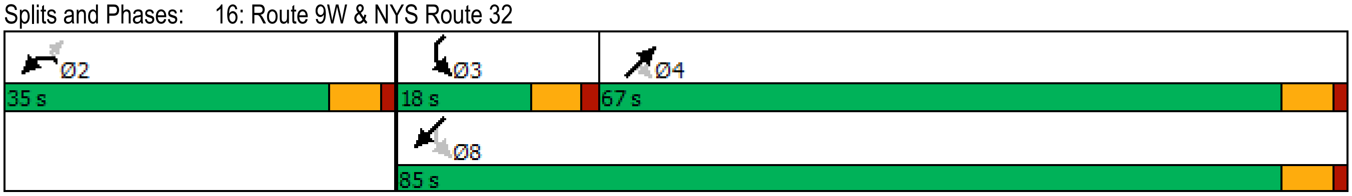
Intersection Signal Delay: 22.7 Intersection LOS: C

Intersection Capacity Utilization 66.5% ICU Level of Service C

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



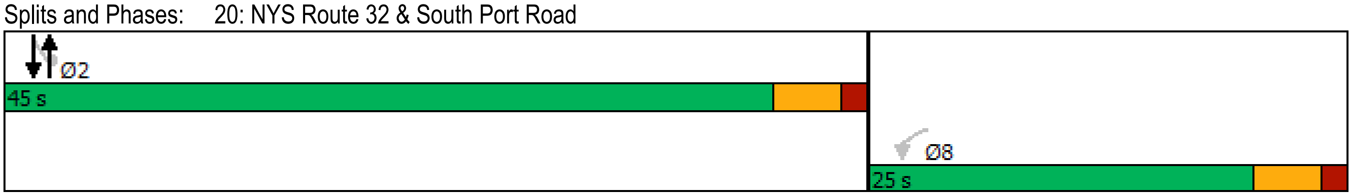
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 86 | 54 | 253 | 21 | 26 | 930 |
| Future Volume (vph) | 86 | 54 | 253 | 21 | 26 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.948 | | 0.990 | | | |
| Flt Protected | 0.970 | | | | | 0.999 |
| Satd. Flow (prot) | 1612 | 0 | 1691 | 0 | 0 | 1791 |
| Flt Permitted | 0.970 | | | | | 0.985 |
| Satd. Flow (perm) | 1612 | 0 | 1691 | 0 | 0 | 1766 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 46 | | 10 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 8% | 9% | 8% | 50% | 40% | 5% |
| Adj. Flow (vph) | 101 | 64 | 351 | 29 | 28 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 165 | 0 | 380 | 0 | 0 | 1017 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 10.2 | | 45.1 | | | 45.1 |
| Actuated g/C Ratio | 0.16 | | 0.69 | | | 0.69 |
| v/c Ratio | 0.57 | | 0.32 | | | 0.83 |
| Control Delay | 24.9 | | 5.5 | | | 17.4 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 24.9 | | 5.5 | | | 17.4 |
| LOS | C | | A | | | B |
| Approach Delay | 24.9 | | 5.5 | | | 17.4 |
| Approach LOS | C | | A | | | B |
| Queue Length 50th (ft) | 42 | | 46 | | | 234 |
| Queue Length 95th (ft) | 82 | | 77 | | | #610 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 526 | | 1170 | | | 1218 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.31 | | 0.32 | | | 0.83 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 65.3
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 85.5% ICU Level of Service E
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 6.3 |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 283 | 204 | 132 | 229 | 85 |
| Future Vol, veh/h | 67 | 283 | 204 | 132 | 229 | 85 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 82 | 82 | 74 | 74 | 85 | 85 |
| Heavy Vehicles, % | 12 | 3 | 9 | 8 | 4 | 8 |
| Mvmt Flow | 82 | 345 | 276 | 178 | 269 | 100 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1049 | 319 | 269 | 0 | - | 0 |
| Stage 1 | 319 | - | - | - | - | - |
| Stage 2 | 730 | - | - | - | - | - |
| Critical Hdwy | 6.52 | 6.23 | 4.19 | - | - | - |
| Critical Hdwy Stg 1 | 5.52 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.52 | - | - | - | - | - |
| Follow-up Hdwy | 3.608 | 3.327 | 2.281 | - | - | - |
| Pot Cap-1 Maneuver | 241 | 719 | 1255 | - | - | - |
| Stage 1 | 715 | - | - | - | - | - |
| Stage 2 | 459 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 182 | 719 | 1255 | - | - | - |
| Mov Cap-2 Maneuver | 182 | - | - | - | - | - |
| Stage 1 | 541 | - | - | - | - | - |
| Stage 2 | 459 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 12.7 | 5.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1255 | - | 889 | - | - |
| HCM Lane V/C Ratio | 0.22 | - | 0.48 | - | - |
| HCM Control Delay (s) | 8.7 | 0 | 12.7 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 2.6 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 206 | 406 | 285 | 59 | 35 |
| Future Vol, veh/h | 26 | 206 | 406 | 285 | 59 | 35 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 77 | 77 | 84 | 84 | 81 | 81 |
| Heavy Vehicles, % | 4 | 0 | 0 | 5 | 5 | 1 |
| Mvmt Flow | 34 | 268 | 483 | 339 | 73 | 43 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 822 | 0 | - | 0 | 989 | 653 |
| Stage 1 | - | - | - | - | 653 | - |
| Stage 2 | - | - | - | - | 336 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.45 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.545 | 3.309 |
| Pot Cap-1 Maneuver | 799 | - | - | - | 270 | 469 |
| Stage 1 | - | - | - | - | 512 | - |
| Stage 2 | - | - | - | - | 717 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 799 | - | - | - | 257 | 469 |
| Mov Cap-2 Maneuver | - | - | - | - | 257 | - |
| Stage 1 | - | - | - | - | 486 | - |
| Stage 2 | - | - | - | - | 717 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 1.1 | 0 | 23.5 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 309 | 799 | - | - | - |
| HCM Lane V/C Ratio | 0.376 | 0.042 | - | - | - |
| HCM Control Delay (s) | 23.5 | 9.7 | 0 | - | - |
| HCM Lane LOS | C | A | A | - | - |
| HCM 95th %tile Q(veh) | 1.7 | 0.1 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 37 | 70 | 48 | 235 | 673 | 344 |
| Future Vol, veh/h | 37 | 70 | 48 | 235 | 673 | 344 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 88 | 88 | 91 | 91 |
| Heavy Vehicles, % | 29 | 14 | 10 | 7 | 7 | 2 |
| Mvmt Flow | 40 | 76 | 55 | 267 | 740 | 378 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1306 | 929 | 1118 | 0 | - | 0 |
| Stage 1 | 929 | - | - | - | - | - |
| Stage 2 | 377 | - | - | - | - | - |
| Critical Hdwy | 6.69 | 6.34 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.69 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.69 | - | - | - | - | - |
| Follow-up Hdwy | 3.761 | 3.426 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 155 | 308 | 596 | - | - | - |
| Stage 1 | 344 | - | - | - | - | - |
| Stage 2 | 638 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 138 | 308 | 596 | - | - | - |
| Mov Cap-2 Maneuver | 138 | - | - | - | - | - |
| Stage 1 | 307 | - | - | - | - | - |
| Stage 2 | 638 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 27.8 | 2 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 596 | - | 138 | 308 | - | - |
| HCM Lane V/C Ratio | 0.092 | - | 0.291 | 0.247 | - | - |
| HCM Control Delay (s) | 11.6 | 0 | 41.5 | 20.5 | - | - |
| HCM Lane LOS | B | A | E | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 1.1 | 1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 3.2 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 32 | 92 | 110 | 16 | 63 |
| Future Vol, veh/h | 67 | 32 | 92 | 110 | 16 | 63 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 83 | 83 | 84 | 84 | 78 | 78 |
| Heavy Vehicles, % | 26 | 10 | 25 | 13 | 0 | 37 |
| Mvmt Flow | 81 | 39 | 110 | 131 | 21 | 81 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 299 | 176 | 0 | 0 | 241 | 0 |
| Stage 1 | 176 | - | - | - | - | - |
| Stage 2 | 123 | - | - | - | - | - |
| Critical Hdwy | 6.66 | 6.3 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.66 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.66 | - | - | - | - | - |
| Follow-up Hdwy | 3.734 | 3.39 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 645 | 847 | - | - | 1337 | - |
| Stage 1 | 800 | - | - | - | - | - |
| Stage 2 | 846 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 635 | 847 | - | - | 1337 | - |
| Mov Cap-2 Maneuver | 635 | - | - | - | - | - |
| Stage 1 | 800 | - | - | - | - | - |
| Stage 2 | 832 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.9 | 0 | 1.6 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 635 | 847 | 1337 | - |
| HCM Lane V/C Ratio | - | - | 0.127 | 0.046 | 0.015 | - |
| HCM Control Delay (s) | - | - | 11.5 | 9.5 | 7.7 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.1 | 0 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.5 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 2 | 6 | 196 | 417 | 7 |
| Future Vol, veh/h | 5 | 2 | 6 | 196 | 417 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 31 | 80 | 88 | 63 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 10 | 4 | 19 | 245 | 474 | 11 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 763 | 480 | 485 | 0 | - | 0 |
| Stage 1 | 480 | - | - | - | - | - |
| Stage 2 | 283 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 375 | 590 | 1088 | - | - | - |
| Stage 1 | 627 | - | - | - | - | - |
| Stage 2 | 770 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 368 | 590 | 1088 | - | - | - |
| Mov Cap-2 Maneuver | 368 | - | - | - | - | - |
| Stage 1 | 614 | - | - | - | - | - |
| Stage 2 | 770 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14 | 0.6 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1088 | - | 412 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | 0.034 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | 14 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

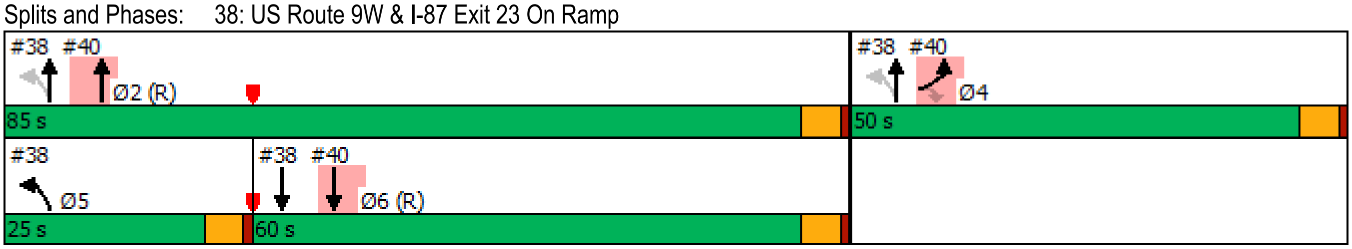
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 390 | 470 | 1239 | 559 | | |
| Future Volume (vph) | 0 | 0 | 390 | 470 | 1239 | 559 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.953 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1770 | 1863 | 3373 | 0 | | |
| Flt Permitted | | | 0.044 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 82 | 1863 | 3373 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 65 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 314 | | | 227 | 306 | | | |
| Travel Time (s) | 7.1 | | | 5.2 | 7.0 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.93 | 0.93 | 0.97 | 0.97 | | |
| Adj. Flow (vph) | 0 | 0 | 419 | 505 | 1277 | 576 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 419 | 505 | 1853 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 55.4 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.41 | | | |
| v/c Ratio | | | 0.74 | 0.27 | 1.30 | | | |
| Control Delay | | | 37.5 | 0.4 | 174.9 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Queue Delay | | | 31.2 | 0.0 | 0.1 | | | |
| Total Delay | | | 68.6 | 0.4 | 175.0 | | | |
| LOS | | | E | A | F | | | |
| Approach Delay | | | | 31.3 | 175.0 | | | |
| Approach LOS | | | | C | F | | | |
| Queue Length 50th (ft) | | | 293 | 1 | ~1077 | | | |
| Queue Length 95th (ft) | | | #530 | 2 | #1225 | | | |
| Internal Link Dist (ft) | 234 | | | 147 | 226 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 563 | 1863 | 1421 | | | |
| Starvation Cap Reductn | | | 158 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 30 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 1.03 | 0.27 | 1.33 | | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.30 | |
| Intersection Signal Delay: 127.2 | Intersection LOS: F |
| Intersection Capacity Utilization 104.8% | ICU Level of Service G |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: US Route 9W & I-87 Exit 23 On Ramp



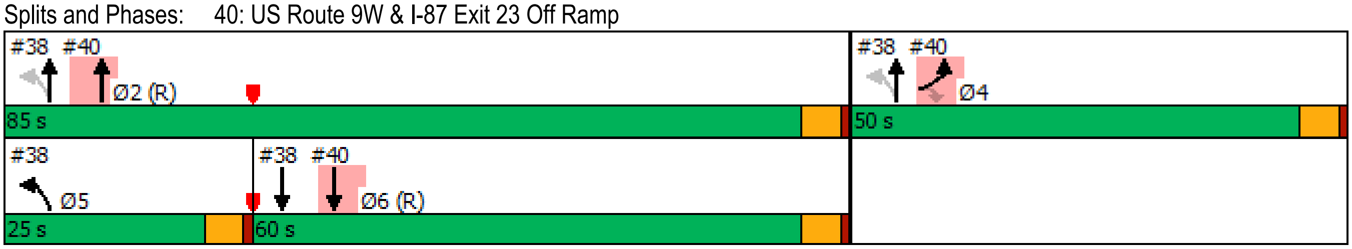
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 196 | 353 | 0 | 664 | 1239 | 0 | |
| Future Volume (vph) | 196 | 353 | 0 | 664 | 1239 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 301 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 298 | | | 384 | 227 | | |
| Travel Time (s) | 6.8 | | | 8.7 | 5.2 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.89 | 0.89 | 0.95 | 0.95 | |
| Adj. Flow (vph) | 202 | 364 | 0 | 746 | 1304 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 202 | 364 | 0 | 746 | 1304 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 25.8 | 25.8 | | 99.2 | 55.4 | | |
| Actuated g/C Ratio | 0.19 | 0.19 | | 0.73 | 0.41 | | |
| v/c Ratio | 0.60 | 0.67 | | 0.29 | 0.90 | | |
| Control Delay | 55.9 | 15.4 | | 7.1 | 10.8 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Queue Delay | 0.7 | 0.0 | | 0.0 | 46.9 | | |
| Total Delay | 56.6 | 15.4 | | 7.1 | 57.7 | | |
| LOS | E | B | | A | E | | |
| Approach Delay | 30.1 | | | 7.1 | 57.7 | | |
| Approach LOS | C | | | A | E | | |
| Queue Length 50th (ft) | 164 | 47 | | 101 | 81 | | |
| Queue Length 95th (ft) | 222 | 139 | | 173 | m63 | | |
| Internal Link Dist (ft) | 218 | | | 304 | 147 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 590 | 728 | | 2599 | 1451 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 391 | | |
| Spillback Cap Reductn | 165 | 0 | | 116 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.48 | 0.50 | | 0.30 | 1.23 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.30 | |
| Intersection Signal Delay: 37.3 | Intersection LOS: D |
| Intersection Capacity Utilization 104.8% | ICU Level of Service G |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 0 | 1 | 220 | 411 | 60 |
| Future Vol, veh/h | 11 | 0 | 1 | 220 | 411 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 46 | 46 | 89 | 89 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 24 | 0 | 1 | 247 | 452 | 66 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 734 | 485 | 518 | 0 | - | 0 |
| Stage 1 | 485 | - | - | - | - | - |
| Stage 2 | 249 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 390 | 586 | 1058 | - | - | - |
| Stage 1 | 623 | - | - | - | - | - |
| Stage 2 | 797 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 390 | 586 | 1058 | - | - | - |
| Mov Cap-2 Maneuver | 390 | - | - | - | - | - |
| Stage 1 | 622 | - | - | - | - | - |
| Stage 2 | 797 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.8 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1058 | - | 390 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.061 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | 14.8 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.7 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 16 | 36 | 218 | 411 | 0 |
| Future Vol, veh/h | 3 | 16 | 36 | 218 | 411 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 88 | 88 | 75 | 75 |
| Heavy Vehicles, % | 3 | 7 | 4 | 0 | 0 | 7 |
| Mvmt Flow | 3 | 18 | 41 | 248 | 548 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 878 | 548 | 548 | 0 | - | 0 |
| Stage 1 | 548 | - | - | - | - | - |
| Stage 2 | 330 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.27 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.363 | 2.236 | - | - | - |
| Pot Cap-1 Maneuver | 317 | 527 | 1011 | - | - | - |
| Stage 1 | 577 | - | - | - | - | - |
| Stage 2 | 726 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 302 | 527 | 1011 | - | - | - |
| Mov Cap-2 Maneuver | 302 | - | - | - | - | - |
| Stage 1 | 550 | - | - | - | - | - |
| Stage 2 | 726 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13 | 1.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1011 | - | 472 | - | - |
| HCM Lane V/C Ratio | 0.04 | - | 0.046 | - | - |
| HCM Control Delay (s) | 8.7 | 0 | 13 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 8 | 195 | 6 | 4 | 438 |
| Future Vol, veh/h | 11 | 8 | 195 | 6 | 4 | 438 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 80 | 80 | 85 | 85 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 10 | 229 | 7 | 4 | 476 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 717 | 233 | 0 | 0 | 236 | 0 |
| Stage 1 | 233 | - | - | - | - | - |
| Stage 2 | 484 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 399 | 811 | - | - | 1331 | - |
| Stage 1 | 810 | - | - | - | - | - |
| Stage 2 | 624 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 397 | 811 | - | - | 1331 | - |
| Mov Cap-2 Maneuver | 397 | - | - | - | - | - |
| Stage 1 | 810 | - | - | - | - | - |
| Stage 2 | 622 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.5 | 0 | 0.1 |
| HCM LOS | B | | |

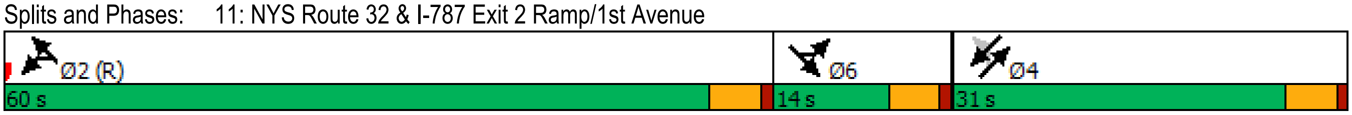
| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 506 | 1331 | - |
| HCM Lane V/C Ratio | - | - | 0.047 | 0.003 | - |
| HCM Control Delay (s) | - | - | 12.5 | 7.7 | 0 |
| HCM Lane LOS | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 | - |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 30 | 450 | 53 | 90 | 8 | 69 | 0 | 0 | 111 | 4 |
| Future Volume (vph) | 3 | 0 | 30 | 450 | 53 | 90 | 8 | 69 | 0 | 0 | 111 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.88 | | | | | | | | | | |
| Frt | | 0.878 | | | 0.906 | | | | | | 0.995 | |
| Flt Protected | | 0.995 | | 0.950 | | | | 0.995 | | | | |
| Satd. Flow (prot) | 0 | 1380 | 0 | 1444 | 1426 | 0 | 0 | 1645 | 0 | 0 | 1599 | 0 |
| Flt Permitted | | 0.995 | | 0.950 | | | | 0.961 | | | | |
| Satd. Flow (perm) | 0 | 1368 | 0 | 1444 | 1426 | 0 | 0 | 1589 | 0 | 0 | 1599 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 101 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 25% | 0% | 33% | 14% | 15% | 0% | 0% | 18% | 25% |
| Adj. Flow (vph) | 4 | 0 | 37 | 506 | 60 | 101 | 9 | 76 | 0 | 0 | 142 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 41 | 0 | 506 | 161 | 0 | 0 | 85 | 0 | 0 | 147 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 5.7 | | 73.7 | 73.7 | | | 14.8 | | | 14.8 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.05 | | 0.70 | 0.70 | | | 0.14 | | | 0.14 | |
| v/c Ratio | | 0.28 | | 0.50 | 0.16 | | | 0.38 | | | 0.65 | |
| Control Delay | | 8.4 | | 11.3 | 3.6 | | | 44.5 | | | 54.7 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.4 | | 11.3 | 3.6 | | | 44.5 | | | 54.7 | |
| LOS | | A | | B | A | | | D | | | D | |
| Approach Delay | | 8.4 | | | 9.5 | | | 44.5 | | | 54.7 | |
| Approach LOS | | A | | | A | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 159 | 13 | | | 53 | | | 93 | |
| Queue Length 95th (ft) | | 7 | | 294 | 43 | | | 95 | | | 127 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 185 | | 1012 | 1030 | | | 393 | | | 397 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.22 | | 0.50 | 0.16 | | | 0.22 | | | 0.37 | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 105 | |
| Actuated Cycle Length: 105 | |
| Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.65 | |
| Intersection Signal Delay: 19.7 | Intersection LOS: B |
| Intersection Capacity Utilization 50.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



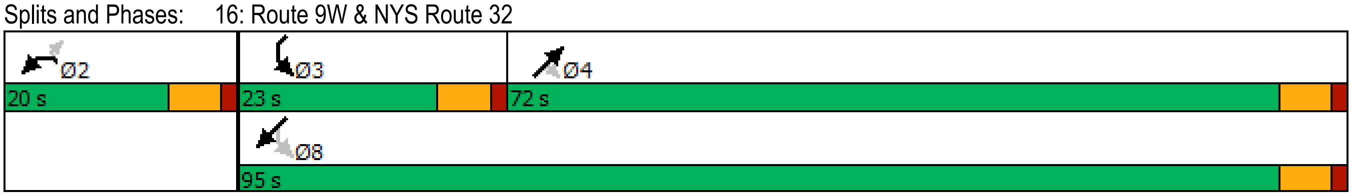
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 97 | 168 | 2035 | 171 | 126 | 821 |
| Future Volume (vph) | 97 | 168 | 2035 | 171 | 126 | 821 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1442 | 3505 | 1482 | 1388 | 3406 |
| Flt Permitted | 0.950 | | | | 0.055 | |
| Satd. Flow (perm) | 1530 | 1442 | 3505 | 1482 | 80 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 193 | | 106 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.87 | 0.87 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 12% | 3% | 9% | 30% | 6% |
| Adj. Flow (vph) | 111 | 193 | 2188 | 184 | 148 | 966 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 111 | 193 | 2188 | 184 | 148 | 966 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 20.0 | 20.0 | 72.0 | 72.0 | 23.0 | 95.0 |
| Total Split (%) | 17.4% | 17.4% | 62.6% | 62.6% | 20.0% | 82.6% |
| Maximum Green (s) | 14.0 | 14.0 | 66.0 | 66.0 | 17.0 | 89.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 14.0 | 14.0 | 66.1 | 66.1 | 84.3 | 84.3 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.60 | 0.60 | 0.76 | 0.76 |
| v/c Ratio | 0.57 | 0.55 | 1.04 | 0.20 | 0.72 | 0.37 |
| Control Delay | 58.9 | 13.0 | 54.9 | 5.3 | 44.8 | 4.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.9 | 13.0 | 54.9 | 5.3 | 44.8 | 4.7 |
| LOS | E | B | D | A | D | A |
| Approach Delay | 29.8 | | 51.0 | | | 10.0 |
| Approach LOS | C | | D | | | B |
| Queue Length 50th (ft) | 75 | 0 | ~888 | 22 | 61 | 98 |
| Queue Length 95th (ft) | 135 | 60 | #1096 | 58 | 121 | 113 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 194 | 351 | 2100 | 930 | 263 | 2752 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.55 | 1.04 | 0.20 | 0.56 | 0.35 |

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 110.3
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 37.3 Intersection LOS: D
Intersection Capacity Utilization 83.6% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



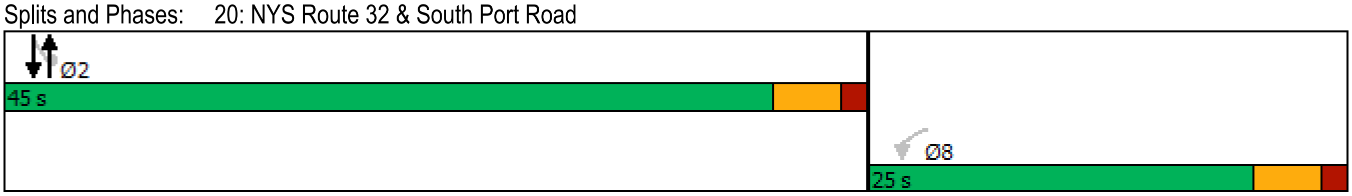
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 32 | 71 | 717 | 64 | 104 | 258 |
| Future Volume (vph) | 32 | 71 | 717 | 64 | 104 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.907 | | 0.989 | | | |
| Flt Protected | 0.985 | | | | | 0.986 |
| Satd. Flow (prot) | 927 | 0 | 1581 | 0 | 0 | 1351 |
| Flt Permitted | 0.985 | | | | | 0.579 |
| Satd. Flow (perm) | 927 | 0 | 1581 | 0 | 0 | 793 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 95 | | 11 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.75 | 0.75 | 0.87 | 0.87 | 0.90 | 0.84 |
| Heavy Vehicles (%) | 60% | 67% | 6% | 18% | 35% | 21% |
| Adj. Flow (vph) | 43 | 95 | 824 | 74 | 116 | 307 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 138 | 0 | 898 | 0 | 0 | 423 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 | 1.14 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 9.7 | | 48.4 | | | 48.4 |
| Actuated g/C Ratio | 0.15 | | 0.75 | | | 0.75 |
| v/c Ratio | 0.63 | | 0.76 | | | 0.71 |
| Control Delay | 22.8 | | 14.7 | | | 18.5 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 22.8 | | 14.7 | | | 18.5 |
| LOS | C | | B | | | B |
| Approach Delay | 22.8 | | 14.7 | | | 18.5 |
| Approach LOS | C | | B | | | B |
| Queue Length 50th (ft) | 16 | | 179 | | | 79 |
| Queue Length 95th (ft) | 40 | | #547 | | | #287 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 352 | | 1184 | | | 592 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.39 | | 0.76 | | | 0.71 |

Intersection Summary

Area Type: CBD
Cycle Length: 70
Actuated Cycle Length: 64.7
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 87.0% ICU Level of Service E
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 6.8 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 62 | 229 | 325 | 346 | 82 | 130 |
| Future Vol, veh/h | 62 | 229 | 325 | 346 | 82 | 130 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 91 | 91 | 88 | 88 |
| Heavy Vehicles, % | 9 | 20 | 10 | 10 | 18 | 17 |
| Mvmt Flow | 69 | 254 | 357 | 380 | 93 | 148 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1261 | 167 | 93 | 0 | - | 0 |
| Stage 1 | 167 | - | - | - | - | - |
| Stage 2 | 1094 | - | - | - | - | - |
| Critical Hdwy | 6.49 | 6.4 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.49 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.49 | - | - | - | - | - |
| Follow-up Hdwy | 3.581 | 3.48 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 182 | 832 | 1453 | - | - | - |
| Stage 1 | 846 | - | - | - | - | - |
| Stage 2 | 311 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 125 | 832 | 1453 | - | - | - |
| Mov Cap-2 Maneuver | 125 | - | - | - | - | - |
| Stage 1 | 583 | - | - | - | - | - |
| Stage 2 | 311 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 18.4 | 4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1453 | - | 587 | - | - |
| HCM Lane V/C Ratio | 0.246 | - | 0.551 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 18.4 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 3.3 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 12 | | | | | |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 545 | 200 | 62 | 170 | 23 |
| Future Vol, veh/h | 23 | 545 | 200 | 62 | 170 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 84 | 84 | 81 | 81 | 83 | 83 |
| Heavy Vehicles, % | 3 | 0 | 22 | 10 | 12 | 11 |
| Mvmt Flow | 27 | 649 | 247 | 77 | 205 | 28 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 324 | 0 | - | 0 | 989 | 286 |
| Stage 1 | - | - | - | - | 286 | - |
| Stage 2 | - | - | - | - | 703 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.52 | 6.31 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.52 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.608 | 3.399 |
| Pot Cap-1 Maneuver | 1230 | - | - | - | 262 | 732 |
| Stage 1 | - | - | - | - | 740 | - |
| Stage 2 | - | - | - | - | 473 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1230 | - | - | - | 253 | 732 |
| Mov Cap-2 Maneuver | - | - | - | - | 253 | - |
| Stage 1 | - | - | - | - | 715 | - |
| Stage 2 | - | - | - | - | 473 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 62.7 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 274 | 1230 | - | - | - |
| HCM Lane V/C Ratio | 0.849 | 0.022 | - | - | - |
| HCM Control Delay (s) | 62.7 | 8 | 0 | - | - |
| HCM Lane LOS | F | A | A | - | - |
| HCM 95th %tile Q(veh) | 7.1 | 0.1 | - | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 9 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 127 | 54 | 59 | 652 | 205 | 66 |
| Future Vol, veh/h | 127 | 54 | 59 | 652 | 205 | 66 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 86 | 86 | 90 | 90 |
| Heavy Vehicles, % | 13 | 28 | 20 | 9 | 23 | 28 |
| Mvmt Flow | 146 | 62 | 69 | 758 | 228 | 73 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1161 | 265 | 301 | 0 | - | 0 |
| Stage 1 | 265 | - | - | - | - | - |
| Stage 2 | 896 | - | - | - | - | - |
| Critical Hdwy | 6.53 | 6.48 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.53 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.53 | - | - | - | - | - |
| Follow-up Hdwy | 3.617 | 3.552 | 2.38 | - | - | - |
| Pot Cap-1 Maneuver | 205 | 715 | 1164 | - | - | - |
| Stage 1 | 755 | - | - | - | - | - |
| Stage 2 | 381 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 184 | 715 | 1164 | - | - | - |
| Mov Cap-2 Maneuver | 184 | - | - | - | - | - |
| Stage 1 | 678 | - | - | - | - | - |
| Stage 2 | 381 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 54.8 | 0.7 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1164 | - | 184 | 715 | - | - |
| HCM Lane V/C Ratio | 0.059 | - | 0.793 | 0.087 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 73.7 | 10.5 | - | - |
| HCM Lane LOS | A | A | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 5.4 | 0.3 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 7 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 134 | 7 | 47 | 54 | 43 | 60 |
| Future Vol, veh/h | 134 | 7 | 47 | 54 | 43 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 65 | 65 | 84 | 84 | 62 | 62 |
| Heavy Vehicles, % | 25 | 17 | 42 | 42 | 0 | 25 |
| Mvmt Flow | 206 | 11 | 56 | 64 | 69 | 97 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 323 | 88 | 0 | 0 | 120 | 0 |
| Stage 1 | 88 | - | - | - | - | - |
| Stage 2 | 235 | - | - | - | - | - |
| Critical Hdwy | 6.65 | 6.37 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.65 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.65 | - | - | - | - | - |
| Follow-up Hdwy | 3.725 | 3.453 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 626 | 930 | - | - | 1480 | - |
| Stage 1 | 881 | - | - | - | - | - |
| Stage 2 | 753 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 597 | 930 | - | - | 1480 | - |
| Mov Cap-2 Maneuver | 597 | - | - | - | - | - |
| Stage 1 | 881 | - | - | - | - | - |
| Stage 2 | 718 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.9 | 0 | 3.2 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 597 | 930 | 1480 | - |
| HCM Lane V/C Ratio | - | - | 0.345 | 0.012 | 0.047 | - |
| HCM Control Delay (s) | - | - | 14.2 | 8.9 | 7.6 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 1.5 | 0 | 0.1 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.6 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 14 | 3 | 489 | 186 | 3 |
| Future Vol, veh/h | 9 | 14 | 3 | 489 | 186 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 42 | 81 | 75 | 72 | 93 | 25 |
| Heavy Vehicles, % | 0 | 8 | 0 | 8 | 20 | 0 |
| Mvmt Flow | 21 | 17 | 4 | 679 | 200 | 12 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 893 | 206 | 212 | 0 | - | 0 |
| Stage 1 | 206 | - | - | - | - | - |
| Stage 2 | 687 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.28 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.372 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 315 | 820 | 1370 | - | - | - |
| Stage 1 | 833 | - | - | - | - | - |
| Stage 2 | 503 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 313 | 820 | 1370 | - | - | - |
| Mov Cap-2 Maneuver | 313 | - | - | - | - | - |
| Stage 1 | 829 | - | - | - | - | - |
| Stage 2 | 503 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.2 | 0 | 0 |
| HCM LOS | B | | |

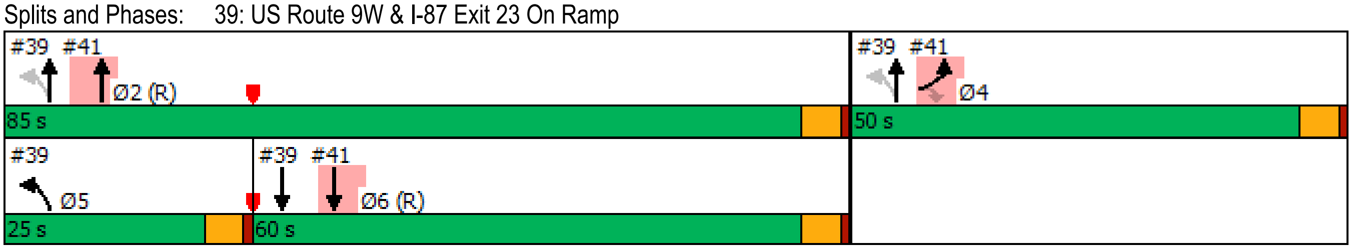
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1370 | - | 432 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.09 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 14.2 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.3 | - | - |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 351 | 808 | 653 | 214 | | |
| Future Volume (vph) | 0 | 0 | 351 | 808 | 653 | 214 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.963 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1656 | 1863 | 3318 | 0 | | |
| Flt Permitted | | | 0.240 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 418 | 1863 | 3318 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 40 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 346 | | | 240 | 257 | | | |
| Travel Time (s) | 7.9 | | | 5.5 | 5.8 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.89 | 0.89 | 0.93 | 0.93 | | |
| Heavy Vehicles (%) | 2% | 2% | 9% | 2% | 6% | 1% | | |
| Adj. Flow (vph) | 0 | 0 | 394 | 908 | 702 | 230 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 394 | 908 | 932 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 65.4 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.48 | | | |
| v/c Ratio | | | 0.80 | 0.49 | 0.57 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Control Delay | | | 16.2 | 1.3 | 26.3 | | | |
| Queue Delay | | | 0.4 | 0.0 | 0.0 | | | |
| Total Delay | | | 16.7 | 1.3 | 26.3 | | | |
| LOS | | | B | A | C | | | |
| Approach Delay | | | | 6.0 | 26.3 | | | |
| Approach LOS | | | | A | C | | | |
| Queue Length 50th (ft) | | | 57 | 42 | 271 | | | |
| Queue Length 95th (ft) | | | m73 | m21 | 408 | | | |
| Internal Link Dist (ft) | 266 | | | 160 | 177 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 585 | 1863 | 1627 | | | |
| Starvation Cap Reductn | | | 29 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 0 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 0.71 | 0.49 | 0.57 | | | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.00 | |
| Intersection Signal Delay: 14.4 | Intersection LOS: B |
| Intersection Capacity Utilization 83.3% | ICU Level of Service E |
| Analysis Period (min) 15 | |
| m Volume for 95th percentile queue is metered by upstream signal. | |

Splits and Phases: 39: US Route 9W & I-87 Exit 23 On Ramp

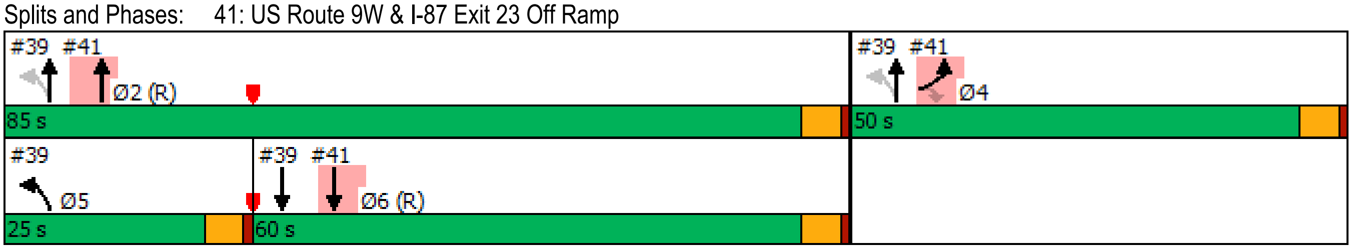


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 500 | 316 | 0 | 659 | 653 | 0 | |
| Future Volume (vph) | 500 | 316 | 0 | 659 | 653 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 278 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 284 | | | 365 | 240 | | |
| Travel Time (s) | 6.5 | | | 8.3 | 5.5 | | |
| Peak Hour Factor | 0.83 | 0.83 | 0.86 | 0.86 | 0.98 | 0.98 | |
| Heavy Vehicles (%) | 0% | 3% | 0% | 2% | 0% | 0% | |
| Adj. Flow (vph) | 602 | 381 | 0 | 766 | 666 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 602 | 381 | 0 | 766 | 666 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 45.0 | 45.0 | | 80.0 | 65.4 | | |
| Actuated g/C Ratio | 0.33 | 0.33 | | 0.59 | 0.48 | | |
| v/c Ratio | 1.00 | 0.54 | | 0.37 | 0.38 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Control Delay | 82.0 | 12.8 | | 14.9 | 4.0 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.3 | | |
| Total Delay | 82.0 | 12.8 | | 14.9 | 4.3 | | |
| LOS | F | B | | B | A | | |
| Approach Delay | 55.1 | | | 14.9 | 4.3 | | |
| Approach LOS | E | | | B | A | | |
| Queue Length 50th (ft) | ~528 | 64 | | 175 | 19 | | |
| Queue Length 95th (ft) | #676 | 128 | | 203 | 23 | | |
| Internal Link Dist (ft) | 204 | | | 285 | 160 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 601 | 708 | | 2097 | 1747 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 473 | | |
| Spillback Cap Reductn | 0 | 0 | | 5 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.00 | 0.54 | | 0.37 | 0.52 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.00 | |
| Intersection Signal Delay: 28.4 | Intersection LOS: C |
| Intersection Capacity Utilization 83.3% | ICU Level of Service E |
| Analysis Period (min) 15 | |
| ~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles. | |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Splits and Phases: 41: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 40 | 1 | 1 | 502 | 146 | 19 |
| Future Vol, veh/h | 40 | 1 | 1 | 502 | 146 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 65 | 65 | 83 | 83 | 77 | 77 |
| Heavy Vehicles, % | 3 | 0 | 0 | 5 | 12 | 6 |
| Mvmt Flow | 62 | 2 | 1 | 605 | 190 | 25 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 810 | 203 | 215 | 0 | - | 0 |
| Stage 1 | 203 | - | - | - | - | - |
| Stage 2 | 607 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 348 | 843 | 1367 | - | - | - |
| Stage 1 | 829 | - | - | - | - | - |
| Stage 2 | 542 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 348 | 843 | 1367 | - | - | - |
| Mov Cap-2 Maneuver | 348 | - | - | - | - | - |
| Stage 1 | 828 | - | - | - | - | - |
| Stage 2 | 542 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 17.4 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1367 | - | 353 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.179 | - | - |
| HCM Control Delay (s) | 7.6 | 0 | 17.4 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.6 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1 | | | | | |

| Movement | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 497 | 147 | 0 | 6 | 46 |
| Future Vol, veh/h | 24 | 497 | 147 | 0 | 6 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 4 | 5 | 12 | 0 | 0 | 0 |
| Mvmt Flow | 30 | 621 | 177 | 0 | 7 | 55 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 177 | 0 | - | 0 | 858 | 177 |
| Stage 1 | - | - | - | - | 177 | - |
| Stage 2 | - | - | - | - | 681 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1387 | - | - | - | 330 | 871 |
| Stage 1 | - | - | - | - | 859 | - |
| Stage 2 | - | - | - | - | 506 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1387 | - | - | - | 319 | 871 |
| Mov Cap-2 Maneuver | - | - | - | - | 319 | - |
| Stage 1 | - | - | - | - | 831 | - |
| Stage 2 | - | - | - | - | 506 | - |

| Approach | NB | SB | SE |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 10.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBL | NBT | SELn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1387 | - | 726 | - | - |
| HCM Lane V/C Ratio | 0.022 | - | 0.086 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | 10.4 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 7 | 479 | 18 | 12 | 210 |
| Future Vol, veh/h | 11 | 7 | 479 | 18 | 12 | 210 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 80 | 80 | 92 | 92 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 9 | 521 | 20 | 14 | 247 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 806 | 531 | 0 | 0 | 541 | 0 |
| Stage 1 | 531 | - | - | - | - | - |
| Stage 2 | 275 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 351 | 548 | - | - | 1028 | - |
| Stage 1 | 590 | - | - | - | - | - |
| Stage 2 | 771 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 345 | 548 | - | - | 1028 | - |
| Mov Cap-2 Maneuver | 345 | - | - | - | - | - |
| Stage 1 | 590 | - | - | - | - | - |
| Stage 2 | 759 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.5 | 0 | 0.5 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 403 | 1028 | - |
| HCM Lane V/C Ratio | - | - | 0.056 | 0.014 | - |
| HCM Control Delay (s) | - | - | 14.5 | 8.6 | 0 |
| HCM Lane LOS | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0 | - |

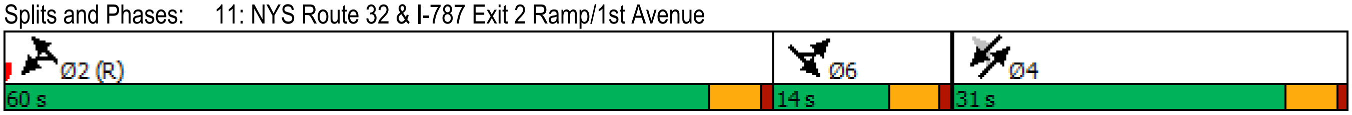
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 0 | 47 | 910 | 101 | 60 | 6 | 76 | 0 | 0 | 210 | 9 |
| Future Volume (vph) | 2 | 0 | 47 | 910 | 101 | 60 | 6 | 76 | 0 | 0 | 210 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.87 | | | | | | | | | | |
| Frt | | 0.871 | | | 0.944 | | | | | | 0.994 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.996 | | | | |
| Satd. Flow (prot) | 0 | 1358 | 0 | 1719 | 1754 | 0 | 0 | 1688 | 0 | 0 | 1715 | 0 |
| Flt Permitted | | 0.998 | | 0.950 | | | | 0.973 | | | | |
| Satd. Flow (perm) | 0 | 1353 | 0 | 1719 | 1754 | 0 | 0 | 1649 | 0 | 0 | 1715 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 43 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 5% | 0% | 6% | 0% | 13% | 0% | 0% | 10% | 13% |
| Adj. Flow (vph) | 3 | 0 | 64 | 1011 | 112 | 67 | 7 | 92 | 0 | 0 | 228 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 67 | 0 | 1011 | 179 | 0 | 0 | 99 | 0 | 0 | 238 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 6.5 | | 66.1 | 66.1 | | | 19.5 | | | 19.5 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.06 | | 0.63 | 0.63 | | | 0.19 | | | 0.19 | |
| v/c Ratio | | 0.44 | | 0.94 | 0.16 | | | 0.32 | | | 0.74 | |
| Control Delay | | 19.1 | | 36.9 | 8.1 | | | 38.4 | | | 53.8 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 19.1 | | 36.9 | 8.1 | | | 38.4 | | | 53.8 | |
| LOS | | B | | D | A | | | D | | | D | |
| Approach Delay | | 19.1 | | | 32.6 | | | 38.4 | | | 53.8 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 584 | 35 | | | 58 | | | 151 | |
| Queue Length 95th (ft) | | 22 | | #1031 | 83 | | | 91 | | | 220 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 183 | | 1081 | 1119 | | | 408 | | | 426 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.37 | | 0.94 | 0.16 | | | 0.24 | | | 0.56 | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 35.5 Intersection LOS: D
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



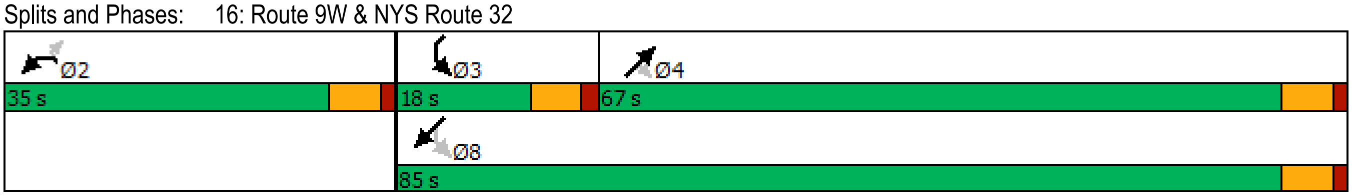
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 299 | 130 | 1081 | 96 | 103 | 1439 |
| Future Volume (vph) | 299 | 130 | 1081 | 96 | 103 | 1439 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1719 | 1455 | 3471 | 1509 | 1583 | 3539 |
| Flt Permitted | 0.950 | | | | 0.088 | |
| Satd. Flow (perm) | 1719 | 1455 | 3471 | 1509 | 147 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 69 | | 92 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 11% | 4% | 7% | 14% | 2% |
| Adj. Flow (vph) | 329 | 143 | 1188 | 105 | 110 | 1531 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 329 | 143 | 1188 | 105 | 110 | 1531 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 35.0 | 35.0 | 67.0 | 67.0 | 18.0 | 85.0 |
| Total Split (%) | 29.2% | 29.2% | 55.8% | 55.8% | 15.0% | 70.8% |
| Maximum Green (s) | 29.0 | 29.0 | 61.0 | 61.0 | 12.0 | 79.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 29.4 | 29.4 | 41.4 | 41.4 | 55.9 | 55.9 |
| Actuated g/C Ratio | 0.30 | 0.30 | 0.43 | 0.43 | 0.57 | 0.57 |
| v/c Ratio | 0.64 | 0.29 | 0.81 | 0.15 | 0.53 | 0.75 |
| Control Delay | 38.6 | 18.1 | 29.1 | 4.9 | 21.2 | 17.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.6 | 18.1 | 29.1 | 4.9 | 21.2 | 17.9 |
| LOS | D | B | C | A | C | B |
| Approach Delay | 32.4 | | 27.1 | | | 18.1 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 173 | 33 | 326 | 5 | 29 | 345 |
| Queue Length 95th (ft) | #351 | 101 | 421 | 34 | 71 | 420 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 518 | 486 | 2200 | 990 | 263 | 2905 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.64 | 0.29 | 0.54 | 0.11 | 0.42 | 0.53 |

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 97.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 23.5 Intersection LOS: C
Intersection Capacity Utilization 67.2% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



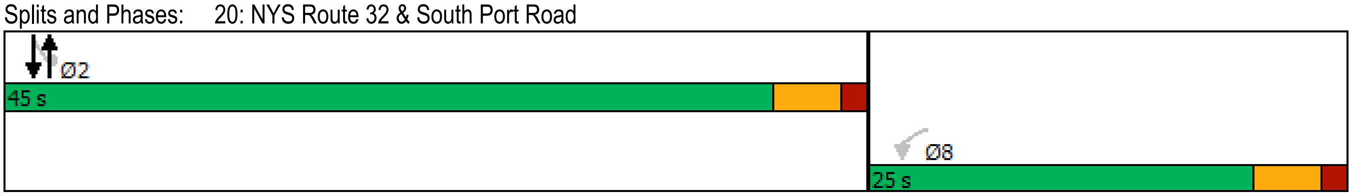
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 101 | 95 | 253 | 28 | 46 | 930 |
| Future Volume (vph) | 101 | 95 | 253 | 28 | 46 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.935 | | 0.986 | | | |
| Flt Protected | 0.975 | | | | | 0.998 |
| Satd. Flow (prot) | 1597 | 0 | 1670 | 0 | 0 | 1778 |
| Flt Permitted | 0.975 | | | | | 0.968 |
| Satd. Flow (perm) | 1597 | 0 | 1670 | 0 | 0 | 1724 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 68 | | 13 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 8% | 9% | 8% | 50% | 40% | 5% |
| Adj. Flow (vph) | 119 | 112 | 351 | 39 | 49 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 231 | 0 | 390 | 0 | 0 | 1038 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 12.1 | | 43.2 | | | 43.2 |
| Actuated g/C Ratio | 0.19 | | 0.66 | | | 0.66 |
| v/c Ratio | 0.66 | | 0.35 | | | 0.91 |
| Control Delay | 25.6 | | 6.7 | | | 26.1 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 25.6 | | 6.7 | | | 26.1 |
| LOS | C | | A | | | C |
| Approach Delay | 25.6 | | 6.7 | | | 26.1 |
| Approach LOS | C | | A | | | C |
| Queue Length 50th (ft) | 56 | | 53 | | | 285 |
| Queue Length 95th (ft) | 107 | | 93 | | | #695 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 537 | | 1108 | | | 1139 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.43 | | 0.35 | | | 0.91 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 65.4
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 90.4% ICU Level of Service E
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 6.2 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 68 | 283 | 204 | 136 | 236 | 87 |
| Future Vol, veh/h | 68 | 283 | 204 | 136 | 236 | 87 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 82 | 82 | 74 | 74 | 85 | 85 |
| Heavy Vehicles, % | 12 | 3 | 9 | 8 | 4 | 8 |
| Mvmt Flow | 83 | 345 | 276 | 184 | 278 | 102 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1065 | 329 | 278 | 0 | - | 0 |
| Stage 1 | 329 | - | - | - | - | - |
| Stage 2 | 736 | - | - | - | - | - |
| Critical Hdwy | 6.52 | 6.23 | 4.19 | - | - | - |
| Critical Hdwy Stg 1 | 5.52 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.52 | - | - | - | - | - |
| Follow-up Hdwy | 3.608 | 3.327 | 2.281 | - | - | - |
| Pot Cap-1 Maneuver | 236 | 710 | 1246 | - | - | - |
| Stage 1 | 707 | - | - | - | - | - |
| Stage 2 | 456 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 178 | 710 | 1246 | - | - | - |
| Mov Cap-2 Maneuver | 178 | - | - | - | - | - |
| Stage 1 | 532 | - | - | - | - | - |
| Stage 2 | 456 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 12.9 | 5.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1246 | - | 881 | - | - |
| HCM Lane V/C Ratio | 0.221 | - | 0.486 | - | - |
| HCM Control Delay (s) | 8.7 | 0 | 12.9 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 2.7 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.6 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 30 | 209 | 408 | 285 | 59 | 37 |
| Future Vol, veh/h | 30 | 209 | 408 | 285 | 59 | 37 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 77 | 77 | 84 | 84 | 81 | 81 |
| Heavy Vehicles, % | 4 | 0 | 0 | 5 | 5 | 1 |
| Mvmt Flow | 39 | 271 | 486 | 339 | 73 | 46 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 825 | 0 | - | 0 | 1005 | 656 |
| Stage 1 | - | - | - | - | 656 | - |
| Stage 2 | - | - | - | - | 349 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.45 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.545 | 3.309 |
| Pot Cap-1 Maneuver | 797 | - | - | - | 264 | 467 |
| Stage 1 | - | - | - | - | 511 | - |
| Stage 2 | - | - | - | - | 707 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 797 | - | - | - | 249 | 467 |
| Mov Cap-2 Maneuver | - | - | - | - | 249 | - |
| Stage 1 | - | - | - | - | 481 | - |
| Stage 2 | - | - | - | - | 707 | - |

| Approach | NB | | SB | | NE | |
|---|---|---|---|---|---|---|
| HCM Control Delay, s | 1.2 | | 0 | | 24.2 | |
| HCM LOS | | | | | C | |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 304 | 797 | - | - | - |
| HCM Lane V/C Ratio | 0.39 | 0.049 | - | - | - |
| HCM Control Delay (s) | 24.2 | 9.7 | 0 | - | - |
| HCM Lane LOS | C | A | A | - | - |
| HCM 95th %tile Q(veh) | 1.8 | 0.2 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 45 | 72 | 52 | 235 | 673 | 359 |
| Future Vol, veh/h | 45 | 72 | 52 | 235 | 673 | 359 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 88 | 88 | 91 | 91 |
| Heavy Vehicles, % | 29 | 14 | 10 | 7 | 7 | 2 |
| Mvmt Flow | 49 | 78 | 59 | 267 | 740 | 395 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1323 | 938 | 1135 | 0 | - | 0 |
| Stage 1 | 938 | - | - | - | - | - |
| Stage 2 | 385 | - | - | - | - | - |
| Critical Hdwy | 6.69 | 6.34 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.69 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.69 | - | - | - | - | - |
| Follow-up Hdwy | 3.761 | 3.426 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 151 | 305 | 587 | - | - | - |
| Stage 1 | 341 | - | - | - | - | - |
| Stage 2 | 633 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 133 | 305 | 587 | - | - | - |
| Mov Cap-2 Maneuver | 133 | - | - | - | - | - |
| Stage 1 | 301 | - | - | - | - | - |
| Stage 2 | 633 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 30.9 | 2.1 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 587 | - | 133 | 305 | - | - |
| HCM Lane V/C Ratio | 0.101 | - | 0.368 | 0.257 | - | - |
| HCM Control Delay (s) | 11.8 | 0 | 47 | 20.8 | - | - |
| HCM Lane LOS | B | A | E | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 1.5 | 1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.2 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 74 | 32 | 96 | 124 | 16 | 66 |
| Future Vol, veh/h | 74 | 32 | 96 | 124 | 16 | 66 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 83 | 83 | 84 | 84 | 78 | 78 |
| Heavy Vehicles, % | 26 | 10 | 25 | 13 | 0 | 37 |
| Mvmt Flow | 89 | 39 | 114 | 148 | 21 | 85 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 315 | 188 | 0 | 0 | 262 | 0 |
| Stage 1 | 188 | - | - | - | - | - |
| Stage 2 | 127 | - | - | - | - | - |
| Critical Hdwy | 6.66 | 6.3 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.66 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.66 | - | - | - | - | - |
| Follow-up Hdwy | 3.734 | 3.39 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 631 | 834 | - | - | 1314 | - |
| Stage 1 | 790 | - | - | - | - | - |
| Stage 2 | 843 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 621 | 834 | - | - | 1314 | - |
| Mov Cap-2 Maneuver | 621 | - | - | - | - | - |
| Stage 1 | 790 | - | - | - | - | - |
| Stage 2 | 830 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.1 | 0 | 1.5 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 621 | 834 | 1314 | - |
| HCM Lane V/C Ratio | - | - | 0.144 | 0.046 | 0.016 | - |
| HCM Control Delay (s) | - | - | 11.8 | 9.5 | 7.8 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.5 | 0.1 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 2 | 6 | 201 | 427 | 9 |
| Future Vol, veh/h | 6 | 2 | 6 | 201 | 427 | 9 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 31 | 80 | 88 | 63 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 12 | 4 | 19 | 251 | 485 | 14 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 781 | 492 | 499 | 0 | - | 0 |
| Stage 1 | 492 | - | - | - | - | - |
| Stage 2 | 289 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 366 | 581 | 1075 | - | - | - |
| Stage 1 | 619 | - | - | - | - | - |
| Stage 2 | 765 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 358 | 581 | 1075 | - | - | - |
| Mov Cap-2 Maneuver | 358 | - | - | - | - | - |
| Stage 1 | 606 | - | - | - | - | - |
| Stage 2 | 765 | - | - | - | - | - |

| Approach | EB | | NB | | SB |
|---|---|---|---|---|---|
| HCM Control Delay, s | 14.5 | | 0.6 | | 0 |
| HCM LOS | B | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1075 | - | 396 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | 0.04 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | 14.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

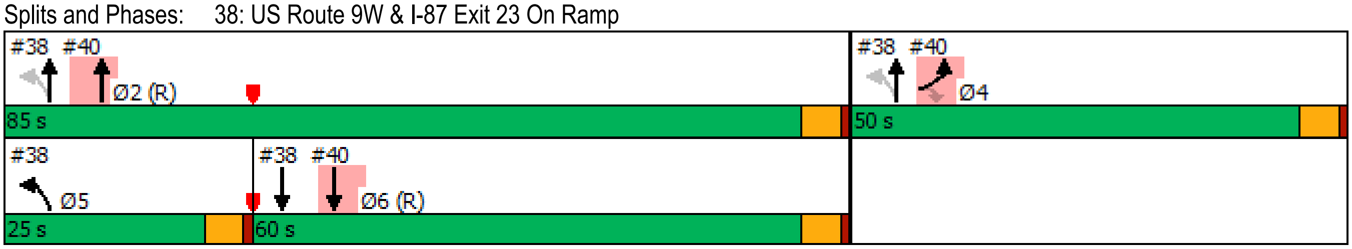
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 402 | 473 | 1242 | 559 | | |
| Future Volume (vph) | 0 | 0 | 402 | 473 | 1242 | 559 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.953 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1770 | 1863 | 3373 | 0 | | |
| Flt Permitted | | | 0.044 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 82 | 1863 | 3373 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 65 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 314 | | | 227 | 306 | | | |
| Travel Time (s) | 7.1 | | | 5.2 | 7.0 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.93 | 0.93 | 0.97 | 0.97 | | |
| Adj. Flow (vph) | 0 | 0 | 432 | 509 | 1280 | 576 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 432 | 509 | 1856 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 55.0 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.41 | | | |
| v/c Ratio | | | 0.76 | 0.27 | 1.31 | | | |
| Control Delay | | | 38.5 | 0.4 | 179.6 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Queue Delay | | | 34.3 | 0.0 | 0.1 | | | |
| Total Delay | | | 72.8 | 0.4 | 179.7 | | | |
| LOS | | | E | A | F | | | |
| Approach Delay | | | | 33.6 | 179.7 | | | |
| Approach LOS | | | | C | F | | | |
| Queue Length 50th (ft) | | | 305 | 0 | ~1088 | | | |
| Queue Length 95th (ft) | | | #556 | 1 | #1228 | | | |
| Internal Link Dist (ft) | 234 | | | 147 | 226 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 568 | 1863 | 1412 | | | |
| Starvation Cap Reductn | | | 155 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 34 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 1.05 | 0.27 | 1.35 | | | |

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay: 130.6 Intersection LOS: F
Intersection Capacity Utilization 105.7% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: US Route 9W & I-87 Exit 23 On Ramp



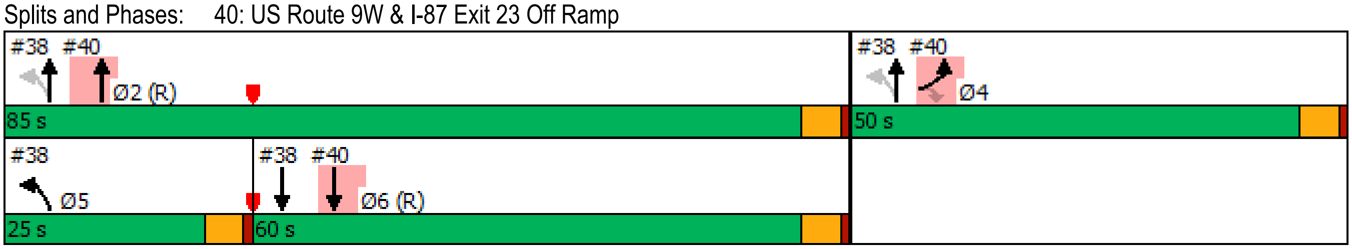
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 196 | 358 | 0 | 679 | 1242 | 0 | |
| Future Volume (vph) | 196 | 358 | 0 | 679 | 1242 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 301 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 298 | | | 384 | 227 | | |
| Travel Time (s) | 6.8 | | | 8.7 | 5.2 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.89 | 0.89 | 0.95 | 0.95 | |
| Adj. Flow (vph) | 202 | 369 | 0 | 763 | 1307 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 202 | 369 | 0 | 763 | 1307 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 25.8 | 25.8 | | 99.2 | 55.0 | | |
| Actuated g/C Ratio | 0.19 | 0.19 | | 0.73 | 0.41 | | |
| v/c Ratio | 0.60 | 0.68 | | 0.29 | 0.91 | | |
| Control Delay | 55.9 | 16.1 | | 7.2 | 11.0 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Queue Delay | 0.7 | 0.0 | | 0.0 | 46.7 | | |
| Total Delay | 56.6 | 16.1 | | 7.2 | 57.7 | | |
| LOS | E | B | | A | E | | |
| Approach Delay | 30.4 | | | 7.2 | 57.7 | | |
| Approach LOS | C | | | A | E | | |
| Queue Length 50th (ft) | 164 | 51 | | 104 | 82 | | |
| Queue Length 95th (ft) | 222 | 145 | | 177 | m62 | | |
| Internal Link Dist (ft) | 218 | | | 304 | 147 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 590 | 728 | | 2599 | 1441 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 386 | | |
| Spillback Cap Reductn | 171 | 0 | | 123 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.48 | 0.51 | | 0.31 | 1.24 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.31 | |
| Intersection Signal Delay: 37.2 | Intersection LOS: D |
| Intersection Capacity Utilization 105.7% | ICU Level of Service G |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.4 | | | | | |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 222 | 423 | 60 | 11 | 0 |
| Future Vol, veh/h | 1 | 222 | 423 | 60 | 11 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 91 | 91 | 46 | 46 |
| Heavy Vehicles, % | 0 | 7 | 4 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 249 | 465 | 66 | 24 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 531 | 0 | - | 0 | 749 | 498 |
| Stage 1 | - | - | - | - | 498 | - |
| Stage 2 | - | - | - | - | 251 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.4 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.4 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.4 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1047 | - | - | - | 382 | 576 |
| Stage 1 | - | - | - | - | 615 | - |
| Stage 2 | - | - | - | - | 795 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1047 | - | - | - | 382 | 576 |
| Mov Cap-2 Maneuver | - | - | - | - | 382 | - |
| Stage 1 | - | - | - | - | 614 | - |
| Stage 2 | - | - | - | - | 795 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 15.1 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 382 | 1047 | - | - | - |
| HCM Lane V/C Ratio | 0.063 | 0.001 | - | - | - |
| HCM Control Delay (s) | 15.1 | 8.4 | 0 | - | - |
| HCM Lane LOS | C | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | 0 | - | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.7 | | | | | |

| Movement | NBL | NBT | SBT | SBR | SEL | SER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 36 | 220 | 423 | 0 | 3 | 16 |
| Future Vol, veh/h | 36 | 220 | 423 | 0 | 3 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 75 | 75 | 87 | 87 |
| Heavy Vehicles, % | 4 | 0 | 0 | 7 | 3 | 7 |
| Mvmt Flow | 41 | 250 | 564 | 0 | 3 | 18 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 564 | 0 | - | 0 | 896 | 564 |
| Stage 1 | - | - | - | - | 564 | - |
| Stage 2 | - | - | - | - | 332 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.43 | 6.27 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.43 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.527 | 3.363 |
| Pot Cap-1 Maneuver | 998 | - | - | - | 309 | 516 |
| Stage 1 | - | - | - | - | 567 | - |
| Stage 2 | - | - | - | - | 725 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 998 | - | - | - | 294 | 516 |
| Mov Cap-2 Maneuver | - | - | - | - | 294 | - |
| Stage 1 | - | - | - | - | 540 | - |
| Stage 2 | - | - | - | - | 725 | - |

| Approach | NB | SB | SE |
|---|---|---|---|
| HCM Control Delay, s | 1.2 | 0 | 13.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBL | NBT | SELn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 998 | - | 461 | - | - |
| HCM Lane V/C Ratio | 0.041 | - | 0.047 | - | - |
| HCM Control Delay (s) | 8.8 | 0 | 13.2 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.9 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 15 | 195 | 11 | 7 | 437 |
| Future Vol, veh/h | 23 | 15 | 195 | 11 | 7 | 437 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 80 | 80 | 85 | 85 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 29 | 19 | 229 | 13 | 8 | 475 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 727 | 236 | 0 | 0 | 242 | 0 |
| Stage 1 | 236 | - | - | - | - | - |
| Stage 2 | 491 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 394 | 808 | - | - | 1324 | - |
| Stage 1 | 808 | - | - | - | - | - |
| Stage 2 | 619 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 391 | 808 | - | - | 1324 | - |
| Mov Cap-2 Maneuver | 391 | - | - | - | - | - |
| Stage 1 | 808 | - | - | - | - | - |
| Stage 2 | 614 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.1 | 0 | 0.1 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 491 | 1324 | - |
| HCM Lane V/C Ratio | - | - | 0.097 | 0.006 | - |
| HCM Control Delay (s) | - | - | 13.1 | 7.7 | 0 |
| HCM Lane LOS | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.3 | 0 | - |

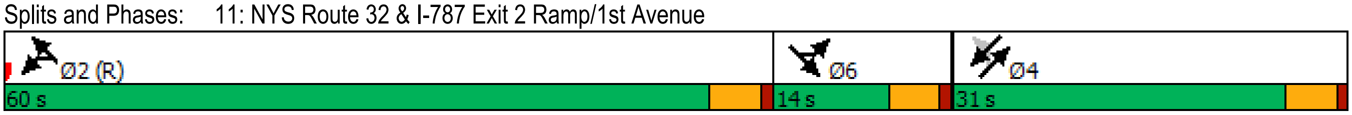
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 30 | 500 | 53 | 90 | 8 | 75 | 0 | 0 | 122 | 4 |
| Future Volume (vph) | 3 | 0 | 30 | 500 | 53 | 90 | 8 | 75 | 0 | 0 | 122 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.88 | | | | | | | | | | |
| Frt | | 0.878 | | | 0.906 | | | | | | 0.996 | |
| Flt Protected | | 0.995 | | 0.950 | | | | 0.995 | | | | |
| Satd. Flow (prot) | 0 | 1380 | 0 | 1444 | 1426 | 0 | 0 | 1645 | 0 | 0 | 1601 | 0 |
| Flt Permitted | | 0.995 | | 0.950 | | | | 0.963 | | | | |
| Satd. Flow (perm) | 0 | 1368 | 0 | 1444 | 1426 | 0 | 0 | 1592 | 0 | 0 | 1601 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 101 | | | | | | 1 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 25% | 0% | 33% | 14% | 15% | 0% | 0% | 18% | 25% |
| Adj. Flow (vph) | 4 | 0 | 37 | 562 | 60 | 101 | 9 | 82 | 0 | 0 | 156 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 41 | 0 | 562 | 161 | 0 | 0 | 91 | 0 | 0 | 161 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 5.7 | | 72.7 | 72.7 | | | 15.8 | | | 15.8 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.05 | | 0.69 | 0.69 | | | 0.15 | | | 0.15 | |
| v/c Ratio | | 0.28 | | 0.56 | 0.16 | | | 0.38 | | | 0.67 | |
| Control Delay | | 8.4 | | 13.1 | 3.8 | | | 43.4 | | | 54.8 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 8.4 | | 13.1 | 3.8 | | | 43.4 | | | 54.8 | |
| LOS | | A | | B | A | | | D | | | D | |
| Approach Delay | | 8.4 | | | 11.1 | | | 43.4 | | | 54.8 | |
| Approach LOS | | A | | | B | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 194 | 13 | | | 56 | | | 103 | |
| Queue Length 95th (ft) | | 7 | | 358 | 44 | | | 99 | | | 137 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 185 | | 999 | 1017 | | | 394 | | | 397 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.22 | | 0.56 | 0.16 | | | 0.23 | | | 0.41 | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 53.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



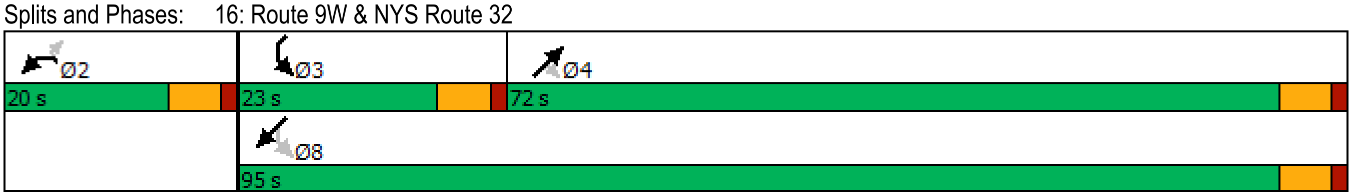
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 100 | 181 | 2035 | 176 | 148 | 821 |
| Future Volume (vph) | 100 | 181 | 2035 | 176 | 148 | 821 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1442 | 3505 | 1482 | 1388 | 3406 |
| Flt Permitted | 0.950 | | | | 0.055 | |
| Satd. Flow (perm) | 1530 | 1442 | 3505 | 1482 | 80 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 208 | | 108 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.87 | 0.87 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 12% | 3% | 9% | 30% | 6% |
| Adj. Flow (vph) | 115 | 208 | 2188 | 189 | 174 | 966 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 115 | 208 | 2188 | 189 | 174 | 966 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 20.0 | 20.0 | 72.0 | 72.0 | 23.0 | 95.0 |
| Total Split (%) | 17.4% | 17.4% | 62.6% | 62.6% | 20.0% | 82.6% |
| Maximum Green (s) | 14.0 | 14.0 | 66.0 | 66.0 | 17.0 | 89.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 14.0 | 14.0 | 66.1 | 66.1 | 85.6 | 85.6 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.59 | 0.59 | 0.77 | 0.77 |
| v/c Ratio | 0.60 | 0.57 | 1.05 | 0.21 | 0.79 | 0.37 |
| Control Delay | 61.0 | 13.1 | 60.0 | 5.6 | 52.9 | 4.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.0 | 13.1 | 60.0 | 5.6 | 52.9 | 4.7 |
| LOS | E | B | E | A | D | A |
| Approach Delay | 30.2 | | 55.7 | | | 12.0 |
| Approach LOS | C | | E | | | B |
| Queue Length 50th (ft) | 80 | 0 | ~930 | 24 | 81 | 98 |
| Queue Length 95th (ft) | 140 | 63 | #1096 | 60 | 147 | 113 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 192 | 363 | 2074 | 921 | 260 | 2718 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.57 | 1.05 | 0.21 | 0.67 | 0.36 |

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 111.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 40.6 Intersection LOS: D
Intersection Capacity Utilization 85.0% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



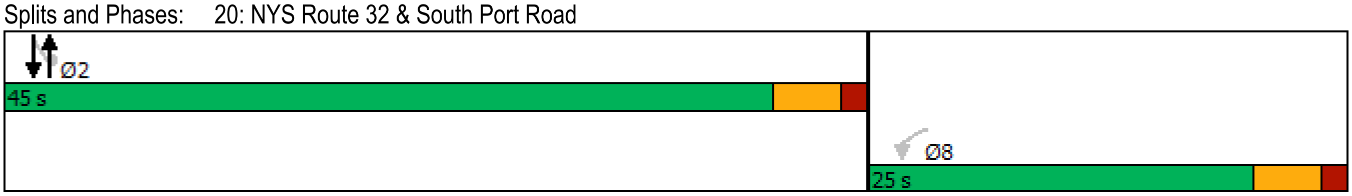
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 45 | 107 | 717 | 85 | 165 | 258 |
| Future Volume (vph) | 45 | 107 | 717 | 85 | 165 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.905 | | 0.986 | | | |
| Flt Protected | 0.985 | | | | | 0.982 |
| Satd. Flow (prot) | 1027 | 0 | 1746 | 0 | 0 | 1514 |
| Flt Permitted | 0.985 | | | | | 0.370 |
| Satd. Flow (perm) | 1027 | 0 | 1746 | 0 | 0 | 570 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 143 | | 14 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.75 | 0.75 | 0.87 | 0.87 | 0.90 | 0.84 |
| Heavy Vehicles (%) | 60% | 67% | 6% | 18% | 27% | 21% |
| Adj. Flow (vph) | 60 | 143 | 824 | 98 | 183 | 307 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 203 | 0 | 922 | 0 | 0 | 490 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 10.7 | | 43.9 | | | 43.9 |
| Actuated g/C Ratio | 0.17 | | 0.68 | | | 0.68 |
| v/c Ratio | 0.70 | | 0.77 | | | 1.27 |
| Control Delay | 21.8 | | 15.4 | | | 158.1 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 21.8 | | 15.4 | | | 158.1 |
| LOS | C | | B | | | F |
| Approach Delay | 21.8 | | 15.4 | | | 158.1 |
| Approach LOS | C | | B | | | F |
| Queue Length 50th (ft) | 20 | | 177 | | | ~229 |
| Queue Length 95th (ft) | 49 | | #560 | | | #294 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 418 | | 1190 | | | 387 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.49 | | 0.77 | | | 1.27 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 64.6
Natural Cycle: 120
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 59.5 Intersection LOS: E
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | |
|---|---|
| Int Delay, s/veh | 7.5 |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 65 | 229 | 325 | 357 | 89 | 131 |
| Future Vol, veh/h | 65 | 229 | 325 | 357 | 89 | 131 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 91 | 91 | 88 | 88 |
| Heavy Vehicles, % | 9 | 20 | 10 | 10 | 18 | 17 |
| Mvmt Flow | 72 | 254 | 357 | 392 | 101 | 149 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1282 | 176 | 101 | 0 | - | 0 |
| Stage 1 | 176 | - | - | - | - | - |
| Stage 2 | 1106 | - | - | - | - | - |
| Critical Hdwy | 6.49 | 6.4 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.49 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.49 | - | - | - | - | - |
| Follow-up Hdwy | 3.581 | 3.48 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 176 | 823 | 1443 | - | - | - |
| Stage 1 | 838 | - | - | - | - | - |
| Stage 2 | 307 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 120 | 823 | 1443 | - | - | - |
| Mov Cap-2 Maneuver | 120 | - | - | - | - | - |
| Stage 1 | 573 | - | - | - | - | - |
| Stage 2 | 307 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 21.1 | 4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1443 | - | 543 | - | - |
| HCM Lane V/C Ratio | 0.248 | - | 0.602 | - | - |
| HCM Control Delay (s) | 8.3 | 0 | 21.1 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 4 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 13.3 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 548 | 205 | 62 | 170 | 28 |
| Future Vol, veh/h | 26 | 548 | 205 | 62 | 170 | 28 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 84 | 84 | 81 | 81 | 83 | 83 |
| Heavy Vehicles, % | 3 | 0 | 22 | 10 | 12 | 11 |
| Mvmt Flow | 31 | 652 | 253 | 77 | 205 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 330 | 0 | - | 0 | 1006 | 292 |
| Stage 1 | - | - | - | - | 292 | - |
| Stage 2 | - | - | - | - | 714 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.52 | 6.31 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.52 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.608 | 3.399 |
| Pot Cap-1 Maneuver | 1224 | - | - | - | 256 | 726 |
| Stage 1 | - | - | - | - | 736 | - |
| Stage 2 | - | - | - | - | 467 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1224 | - | - | - | 246 | 726 |
| Mov Cap-2 Maneuver | - | - | - | - | 246 | - |
| Stage 1 | - | - | - | - | 707 | - |
| Stage 2 | - | - | - | - | 467 | - |

| Approach | NB | | SB | | NE | |
|---|---|---|---|---|---|---|
| HCM Control Delay, s | 0.4 | | 0 | | 68.7 | |
| HCM LOS | | | | | F | |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 271 | 1224 | - | - | - |
| HCM Lane V/C Ratio | 0.88 | 0.025 | - | - | - |
| HCM Control Delay (s) | 68.7 | 8 | 0 | - | - |
| HCM Lane LOS | F | A | A | - | - |
| HCM 95th %tile Q(veh) | 7.6 | 0.1 | - | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 15.5 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 149 | 59 | 63 | 654 | 224 | 79 |
| Future Vol, veh/h | 149 | 59 | 63 | 654 | 224 | 79 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 86 | 86 | 90 | 90 |
| Heavy Vehicles, % | 13 | 28 | 20 | 9 | 23 | 28 |
| Mvmt Flow | 171 | 68 | 73 | 760 | 249 | 88 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1199 | 293 | 337 | 0 | - | 0 |
| Stage 1 | 293 | - | - | - | - | - |
| Stage 2 | 906 | - | - | - | - | - |
| Critical Hdwy | 6.53 | 6.48 | 4.3 | - | - | - |
| Critical Hdwy Stg 1 | 5.53 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.53 | - | - | - | - | - |
| Follow-up Hdwy | 3.617 | 3.552 | 2.38 | - | - | - |
| Pot Cap-1 Maneuver | 195 | 689 | 1128 | - | - | - |
| Stage 1 | 733 | - | - | - | - | - |
| Stage 2 | 377 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 173 | 689 | 1128 | - | - | - |
| Mov Cap-2 Maneuver | 173 | - | - | - | - | - |
| Stage 1 | 651 | - | - | - | - | - |
| Stage 2 | 377 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 89 | 0.7 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1128 | - | 173 | 689 | - | - |
| HCM Lane V/C Ratio | 0.065 | - | 0.99 | 0.098 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | 119.9 | 10.8 | - | - |
| HCM Lane LOS | A | A | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 7.9 | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 155 | 7 | 51 | 66 | 43 | 67 |
| Future Vol, veh/h | 155 | 7 | 51 | 66 | 43 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 65 | 65 | 84 | 84 | 62 | 62 |
| Heavy Vehicles, % | 25 | 17 | 42 | 42 | 0 | 25 |
| Mvmt Flow | 238 | 11 | 61 | 79 | 69 | 108 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 347 | 101 | 0 | 0 | 140 | 0 |
| Stage 1 | 101 | - | - | - | - | - |
| Stage 2 | 246 | - | - | - | - | - |
| Critical Hdwy | 6.65 | 6.37 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.65 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.65 | - | - | - | - | - |
| Follow-up Hdwy | 3.725 | 3.453 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 606 | 915 | - | - | 1456 | - |
| Stage 1 | 869 | - | - | - | - | - |
| Stage 2 | 744 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 578 | 915 | - | - | 1456 | - |
| Mov Cap-2 Maneuver | 578 | - | - | - | - | - |
| Stage 1 | 869 | - | - | - | - | - |
| Stage 2 | 709 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.2 | 0 | 3 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 578 | 915 | 1456 | - |
| HCM Lane V/C Ratio | - | - | 0.413 | 0.012 | 0.048 | - |
| HCM Control Delay (s) | - | - | 15.5 | 9 | 7.6 | - |
| HCM Lane LOS | - | - | C | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 2 | 0 | 0.1 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.7 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 14 | 3 | 503 | 194 | 5 |
| Future Vol, veh/h | 11 | 14 | 3 | 503 | 194 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 42 | 81 | 75 | 72 | 93 | 25 |
| Heavy Vehicles, % | 0 | 8 | 0 | 8 | 20 | 0 |
| Mvmt Flow | 26 | 17 | 4 | 699 | 209 | 20 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 926 | 219 | 229 | 0 | - | 0 |
| Stage 1 | 219 | - | - | - | - | - |
| Stage 2 | 707 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.28 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.372 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 301 | 806 | 1351 | - | - | - |
| Stage 1 | 822 | - | - | - | - | - |
| Stage 2 | 493 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 299 | 806 | 1351 | - | - | - |
| Mov Cap-2 Maneuver | 299 | - | - | - | - | - |
| Stage 1 | 818 | - | - | - | - | - |
| Stage 2 | 493 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.1 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1351 | - | 399 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.109 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | 15.1 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.4 | - | - |

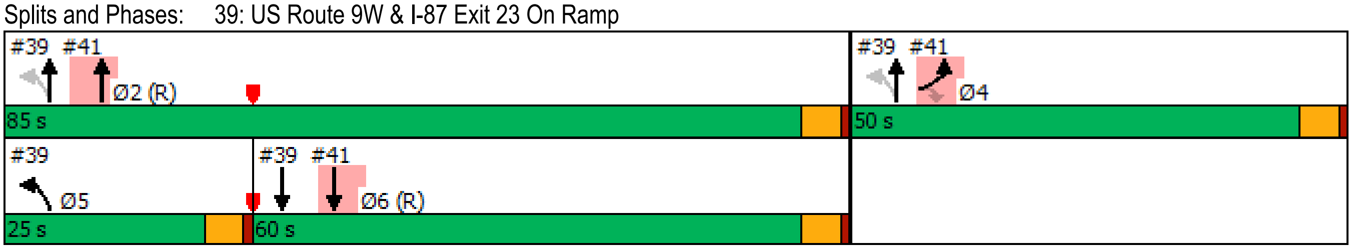
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 361 | 811 | 659 | 214 | | |
| Future Volume (vph) | 0 | 0 | 361 | 811 | 659 | 214 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.963 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1656 | 1863 | 3318 | 0 | | |
| Flt Permitted | | | 0.237 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 413 | 1863 | 3318 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 39 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 346 | | | 240 | 257 | | | |
| Travel Time (s) | 7.9 | | | 5.5 | 5.8 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.89 | 0.89 | 0.93 | 0.93 | | |
| Heavy Vehicles (%) | 2% | 2% | 9% | 2% | 6% | 1% | | |
| Adj. Flow (vph) | 0 | 0 | 406 | 911 | 709 | 230 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 406 | 911 | 939 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 64.6 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.48 | | | |
| v/c Ratio | | | 0.82 | 0.49 | 0.58 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Control Delay | | | 17.6 | 1.4 | 27.1 | | | |
| Queue Delay | | | 0.5 | 0.0 | 0.0 | | | |
| Total Delay | | | 18.1 | 1.4 | 27.1 | | | |
| LOS | | | B | A | C | | | |
| Approach Delay | | | | 6.5 | 27.1 | | | |
| Approach LOS | | | | A | C | | | |
| Queue Length 50th (ft) | | | 52 | 42 | 281 | | | |
| Queue Length 95th (ft) | | | m78 | m19 | 415 | | | |
| Internal Link Dist (ft) | 266 | | | 160 | 177 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 581 | 1863 | 1608 | | | |
| Starvation Cap Reductn | | | 29 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 0 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 0.74 | 0.49 | 0.58 | | | |

Intersection Summary

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 39: US Route 9W & I-87 Exit 23 On Ramp

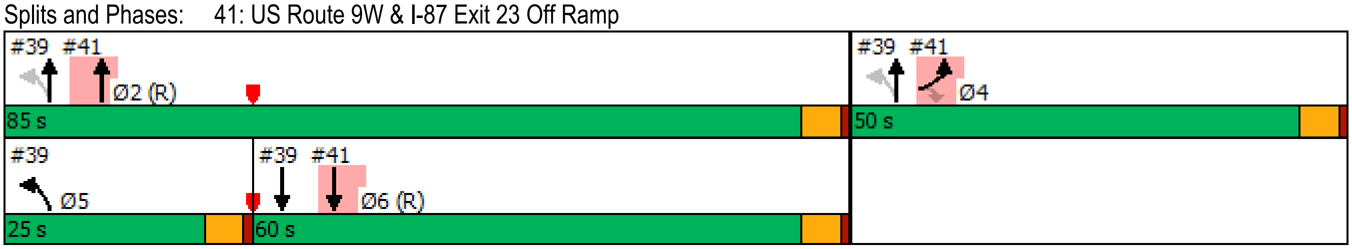


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 500 | 333 | 0 | 672 | 659 | 0 | |
| Future Volume (vph) | 500 | 333 | 0 | 672 | 659 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1805 | 1568 | 0 | 3539 | 3610 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 293 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 284 | | | 365 | 240 | | |
| Travel Time (s) | 6.5 | | | 8.3 | 5.5 | | |
| Peak Hour Factor | 0.83 | 0.83 | 0.86 | 0.86 | 0.98 | 0.98 | |
| Heavy Vehicles (%) | 0% | 3% | 0% | 2% | 0% | 0% | |
| Adj. Flow (vph) | 602 | 401 | 0 | 781 | 672 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 602 | 401 | 0 | 781 | 672 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 45.0 | 45.0 | | 80.0 | 64.6 | | |
| Actuated g/C Ratio | 0.33 | 0.33 | | 0.59 | 0.48 | | |
| v/c Ratio | 1.00 | 0.56 | | 0.37 | 0.39 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Control Delay | 82.0 | 12.9 | | 15.0 | 4.0 | | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.3 | | |
| Total Delay | 82.0 | 12.9 | | 15.0 | 4.3 | | |
| LOS | F | B | | B | A | | |
| Approach Delay | 54.4 | | | 15.0 | 4.3 | | |
| Approach LOS | D | | | B | A | | |
| Queue Length 50th (ft) | ~528 | 69 | | 179 | 19 | | |
| Queue Length 95th (ft) | #676 | 134 | | 208 | 23 | | |
| Internal Link Dist (ft) | 204 | | | 285 | 160 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 601 | 718 | | 2097 | 1727 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 460 | | |
| Spillback Cap Reductn | 0 | 0 | | 8 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 1.00 | 0.56 | | 0.37 | 0.53 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.00 | |
| Intersection Signal Delay: 28.2 | Intersection LOS: C |
| Intersection Capacity Utilization 83.8% | ICU Level of Service E |
| Analysis Period (min) 15 | |
| ~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles. | |
| # 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. | |

Splits and Phases: 41: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.2 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 40 | 1 | 1 | 519 | 156 | 19 |
| Future Vol, veh/h | 40 | 1 | 1 | 519 | 156 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 65 | 65 | 83 | 83 | 77 | 77 |
| Heavy Vehicles, % | 3 | 0 | 0 | 5 | 12 | 6 |
| Mvmt Flow | 62 | 2 | 1 | 625 | 203 | 25 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 843 | 216 | 228 | 0 | - | 0 |
| Stage 1 | 216 | - | - | - | - | - |
| Stage 2 | 627 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 333 | 829 | 1352 | - | - | - |
| Stage 1 | 818 | - | - | - | - | - |
| Stage 2 | 531 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 333 | 829 | 1352 | - | - | - |
| Mov Cap-2 Maneuver | 333 | - | - | - | - | - |
| Stage 1 | 817 | - | - | - | - | - |
| Stage 2 | 531 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 18.1 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1352 | - | 338 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.187 | - | - |
| HCM Control Delay (s) | 7.7 | 0 | 18.1 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.7 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 46 | 24 | 514 | 157 | 0 |
| Future Vol, veh/h | 6 | 46 | 24 | 514 | 157 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 80 | 80 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 4 | 5 | 12 | 0 | 0 | 0 |
| Mvmt Flow | 8 | 58 | 29 | 619 | 189 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 866 | 189 | 189 | 0 | - | 0 |
| Stage 1 | 189 | - | - | - | - | - |
| Stage 2 | 677 | - | - | - | - | - |
| Critical Hdwy | 6.44 | 6.25 | 4.22 | - | - | - |
| Critical Hdwy Stg 1 | 5.44 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.44 | - | - | - | - | - |
| Follow-up Hdwy | 3.536 | 3.345 | 2.308 | - | - | - |
| Pot Cap-1 Maneuver | 321 | 845 | 1327 | - | - | - |
| Stage 1 | 838 | - | - | - | - | - |
| Stage 2 | 501 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 310 | 845 | 1327 | - | - | - |
| Mov Cap-2 Maneuver | 310 | - | - | - | - | - |
| Stage 1 | 810 | - | - | - | - | - |
| Stage 2 | 501 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.6 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1327 | - | 705 | - | - |
| HCM Lane V/C Ratio | 0.022 | - | 0.092 | - | - |
| HCM Control Delay (s) | 7.8 | 0 | 10.6 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 21 | 14 | 479 | 35 | 23 | 210 |
| Future Vol, veh/h | 21 | 14 | 479 | 35 | 23 | 210 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 80 | 80 | 92 | 92 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 18 | 521 | 38 | 27 | 247 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 841 | 540 | 0 | 0 | 559 | 0 |
| Stage 1 | 540 | - | - | - | - | - |
| Stage 2 | 301 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 335 | 542 | - | - | 1012 | - |
| Stage 1 | 584 | - | - | - | - | - |
| Stage 2 | 751 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 325 | 542 | - | - | 1012 | - |
| Mov Cap-2 Maneuver | 325 | - | - | - | - | - |
| Stage 1 | 584 | - | - | - | - | - |
| Stage 2 | 728 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.5 | 0 | 0.9 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 387 | 1012 | - |
| HCM Lane V/C Ratio | - | - | 0.113 | 0.027 | - |
| HCM Control Delay (s) | - | - | 15.5 | 8.7 | 0 |
| HCM Lane LOS | - | - | C | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.4 | 0.1 | - |

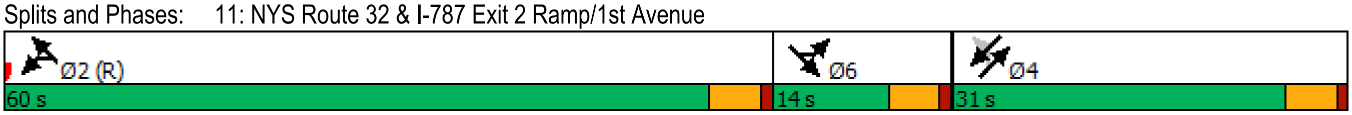
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 0 | 47 | 940 | 101 | 60 | 6 | 90 | 0 | 0 | 216 | 9 |
| Future Volume (vph) | 2 | 0 | 47 | 940 | 101 | 60 | 6 | 90 | 0 | 0 | 216 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.87 | | | | | | | | | | |
| Frt | | 0.871 | | | 0.944 | | | | | | 0.994 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.997 | | | | |
| Satd. Flow (prot) | 0 | 1358 | 0 | 1719 | 1754 | 0 | 0 | 1688 | 0 | 0 | 1715 | 0 |
| Flt Permitted | | 0.998 | | 0.950 | | | | 0.976 | | | | |
| Satd. Flow (perm) | 0 | 1353 | 0 | 1719 | 1754 | 0 | 0 | 1653 | 0 | 0 | 1715 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 73 | | | 43 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 5% | 0% | 6% | 0% | 13% | 0% | 0% | 10% | 13% |
| Adj. Flow (vph) | 3 | 0 | 64 | 1044 | 112 | 67 | 7 | 108 | 0 | 0 | 235 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 67 | 0 | 1044 | 179 | 0 | 0 | 115 | 0 | 0 | 245 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 60.0 | 60.0 | | 31.0 | 31.0 | | | 31.0 | |
| Total Split (%) | 13.3% | 13.3% | | 57.1% | 57.1% | | 29.5% | 29.5% | | | 29.5% | |
| Maximum Green (s) | 9.0 | 9.0 | | 55.0 | 55.0 | | 26.0 | 26.0 | | | 26.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 6.5 | | 65.6 | 65.6 | | | 20.0 | | | 20.0 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.06 | | 0.62 | 0.62 | | | 0.19 | | | 0.19 | |
| v/c Ratio | | 0.44 | | 0.97 | 0.16 | | | 0.37 | | | 0.75 | |
| Control Delay | | 19.1 | | 44.0 | 8.3 | | | 38.9 | | | 53.5 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 19.1 | | 44.0 | 8.3 | | | 38.9 | | | 53.5 | |
| LOS | | B | | D | A | | | D | | | D | |
| Approach Delay | | 19.1 | | | 38.8 | | | 38.9 | | | 53.5 | |
| Approach LOS | | B | | | D | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 639 | 35 | | | 68 | | | 155 | |
| Queue Length 95th (ft) | | 22 | | #1080 | 83 | | | 103 | | | 226 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 183 | | 1073 | 1112 | | | 409 | | | 426 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.37 | | 0.97 | 0.16 | | | 0.28 | | | 0.58 | |

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 40.2 Intersection LOS: D
Intersection Capacity Utilization 79.0% ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



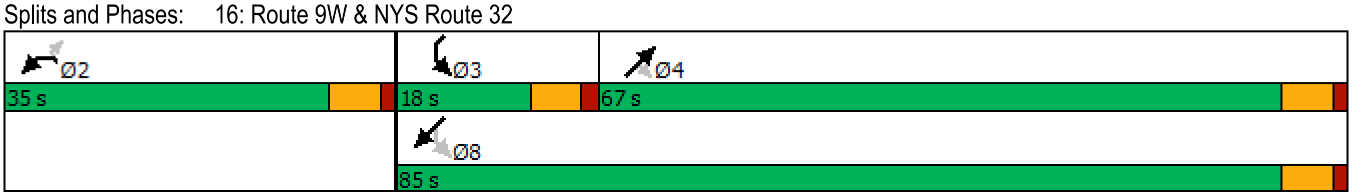
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 306 | 157 | 1081 | 99 | 116 | 1439 |
| Future Volume (vph) | 306 | 157 | 1081 | 99 | 116 | 1439 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1719 | 1455 | 3471 | 1509 | 1583 | 3539 |
| Flt Permitted | 0.950 | | | | 0.088 | |
| Satd. Flow (perm) | 1719 | 1455 | 3471 | 1509 | 147 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 81 | | 96 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 11% | 4% | 7% | 14% | 2% |
| Adj. Flow (vph) | 336 | 173 | 1188 | 109 | 123 | 1531 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 336 | 173 | 1188 | 109 | 123 | 1531 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 35.0 | 35.0 | 67.0 | 67.0 | 18.0 | 85.0 |
| Total Split (%) | 29.2% | 29.2% | 55.8% | 55.8% | 15.0% | 70.8% |
| Maximum Green (s) | 29.0 | 29.0 | 61.0 | 61.0 | 12.0 | 79.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 29.4 | 29.4 | 41.6 | 41.6 | 56.6 | 56.6 |
| Actuated g/C Ratio | 0.30 | 0.30 | 0.42 | 0.42 | 0.58 | 0.58 |
| v/c Ratio | 0.65 | 0.35 | 0.81 | 0.16 | 0.57 | 0.75 |
| Control Delay | 39.6 | 18.9 | 29.3 | 4.9 | 24.4 | 17.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.6 | 18.9 | 29.3 | 4.9 | 24.4 | 17.8 |
| LOS | D | B | C | A | C | B |
| Approach Delay | 32.6 | | 27.3 | | | 18.2 |
| Approach LOS | C | | C | | | B |
| Queue Length 50th (ft) | 179 | 42 | 329 | 5 | 32 | 345 |
| Queue Length 95th (ft) | #369 | 122 | 425 | 34 | 85 | 419 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 514 | 492 | 2186 | 986 | 262 | 2887 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.65 | 0.35 | 0.54 | 0.11 | 0.47 | 0.53 |

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 98.1
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 23.7 Intersection LOS: C
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32



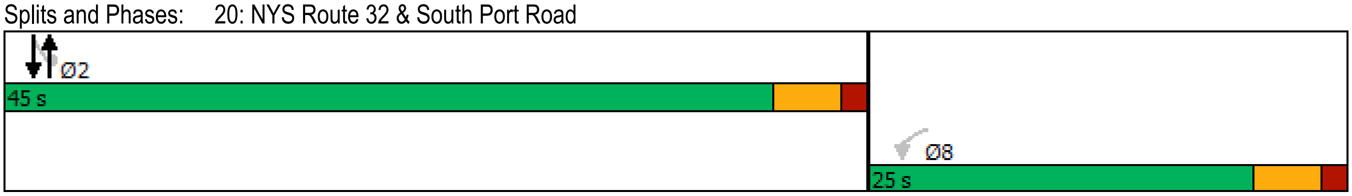
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 128 | 168 | 253 | 41 | 82 | 930 |
| Future Volume (vph) | 128 | 168 | 253 | 41 | 82 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.923 | | 0.981 | | | |
| Flt Protected | 0.979 | | | | | 0.996 |
| Satd. Flow (prot) | 1581 | 0 | 1637 | 0 | 0 | 1755 |
| Flt Permitted | 0.979 | | | | | 0.934 |
| Satd. Flow (perm) | 1581 | 0 | 1637 | 0 | 0 | 1646 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 94 | | 19 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 362 |
| Travel Time (s) | 9.6 | | 8.5 | | | 8.2 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 8% | 9% | 8% | 50% | 40% | 5% |
| Adj. Flow (vph) | 151 | 198 | 351 | 57 | 87 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 349 | 0 | 408 | 0 | 0 | 1076 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 0 | | | 0 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | Perm | NA |
| Protected Phases | | | 2 | | | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 2 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | 25.0 | | 45.0 | | 45.0 | 45.0 |
| Total Split (%) | 35.7% | | 64.3% | | 64.3% | 64.3% |
| Maximum Green (s) | 20.0 | | 40.0 | | 40.0 | 40.0 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | Max | | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | 0 | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 15.4 | | 40.5 | | | 40.5 |
| Actuated g/C Ratio | 0.23 | | 0.61 | | | 0.61 |
| v/c Ratio | 0.79 | | 0.40 | | | 1.07 |
| Control Delay | 30.7 | | 8.5 | | | 65.2 |
| Queue Delay | 0.0 | | 0.0 | | | 0.0 |
| Total Delay | 30.7 | | 8.5 | | | 65.2 |
| LOS | C | | A | | | E |
| Approach Delay | 30.7 | | 8.5 | | | 65.2 |
| Approach LOS | C | | A | | | E |
| Queue Length 50th (ft) | 95 | | 72 | | | ~503 |
| Queue Length 95th (ft) | 166 | | 103 | | | #777 |
| Internal Link Dist (ft) | 341 | | 295 | | | 282 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 546 | | 1012 | | | 1010 |
| Starvation Cap Reductn | 0 | | 0 | | | 0 |
| Spillback Cap Reductn | 0 | | 0 | | | 0 |
| Storage Cap Reductn | 0 | | 0 | | | 0 |
| Reduced v/c Ratio | 0.64 | | 0.40 | | | 1.07 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 65.9
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 46.0 Intersection LOS: D
Intersection Capacity Utilization 99.2% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 6.2 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 69 | 283 | 204 | 142 | 250 | 91 |
| Future Vol, veh/h | 69 | 283 | 204 | 142 | 250 | 91 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 82 | 82 | 74 | 74 | 85 | 85 |
| Heavy Vehicles, % | 12 | 3 | 9 | 8 | 4 | 8 |
| Mvmt Flow | 84 | 345 | 276 | 192 | 294 | 107 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1092 | 348 | 294 | 0 | - | 0 |
| Stage 1 | 348 | - | - | - | - | - |
| Stage 2 | 744 | - | - | - | - | - |
| Critical Hdwy | 6.52 | 6.23 | 4.19 | - | - | - |
| Critical Hdwy Stg 1 | 5.52 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.52 | - | - | - | - | - |
| Follow-up Hdwy | 3.608 | 3.327 | 2.281 | - | - | - |
| Pot Cap-1 Maneuver | 227 | 693 | 1229 | - | - | - |
| Stage 1 | 693 | - | - | - | - | - |
| Stage 2 | 452 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 170 | 693 | 1229 | - | - | - |
| Mov Cap-2 Maneuver | 170 | - | - | - | - | - |
| Stage 1 | 519 | - | - | - | - | - |
| Stage 2 | 452 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 13.2 | 5.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | SWT | SWR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1229 | - | 862 | - | - |
| HCM Lane V/C Ratio | 0.224 | - | 0.498 | - | - |
| HCM Control Delay (s) | 8.8 | 0 | 13.2 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 2.8 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 2.8 | | | | | |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 36 | 216 | 412 | 285 | 59 | 40 |
| Future Vol, veh/h | 36 | 216 | 412 | 285 | 59 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 77 | 77 | 84 | 84 | 81 | 81 |
| Heavy Vehicles, % | 4 | 0 | 0 | 5 | 5 | 1 |
| Mvmt Flow | 47 | 281 | 490 | 339 | 73 | 49 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 829 | 0 | - | 0 | 1035 | 660 |
| Stage 1 | - | - | - | - | 660 | - |
| Stage 2 | - | - | - | - | 375 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.45 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.545 | 3.309 |
| Pot Cap-1 Maneuver | 794 | - | - | - | 254 | 465 |
| Stage 1 | - | - | - | - | 508 | - |
| Stage 2 | - | - | - | - | 688 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 794 | - | - | - | 236 | 465 |
| Mov Cap-2 Maneuver | - | - | - | - | 236 | - |
| Stage 1 | - | - | - | - | 472 | - |
| Stage 2 | - | - | - | - | 688 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 1.4 | 0 | 25.6 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 295 | 794 | - | - | - |
| HCM Lane V/C Ratio | 0.414 | 0.059 | - | - | - |
| HCM Control Delay (s) | 25.6 | 9.8 | 0 | - | - |
| HCM Lane LOS | D | A | A | - | - |
| HCM 95th %tile Q(veh) | 1.9 | 0.2 | - | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 3.9 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 58 | 75 | 59 | 235 | 673 | 386 |
| Future Vol, veh/h | 58 | 75 | 59 | 235 | 673 | 386 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 125 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 88 | 88 | 91 | 91 |
| Heavy Vehicles, % | 29 | 14 | 10 | 7 | 7 | 2 |
| Mvmt Flow | 63 | 82 | 67 | 267 | 740 | 424 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1353 | 952 | 1164 | 0 | - | 0 |
| Stage 1 | 952 | - | - | - | - | - |
| Stage 2 | 401 | - | - | - | - | - |
| Critical Hdwy | 6.69 | 6.34 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.69 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.69 | - | - | - | - | - |
| Follow-up Hdwy | 3.761 | 3.426 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | 145 | 299 | 572 | - | - | - |
| Stage 1 | 336 | - | - | - | - | - |
| Stage 2 | 622 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 125 | 299 | 572 | - | - | - |
| Mov Cap-2 Maneuver | 125 | - | - | - | - | - |
| Stage 1 | 290 | - | - | - | - | - |
| Stage 2 | 622 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 38.3 | 2.4 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 572 | - | 125 | 299 | - | - |
| HCM Lane V/C Ratio | 0.117 | - | 0.504 | 0.273 | - | - |
| HCM Control Delay (s) | 12.1 | 0 | 60 | 21.5 | - | - |
| HCM Lane LOS | B | A | F | C | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | 2.3 | 1.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 3.3 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 86 | 32 | 105 | 149 | 16 | 70 |
| Future Vol, veh/h | 86 | 32 | 105 | 149 | 16 | 70 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 83 | 83 | 84 | 84 | 78 | 78 |
| Heavy Vehicles, % | 26 | 10 | 25 | 13 | 0 | 37 |
| Mvmt Flow | 104 | 39 | 125 | 177 | 21 | 90 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 346 | 214 | 0 | 0 | 302 | 0 |
| Stage 1 | 214 | - | - | - | - | - |
| Stage 2 | 132 | - | - | - | - | - |
| Critical Hdwy | 6.66 | 6.3 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.66 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.66 | - | - | - | - | - |
| Follow-up Hdwy | 3.734 | 3.39 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 605 | 806 | - | - | 1270 | - |
| Stage 1 | 768 | - | - | - | - | - |
| Stage 2 | 838 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 595 | 806 | - | - | 1270 | - |
| Mov Cap-2 Maneuver | 595 | - | - | - | - | - |
| Stage 1 | 768 | - | - | - | - | - |
| Stage 2 | 824 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.6 | 0 | 1.5 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 595 | 806 | 1270 | - |
| HCM Lane V/C Ratio | - | - | 0.174 | 0.048 | 0.016 | - |
| HCM Control Delay (s) | - | - | 12.3 | 9.7 | 7.9 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.6 | 0.1 | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 2 | 6 | 209 | 443 | 13 |
| Future Vol, veh/h | 7 | 2 | 6 | 209 | 443 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 30 | 80 | 88 | 63 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 14 | 4 | 20 | 261 | 503 | 21 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 815 | 514 | 524 | 0 | - | 0 |
| Stage 1 | 514 | - | - | - | - | - |
| Stage 2 | 301 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 350 | 564 | 1053 | - | - | - |
| Stage 1 | 605 | - | - | - | - | - |
| Stage 2 | 755 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 342 | 564 | 1053 | - | - | - |
| Mov Cap-2 Maneuver | 342 | - | - | - | - | - |
| Stage 1 | 592 | - | - | - | - | - |
| Stage 2 | 755 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.1 | 0.6 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1053 | - | 375 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | 0.048 | - | - |
| HCM Control Delay (s) | 8.5 | 0 | 15.1 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | - | - |

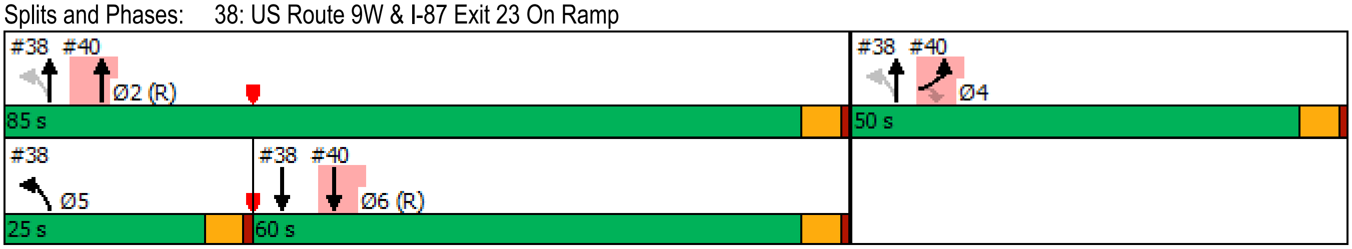
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 422 | 480 | 1245 | 559 | | |
| Future Volume (vph) | 0 | 0 | 422 | 480 | 1245 | 559 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.954 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1770 | 1863 | 3376 | 0 | | |
| Flt Permitted | | | 0.044 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 82 | 1863 | 3376 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 64 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 314 | | | 227 | 306 | | | |
| Travel Time (s) | 7.1 | | | 5.2 | 7.0 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.93 | 0.93 | 0.97 | 0.97 | | |
| Adj. Flow (vph) | 0 | 0 | 454 | 516 | 1284 | 576 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 454 | 516 | 1860 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 25.0 | | 60.0 | | 85.0 | 50.0 |
| Total Split (%) | | | 18.5% | | 44.4% | | 63% | 37% |
| Maximum Green (s) | | | 20.0 | | 55.0 | | 80.0 | 45.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 130.0 | 135.0 | 55.0 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.41 | | | |
| v/c Ratio | | | 0.80 | 0.28 | 1.32 | | | |
| Control Delay | | | 41.8 | 0.4 | 180.5 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Queue Delay | | | 40.7 | 0.0 | 0.1 | | | |
| Total Delay | | | 82.5 | 0.4 | 180.5 | | | |
| LOS | | | F | A | F | | | |
| Approach Delay | | | | 38.8 | 180.5 | | | |
| Approach LOS | | | | D | F | | | |
| Queue Length 50th (ft) | | | 329 | 0 | ~1092 | | | |
| Queue Length 95th (ft) | | | #601 | 0 | #1231 | | | |
| Internal Link Dist (ft) | 234 | | | 147 | 226 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 564 | 1863 | 1413 | | | |
| Starvation Cap Reductn | | | 139 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 32 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 1.07 | 0.28 | 1.35 | | | |

**Intersection Summary**

Area Type: Other
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 132.0 Intersection LOS: F
Intersection Capacity Utilization 107.1% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: US Route 9W & I-87 Exit 23 On Ramp



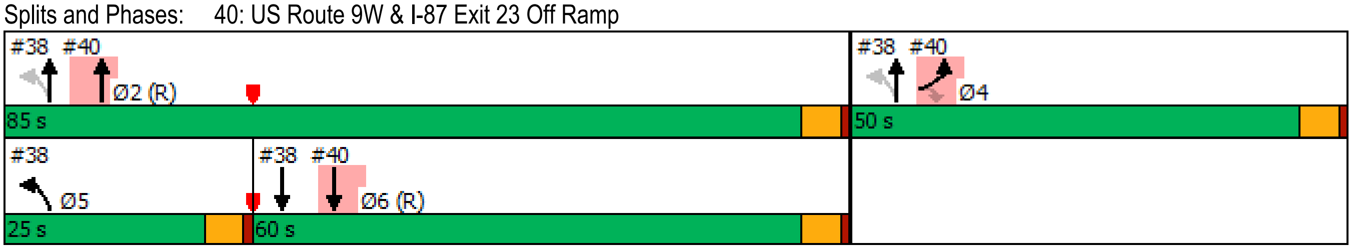
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 196 | 368 | 0 | 706 | 1245 | 0 | |
| Future Volume (vph) | 196 | 368 | 0 | 706 | 1245 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 301 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 298 | | | 384 | 227 | | |
| Travel Time (s) | 6.8 | | | 8.7 | 5.2 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.89 | 0.89 | 0.95 | 0.95 | |
| Adj. Flow (vph) | 202 | 379 | 0 | 793 | 1311 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 202 | 379 | 0 | 793 | 1311 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 50.0 | 50.0 | | 85.0 | 60.0 | | 25.0 |
| Total Split (%) | 37.0% | 37.0% | | 63.0% | 44.4% | | 19% |
| Maximum Green (s) | 45.0 | 45.0 | | 80.0 | 55.0 | | 20.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 26.2 | 26.2 | | 98.8 | 55.0 | | |
| Actuated g/C Ratio | 0.19 | 0.19 | | 0.73 | 0.41 | | |
| v/c Ratio | 0.59 | 0.69 | | 0.31 | 0.91 | | |
| Control Delay | 55.3 | 17.3 | | 7.4 | 11.0 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Queue Delay | 0.8 | 0.0 | | 0.0 | 46.6 | | |
| Total Delay | 56.1 | 17.3 | | 7.4 | 57.6 | | |
| LOS | E | B | | A | E | | |
| Approach Delay | 30.8 | | | 7.4 | 57.6 | | |
| Approach LOS | C | | | A | E | | |
| Queue Length 50th (ft) | 163 | 59 | | 112 | 81 | | |
| Queue Length 95th (ft) | 222 | 157 | | 185 | m62 | | |
| Internal Link Dist (ft) | 218 | | | 304 | 147 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 590 | 728 | | 2591 | 1441 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 385 | | |
| Spillback Cap Reductn | 180 | 0 | | 141 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.49 | 0.52 | | 0.32 | 1.24 | | |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 135 | |
| Actuated Cycle Length: 135 | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | |
| Natural Cycle: 130 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.32 | |
| Intersection Signal Delay: 37.0 | Intersection LOS: D |
| Intersection Capacity Utilization 107.1% | ICU Level of Service G |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 0 | 1 | 232 | 443 | 60 |
| Future Vol, veh/h | 11 | 0 | 1 | 232 | 443 | 60 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 46 | 46 | 89 | 89 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 7 | 4 | 0 |
| Mvmt Flow | 24 | 0 | 1 | 261 | 487 | 66 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 783 | 520 | 553 | 0 | - | 0 |
| Stage 1 | 520 | - | - | - | - | - |
| Stage 2 | 263 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 365 | 560 | 1027 | - | - | - |
| Stage 1 | 601 | - | - | - | - | - |
| Stage 2 | 786 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 365 | 560 | 1027 | - | - | - |
| Mov Cap-2 Maneuver | 365 | - | - | - | - | - |
| Stage 1 | 600 | - | - | - | - | - |
| Stage 2 | 786 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.6 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1027 | - | 365 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | 0.066 | - | - |
| HCM Control Delay (s) | 8.5 | 0 | 15.6 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.7 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 16 | 36 | 230 | 443 | 0 |
| Future Vol, veh/h | 3 | 16 | 36 | 230 | 443 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 87 | 87 | 88 | 88 | 75 | 75 |
| Heavy Vehicles, % | 3 | 7 | 4 | 0 | 0 | 7 |
| Mvmt Flow | 3 | 18 | 41 | 261 | 591 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 934 | 591 | 591 | 0 | - | 0 |
| Stage 1 | 591 | - | - | - | - | - |
| Stage 2 | 343 | - | - | - | - | - |
| Critical Hdwy | 6.43 | 6.27 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.527 | 3.363 | 2.236 | - | - | - |
| Pot Cap-1 Maneuver | 294 | 498 | 975 | - | - | - |
| Stage 1 | 551 | - | - | - | - | - |
| Stage 2 | 716 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 280 | 498 | 975 | - | - | - |
| Mov Cap-2 Maneuver | 280 | - | - | - | - | - |
| Stage 1 | 524 | - | - | - | - | - |
| Stage 2 | 716 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.5 | 1.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 975 | - | 443 | - | - |
| HCM Lane V/C Ratio | 0.042 | - | 0.049 | - | - |
| HCM Control Delay (s) | 8.9 | 0 | 13.5 | - | - |
| HCM Lane LOS | A | A | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 43 | 28 | 195 | 21 | 14 | 437 |
| Future Vol, veh/h | 43 | 28 | 195 | 21 | 14 | 437 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 80 | 80 | 85 | 85 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 54 | 35 | 229 | 25 | 15 | 475 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 747 | 242 | 0 | 0 | 254 | 0 |
| Stage 1 | 242 | - | - | - | - | - |
| Stage 2 | 505 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 383 | 802 | - | - | 1311 | - |
| Stage 1 | 803 | - | - | - | - | - |
| Stage 2 | 610 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 377 | 802 | - | - | 1311 | - |
| Mov Cap-2 Maneuver | 377 | - | - | - | - | - |
| Stage 1 | 803 | - | - | - | - | - |
| Stage 2 | 600 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.3 | 0 | 0.2 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 477 | 1311 | - |
| HCM Lane V/C Ratio | - | - | 0.186 | 0.012 | - |
| HCM Control Delay (s) | - | - | 14.3 | 7.8 | 0 |
| HCM Lane LOS | - | - | B | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.7 | 0 | - |

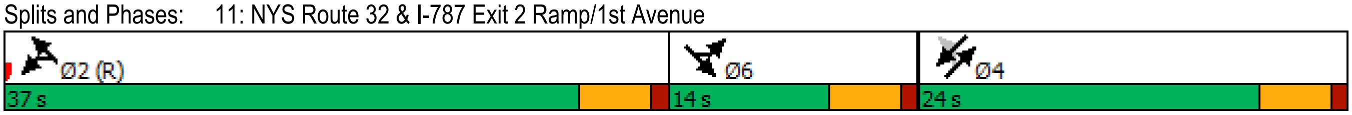
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 0 | 30 | 500 | 53 | 90 | 8 | 75 | 0 | 0 | 122 | 4 |
| Future Volume (vph) | 3 | 0 | 30 | 500 | 53 | 90 | 8 | 75 | 0 | 0 | 122 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.91 | | | | | | | | | | |
| Frt | | 0.878 | | | 0.906 | | | | | | 0.996 | |
| Flt Protected | | 0.995 | | 0.950 | | | | 0.995 | | | | |
| Satd. Flow (prot) | 0 | 1424 | 0 | 1444 | 1426 | 0 | 0 | 1645 | 0 | 0 | 1601 | 0 |
| Flt Permitted | | 0.995 | | 0.950 | | | | 0.962 | | | | |
| Satd. Flow (perm) | 0 | 1415 | 0 | 1444 | 1426 | 0 | 0 | 1591 | 0 | 0 | 1601 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 102 | | | 101 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 25% | 0% | 33% | 14% | 15% | 0% | 0% | 18% | 25% |
| Adj. Flow (vph) | 4 | 0 | 37 | 562 | 60 | 101 | 9 | 82 | 0 | 0 | 156 | 5 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 41 | 0 | 562 | 161 | 0 | 0 | 91 | 0 | 0 | 161 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 14.0 | 14.0 | | 24.0 | 24.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (s) | 14.0 | 14.0 | | 37.0 | 37.0 | | 24.0 | 24.0 | | | 24.0 | |
| Total Split (%) | 18.7% | 18.7% | | 49.3% | 49.3% | | 32.0% | 32.0% | | | 32.0% | |
| Maximum Green (s) | 9.0 | 9.0 | | 32.0 | 32.0 | | 19.0 | 19.0 | | | 19.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 5.5 | | 45.9 | 45.9 | | | 12.8 | | | 12.8 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.07 | | 0.61 | 0.61 | | | 0.17 | | | 0.17 | |
| v/c Ratio | | 0.21 | | 0.64 | 0.18 | | | 0.33 | | | 0.59 | |
| Control Delay | | 2.4 | | 17.0 | 4.7 | | | 29.2 | | | 36.1 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 2.4 | | 17.0 | 4.7 | | | 29.2 | | | 36.1 | |
| LOS | | A | | B | A | | | C | | | D | |
| Approach Delay | | 2.4 | | | 14.3 | | | 29.2 | | | 36.1 | |
| Approach LOS | | A | | | B | | | C | | | D | |
| Queue Length 50th (ft) | | 0 | | 174 | 12 | | | 38 | | | 69 | |
| Queue Length 95th (ft) | | 0 | | #389 | 45 | | | 71 | | | 98 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 260 | | 883 | 911 | | | 403 | | | 407 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.16 | | 0.64 | 0.18 | | | 0.23 | | | 0.40 | |

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 18.6  Intersection LOS: B
Intersection Capacity Utilization 53.3%  ICU Level of Service A
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 100 | 181 | 2035 | 176 | 148 | 821 |
| Future Volume (vph) | 100 | 181 | 2035 | 176 | 148 | 821 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1442 | 3505 | 1482 | 1388 | 3406 |
| Flt Permitted | 0.950 | | | | 0.054 | |
| Satd. Flow (perm) | 1530 | 1442 | 3505 | 1482 | 79 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 208 | | 113 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.87 | 0.87 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 12% | 3% | 9% | 30% | 6% |
| Adj. Flow (vph) | 115 | 208 | 2188 | 189 | 174 | 966 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 115 | 208 | 2188 | 189 | 174 | 966 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 18.0 | 18.0 | 74.0 | 74.0 | 23.0 | 97.0 |
| Total Split (%) | 15.7% | 15.7% | 64.3% | 64.3% | 20.0% | 84.3% |
| Maximum Green (s) | 12.0 | 12.0 | 68.0 | 68.0 | 17.0 | 91.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 12.0 | 12.0 | 68.1 | 68.1 | 87.6 | 87.6 |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.61 | 0.61 | 0.78 | 0.78 |
| v/c Ratio | 0.70 | 0.61 | 1.02 | 0.20 | 0.79 | 0.36 |
| Control Delay | 72.0 | 14.9 | 48.8 | 4.9 | 52.2 | 4.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 72.0 | 14.9 | 48.8 | 4.9 | 52.2 | 4.0 |
| LOS | E | B | D | A | D | A |
| Approach Delay | 35.2 | | 45.3 | | | 11.4 |
| Approach LOS | D | | D | | | B |
| Queue Length 50th (ft) | 82 | 0 | ~906 | 22 | 81 | 88 |
| Queue Length 95th (ft) | #164 | 65 | #1072 | 55 | 146 | 102 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 164 | 340 | 2137 | 947 | 261 | 2779 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.70 | 0.61 | 1.02 | 0.20 | 0.67 | 0.35 |

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 111.6
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 34.4 Intersection LOS: C
Intersection Capacity Utilization 85.0% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 9W & NYS Route 32

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 45 | 107 | 717 | 85 | 165 | 258 |
| Future Volume (vph) | 45 | 107 | 717 | 85 | 165 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 200 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | 0.986 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1128 | 967 | 1746 | 0 | 1421 | 1570 |
| Flt Permitted | 0.950 | | | | 0.143 | |
| Satd. Flow (perm) | 1128 | 967 | 1746 | 0 | 214 | 1570 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 143 | 14 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 1046 |
| Travel Time (s) | 9.6 | | 8.5 | | | 23.8 |
| Peak Hour Factor | 0.75 | 0.75 | 0.87 | 0.87 | 0.90 | 0.84 |
| Heavy Vehicles (%) | 60% | 67% | 6% | 18% | 27% | 21% |
| Adj. Flow (vph) | 60 | 143 | 824 | 98 | 183 | 307 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 60 | 143 | 922 | 0 | 183 | 307 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | Over | NA | | pm+pt | NA |
| Protected Phases | | 1 | 2 | | 1 | 6 |
| Permitted Phases | 8 | | | | 6 | 6 |
| Detector Phase | 8 | 1 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 3.5 | 5.0 | | 3.5 | 5.0 |
| Minimum Split (s) | 10.0 | 8.0 | 25.0 | | 8.0 | 25.0 |
| Total Split (s) | 12.0 | 13.0 | 45.0 | | 13.0 | 58.0 |
| Total Split (%) | 17.1% | 18.6% | 64.3% | | 18.6% | 82.9% |
| Maximum Green (s) | 7.5 | 8.5 | 40.0 | | 8.5 | 53.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.5 | | 1.0 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 5.0 | | 4.5 | 5.0 |
| Lead/Lag | | Lead | Lag | | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 7.1 | 7.7 | 45.6 | | 58.3 | 59.8 |
| Actuated g/C Ratio | 0.10 | 0.11 | 0.65 | | 0.83 | 0.85 |
| v/c Ratio | 0.53 | 0.61 | 0.81 | | 0.59 | 0.23 |
| Control Delay | 47.7 | 18.4 | 19.2 | | 13.5 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 47.7 | 18.4 | 19.2 | | 13.5 | 2.5 |
| LOS | D | B | B | | B | A |
| Approach Delay | 27.1 | | 19.2 | | | 6.6 |
| Approach LOS | C | | B | | | A |
| Queue Length 50th (ft) | 25 | 0 | 320 | | 15 | 29 |
| Queue Length 95th (ft) | 49 | 29 | #562 | | 67 | 46 |
| Internal Link Dist (ft) | 341 | | 295 | | | 966 |
| Turn Bay Length (ft) | | 200 | | | | |
| Base Capacity (vph) | 120 | 243 | 1142 | | 324 | 1341 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.59 | 0.81 | | 0.56 | 0.23 |

| Intersection Summary | |
|---|---|
| Area Type: Other | |
| Cycle Length: 70 | |
| Actuated Cycle Length: 70 | |
| Offset: 13 (19%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.81 | |
| Intersection Signal Delay: 16.4 | Intersection LOS: B |
| Intersection Capacity Utilization 67.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |
| # 95th percentile volume exceeds capacity, queue may be longer. | |
| Queue shown is maximum after two cycles. | |

Splits and Phases: 20: NYS Route 32 & South Port Road

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 149 | 59 | 63 | 654 | 224 | 79 |
| Future Volume (vph) | 149 | 59 | 63 | 654 | 224 | 79 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | 0 | 0 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.965 | |
| Flt Protected | 0.950 | | | 0.996 | | |
| Satd. Flow (prot) | 1597 | 1262 | 0 | 1721 | 1475 | 0 |
| Flt Permitted | 0.950 | | | 0.943 | | |
| Satd. Flow (perm) | 1597 | 1262 | 0 | 1629 | 1475 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 68 | | | 47 | |
| Link Speed (mph) | 45 | | | 55 | 55 | |
| Link Distance (ft) | 2072 | | | 957 | 365 | |
| Travel Time (s) | 31.4 | | | 11.9 | 4.5 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.86 | 0.86 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 13% | 28% | 20% | 9% | 23% | 28% |
| Adj. Flow (vph) | 171 | 68 | 73 | 760 | 249 | 88 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 171 | 68 | 0 | 833 | 337 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Turn Type | Prot | Perm | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 42.5 | 42.5 | 42.5 | |
| Total Split (%) | 34.6% | 34.6% | 65.4% | 65.4% | 65.4% | |
| Maximum Green (s) | 18.0 | 18.0 | 38.0 | 38.0 | 38.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | C-Min | C-Min | C-Min | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 12.2 | 12.2 | | 43.8 | 43.8 | |
| Actuated g/C Ratio | 0.19 | 0.19 | | 0.67 | 0.67 | |
| v/c Ratio | 0.57 | 0.23 | | 0.76 | 0.33 | |
| Control Delay | 31.1 | 8.0 | | 14.8 | 5.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 31.1 | 8.0 | | 14.8 | 5.5 | |
| LOS | C | A | | B | A | |
| Approach Delay | 24.5 | | | 14.8 | 5.5 | |
| Approach LOS | C | | | B | A | |
| Queue Length 50th (ft) | 62 | 0 | | 180 | 38 | |
| Queue Length 95th (ft) | 103 | 25 | | #451 | 94 | |
| Internal Link Dist (ft) | 1992 | | | 877 | 285 | |
| Turn Bay Length (ft) | 125 | | | | | |
| Base Capacity (vph) | 442 | 398 | | 1098 | 1010 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.39 | 0.17 | | 0.76 | 0.33 | |

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 21: NYS Route 144 & NYS Route 32

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 0 | 47 | 940 | 101 | 60 | 6 | 90 | 0 | 0 | 216 | 9 |
| Future Volume (vph) | 2 | 0 | 47 | 940 | 101 | 60 | 6 | 90 | 0 | 0 | 216 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 0.69 | | | | | | | | | | |
| Frt | | 0.871 | | | 0.944 | | | | | | 0.994 | |
| Flt Protected | | 0.998 | | 0.950 | | | | 0.997 | | | | |
| Satd. Flow (prot) | 0 | 1083 | 0 | 1719 | 1754 | 0 | 0 | 1688 | 0 | 0 | 1715 | 0 |
| Flt Permitted | | 0.998 | | 0.950 | | | | 0.975 | | | | |
| Satd. Flow (perm) | 0 | 1071 | 0 | 1719 | 1754 | 0 | 0 | 1651 | 0 | 0 | 1715 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 80 | | | 57 | | | | | | 2 | |
| Link Speed (mph) | | 25 | | | 25 | | | 25 | | | 25 | |
| Link Distance (ft) | | 181 | | | 194 | | | 438 | | | 445 | |
| Travel Time (s) | | 4.9 | | | 5.3 | | | 11.9 | | | 12.1 | |
| Confl. Peds. (#/hr) | 19 | | 19 | | | | | | | | | |
| Peak Hour Factor | 0.73 | 0.73 | 0.73 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 0% | 0% | 7% | 5% | 0% | 6% | 0% | 13% | 0% | 0% | 10% | 13% |
| Adj. Flow (vph) | 3 | 0 | 64 | 1044 | 112 | 67 | 7 | 108 | 0 | 0 | 235 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 67 | 0 | 1044 | 179 | 0 | 0 | 115 | 0 | 0 | 245 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 0 | | | 12 | | | 0 | | | 0 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | | Split | NA | | Perm | NA | | | NA | |
| Protected Phases | 6 | 6 | | 2 | 2 | | | 4 | | | 4 | |
| Permitted Phases | | | | | | | 4 | | | | | |
| Detector Phase | 6 | 6 | | 2 | 2 | | 4 | 4 | | | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 3.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | |
| Minimum Split (s) | 8.0 | 8.0 | | 24.0 | 24.0 | | 23.0 | 23.0 | | | 23.0 | |
| Total Split (s) | 8.0 | 8.0 | | 62.0 | 62.0 | | 25.0 | 25.0 | | | 25.0 | |
| Total Split (%) | 8.4% | 8.4% | | 65.3% | 65.3% | | 26.3% | 26.3% | | | 26.3% | |
| Maximum Green (s) | 3.0 | 3.0 | | 57.0 | 57.0 | | 20.0 | 20.0 | | | 20.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | | 5.0 | | 5.0 | 5.0 | | | 5.0 | | | 5.0 | |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | |
| Recall Mode | None | None | | C-Max | C-Max | | None | None | | | None | |
| Act Effct Green (s) | | 3.0 | | 61.3 | 61.3 | | | 17.3 | | | 17.3 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Actuated g/C Ratio | | 0.03 | | 0.65 | 0.65 | | | 0.18 | | | 0.18 | |
| v/c Ratio | | 0.60 | | 0.94 | 0.16 | | | 0.38 | | | 0.78 | |
| Control Delay | | 31.8 | | 34.8 | 5.7 | | | 37.2 | | | 54.1 | |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | | 31.8 | | 34.8 | 5.7 | | | 37.2 | | | 54.1 | |
| LOS | | C | | C | A | | | D | | | D | |
| Approach Delay | | 31.8 | | | 30.6 | | | 37.2 | | | 54.1 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Queue Length 50th (ft) | | 0 | | 566 | 28 | | | 60 | | | 139 | |
| Queue Length 95th (ft) | | 18 | | #908 | 58 | | | 100 | | | #221 | |
| Internal Link Dist (ft) | | 101 | | | 114 | | | 358 | | | 365 | |
| Turn Bay Length (ft) | | | | | | | | | | | | |
| Base Capacity (vph) | | 111 | | 1109 | 1152 | | | 347 | | | 362 | |
| Starvation Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Spillback Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Storage Cap Reductn | | 0 | | 0 | 0 | | | 0 | | | 0 | |
| Reduced v/c Ratio | | 0.60 | | 0.94 | 0.16 | | | 0.33 | | | 0.68 | |

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 95

Offset: 0 (0%), Referenced to phase 2:NWTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

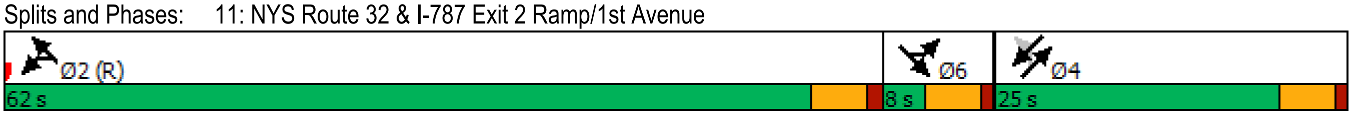
Intersection Signal Delay: 34.6 Intersection LOS: C

Intersection Capacity Utilization 79.0% ICU Level of Service D

Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: NYS Route 32 & I-787 Exit 2 Ramp/1st Avenue



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 128 | 168 | 253 | 41 | 82 | 930 |
| Future Volume (vph) | 128 | 168 | 253 | 41 | 82 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 200 | | 0 | 0 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | 0.981 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1671 | 1482 | 1637 | 0 | 1289 | 1810 |
| Flt Permitted | 0.950 | | | | 0.000 | |
| Satd. Flow (perm) | 1671 | 1482 | 1637 | 0 | 0 | 1810 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 198 | 16 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 1049 |
| Travel Time (s) | 9.6 | | 8.5 | | | 23.8 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 8% | 9% | 8% | 50% | 40% | 5% |
| Adj. Flow (vph) | 151 | 198 | 351 | 57 | 87 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 151 | 198 | 408 | 0 | 87 | 989 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | Over | NA | | pm+pt | NA |
| Protected Phases | | 5! | 2! | | 5! | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | 5 | 2 | | 5 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 9.5 | 23.0 | | 9.5 | 23.0 |
| Total Split (s) | 31.0 | 36.5 | 36.5 | | 36.5 | 36.5 |
| Total Split (%) | 45.9% | 54.1% | 54.1% | | 54.1% | 54.1% |
| Maximum Green (s) | 26.0 | 32.0 | 31.5 | | 32.0 | 31.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.0 | 1.5 | | 1.0 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 4.5 | 5.0 | | 4.5 | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |

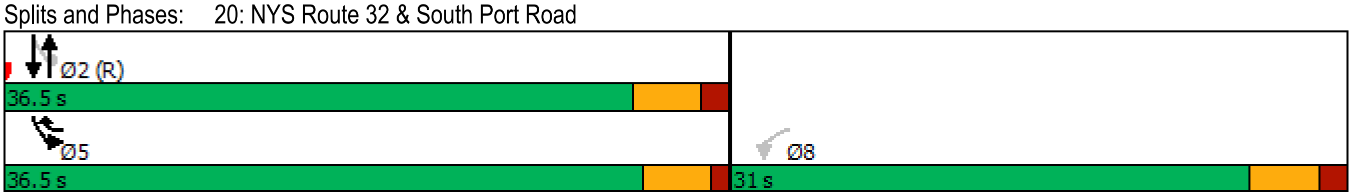
 

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | | 7.0 | | | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | | 0 |
| Act Effct Green (s) | 11.4 | 49.8 | 49.4 | | 49.8 | 49.4 |
| Actuated g/C Ratio | 0.17 | 0.74 | 0.73 | | 0.74 | 0.73 |
| v/c Ratio | 0.53 | 0.17 | 0.34 | | 0.09 | 0.75 |
| Control Delay | 31.8 | 1.3 | 5.7 | | 4.6 | 13.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 31.8 | 1.3 | 5.7 | | 4.6 | 13.7 |
| LOS | C | A | A | | A | B |
| Approach Delay | 14.5 | | 5.7 | | | 12.9 |
| Approach LOS | B | | A | | | B |
| Queue Length 50th (ft) | 58 | 0 | 55 | | 10 | 233 |
| Queue Length 95th (ft) | 94 | 17 | 88 | | 28 | #596 |
| Internal Link Dist (ft) | 341 | | 295 | | | 969 |
| Turn Bay Length (ft) | | 200 | | | | |
| Base Capacity (vph) | 643 | 1146 | 1203 | | 951 | 1326 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.23 | 0.17 | 0.34 | | 0.09 | 0.75 |

**Intersection Summary**

Area Type: Other
Cycle Length: 67.5
Actuated Cycle Length: 67.5
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 11.6 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 58 | 75 | 59 | 235 | 673 | 386 |
| Future Volume (vph) | 58 | 75 | 59 | 235 | 673 | 386 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | 0 | 0 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.951 | |
| Flt Protected | 0.950 | | | 0.990 | | |
| Satd. Flow (prot) | 1399 | 1417 | 0 | 1748 | 1718 | 0 |
| Flt Permitted | 0.950 | | | 0.573 | | |
| Satd. Flow (perm) | 1399 | 1417 | 0 | 1012 | 1718 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 82 | | | 76 | |
| Link Speed (mph) | 45 | | | 55 | 55 | |
| Link Distance (ft) | 2072 | | | 957 | 365 | |
| Travel Time (s) | 31.4 | | | 11.9 | 4.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.88 | 0.88 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 29% | 14% | 10% | 7% | 7% | 2% |
| Adj. Flow (vph) | 63 | 82 | 67 | 267 | 740 | 424 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 63 | 82 | 0 | 334 | 1164 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Turn Type | Prot | Perm | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 42.5 | 42.5 | 42.5 | |
| Total Split (%) | 34.6% | 34.6% | 65.4% | 65.4% | 65.4% | |
| Maximum Green (s) | 18.0 | 18.0 | 38.0 | 38.0 | 38.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | C-Min | C-Min | C-Min | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 8.4 | 8.4 | | 50.5 | 50.5 | |
| Actuated g/C Ratio | 0.13 | 0.13 | | 0.78 | 0.78 | |
| v/c Ratio | 0.35 | 0.32 | | 0.43 | 0.86 | |
| Control Delay | 30.3 | 10.2 | | 5.9 | 16.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 30.3 | 10.2 | | 5.9 | 16.9 | |
| LOS | C | B | | A | B | |
| Approach Delay | 18.9 | | | 5.9 | 16.9 | |
| Approach LOS | B | | | A | B | |
| Queue Length 50th (ft) | 23 | 0 | | 39 | 256 | |
| Queue Length 95th (ft) | 53 | 32 | | 98 | #696 | |
| Internal Link Dist (ft) | 1992 | | | 877 | 285 | |
| Turn Bay Length (ft) | 125 | | | | | |
| Base Capacity (vph) | 387 | 451 | | 785 | 1351 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.16 | 0.18 | | 0.43 | 0.86 | |

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 14.8 — Intersection LOS: B
Intersection Capacity Utilization 75.0% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 21: NYS Route 144 & NYS Route 32

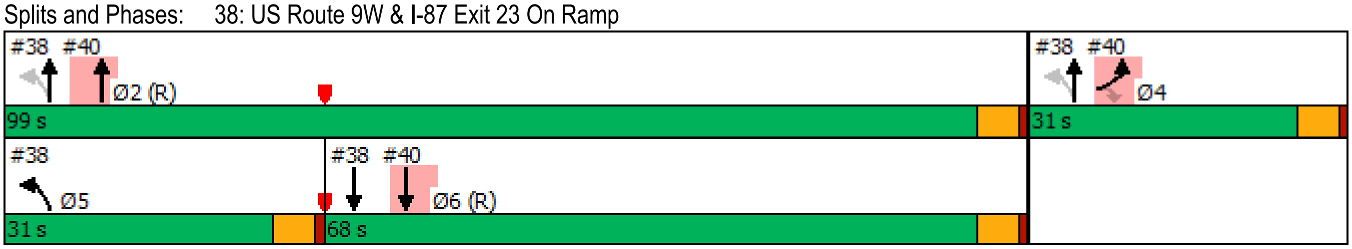
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 422 | 480 | 1246 | 559 | | |
| Future Volume (vph) | 0 | 0 | 422 | 480 | 1246 | 559 | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | | |
| Frt | | | | | 0.954 | | | |
| Flt Protected | | | 0.950 | | | | | |
| Satd. Flow (prot) | 0 | 0 | 1770 | 1863 | 3376 | 0 | | |
| Flt Permitted | | | 0.042 | | | | | |
| Satd. Flow (perm) | 0 | 0 | 78 | 1863 | 3376 | 0 | | |
| Right Turn on Red | | Yes | | | | Yes | | |
| Satd. Flow (RTOR) | | | | | 77 | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | | |
| Link Distance (ft) | 314 | | | 227 | 306 | | | |
| Travel Time (s) | 7.1 | | | 5.2 | 7.0 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.93 | 0.93 | 0.97 | 0.97 | | |
| Adj. Flow (vph) | 0 | 0 | 454 | 516 | 1285 | 576 | | |
| Shared Lane Traffic (%) | | | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 454 | 516 | 1861 | 0 | | |
| Enter Blocked Intersection | No | No | No | No | No | No | | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | | |
| Median Width(ft) | 0 | | | 12 | 12 | | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | | |
| Two way Left Turn Lane | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | | |
| Turn Type | | | pm+pt | NA | NA | | | |
| Protected Phases | | | 5 | 2 4 | 6 | | 2 | 4 |
| Permitted Phases | | | 2 4 | 2 | | | | |
| Detector Phase | | | 5 | 2 4 | 6 | | | |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | | | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | | | 10.0 | | 23.0 | | 23.0 | 23.0 |
| Total Split (s) | | | 31.0 | | 68.0 | | 99.0 | 31.0 |
| Total Split (%) | | | 23.8% | | 52.3% | | 76% | 24% |
| Maximum Green (s) | | | 26.0 | | 63.0 | | 94.0 | 26.0 |
| Yellow Time (s) | | | 4.0 | | 4.0 | | 4.0 | 4.0 |
| All-Red Time (s) | | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | 0.0 | | 0.0 | | | |
| Total Lost Time (s) | | | 5.0 | | 5.0 | | | |
| Lead/Lag | | | Lead | | Lag | | | |
| Lead-Lag Optimize? | | | Yes | | Yes | | | |
| Vehicle Extension (s) | | | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | | | None | | C-Max | | C-Max | None |
| Act Effct Green (s) | | | 125.0 | 130.0 | 63.0 | | | |
| Actuated g/C Ratio | | | 0.96 | 1.00 | 0.48 | | | |
| v/c Ratio | | | 0.99 | 0.28 | 1.11 | | | |
| Control Delay | | | 74.0 | 0.4 | 90.3 | | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø2 | Ø4 |
|---|---|---|---|---|---|---|---|---|
| Queue Delay | | | 36.3 | 0.0 | 0.0 | | | |
| Total Delay | | | 110.3 | 0.4 | 90.3 | | | |
| LOS | | | F | A | F | | | |
| Approach Delay | | | | 51.8 | 90.3 | | | |
| Approach LOS | | | | D | F | | | |
| Queue Length 50th (ft) | | | ~376 | 0 | ~926 | | | |
| Queue Length 95th (ft) | | | #597 | 0 | #1066 | | | |
| Internal Link Dist (ft) | 234 | | | 147 | 226 | | | |
| Turn Bay Length (ft) | | | | | | | | |
| Base Capacity (vph) | | | 457 | 1851 | 1675 | | | |
| Starvation Cap Reductn | | | 97 | 0 | 0 | | | |
| Spillback Cap Reductn | | | 0 | 0 | 6 | | | |
| Storage Cap Reductn | | | 0 | 0 | 0 | | | |
| Reduced v/c Ratio | | | 1.26 | 0.28 | 1.12 | | | |

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 77.1 Intersection LOS: E
Intersection Capacity Utilization 107.1% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: US Route 9W & I-87 Exit 23 On Ramp



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 196 | 368 | 0 | 706 | 1246 | 0 | |
| Future Volume (vph) | 196 | 368 | 0 | 706 | 1246 | 0 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | |
| Frt | | 0.850 | | | | | |
| Flt Protected | 0.950 | | | | | | |
| Satd. Flow (prot) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Flt Permitted | 0.950 | | | | | | |
| Satd. Flow (perm) | 1770 | 1583 | 0 | 3539 | 3539 | 0 | |
| Right Turn on Red | | Yes | | | | Yes | |
| Satd. Flow (RTOR) | | 338 | | | | | |
| Link Speed (mph) | 30 | | | 30 | 30 | | |
| Link Distance (ft) | 298 | | | 384 | 227 | | |
| Travel Time (s) | 6.8 | | | 8.7 | 5.2 | | |
| Peak Hour Factor | 0.97 | 0.97 | 0.89 | 0.89 | 0.95 | 0.95 | |
| Adj. Flow (vph) | 202 | 379 | 0 | 793 | 1312 | 0 | |
| Shared Lane Traffic (%) | | | | | | | |
| Lane Group Flow (vph) | 202 | 379 | 0 | 793 | 1312 | 0 | |
| Enter Blocked Intersection | No | No | No | No | No | No | |
| Lane Alignment | Left | Right | Left | Left | Left | Right | |
| Median Width(ft) | 12 | | | 0 | 0 | | |
| Link Offset(ft) | 0 | | | 0 | 0 | | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | | |
| Two way Left Turn Lane | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 | |
| Turn Type | Prot | Perm | | NA | NA | | |
| Protected Phases | 4 | | | 2 | 6 | | 5 |
| Permitted Phases | | 4 | | | | | |
| Detector Phase | 4 | 4 | | 2 | 6 | | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | | 23.0 | 23.0 | | 10.0 |
| Total Split (s) | 31.0 | 31.0 | | 99.0 | 68.0 | | 31.0 |
| Total Split (%) | 23.8% | 23.8% | | 76.2% | 52.3% | | 24% |
| Maximum Green (s) | 26.0 | 26.0 | | 94.0 | 63.0 | | 26.0 |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | |
| Total Lost Time (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | |
| Lead/Lag | | | | | Lag | | Lead |
| Lead-Lag Optimize? | | | | | Yes | | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Recall Mode | None | None | | C-Max | C-Max | | None |
| Act Effct Green (s) | 22.6 | 22.6 | | 97.4 | 63.0 | | |
| Actuated g/C Ratio | 0.17 | 0.17 | | 0.75 | 0.48 | | |
| v/c Ratio | 0.66 | 0.68 | | 0.30 | 0.77 | | |
| Control Delay | 60.0 | 14.3 | | 5.9 | 6.3 | | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|
| Queue Delay | 12.0 | 0.0 | | 0.0 | 30.2 | | |
| Total Delay | 72.0 | 14.3 | | 6.0 | 36.5 | | |
| LOS | E | B | | A | D | | |
| Approach Delay | 34.3 | | | 6.0 | 36.5 | | |
| Approach LOS | C | | | A | D | | |
| Queue Length 50th (ft) | 156 | 29 | | 109 | 68 | | |
| Queue Length 95th (ft) | 239 | 133 | | 137 | m62 | | |
| Internal Link Dist (ft) | 218 | | | 304 | 147 | | |
| Turn Bay Length (ft) | | | | | | | |
| Base Capacity (vph) | 354 | 587 | | 2650 | 1715 | | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 471 | | |
| Spillback Cap Reductn | 125 | 0 | | 245 | 0 | | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | |
| Reduced v/c Ratio | 0.88 | 0.65 | | 0.33 | 1.05 | | |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

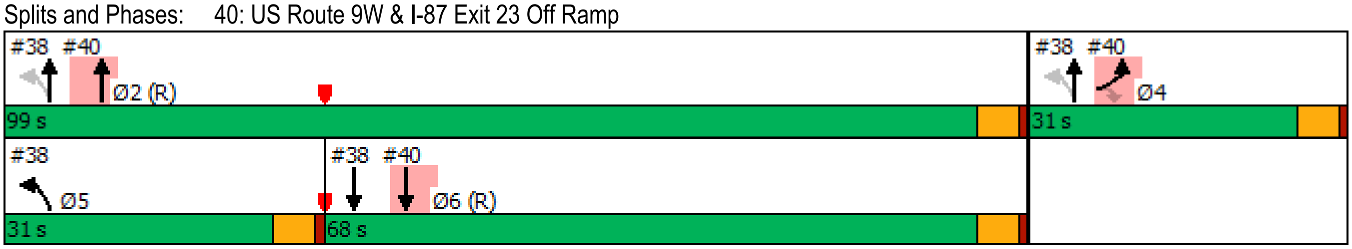
Intersection Signal Delay: 27.0 Intersection LOS: C

Intersection Capacity Utilization 107.1% ICU Level of Service G

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: US Route 9W & I-87 Exit 23 Off Ramp



| Intersection | |
|---|---|
| Int Delay, s/veh | 10.2 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 200 | 7 | 47 | 109 | 43 | 64 |
| Future Vol, veh/h | 200 | 7 | 47 | 109 | 43 | 64 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 65 | 65 | 84 | 84 | 62 | 62 |
| Heavy Vehicles, % | 42 | 17 | 36 | 65 | 0 | 22 |
| Mvmt Flow | 308 | 11 | 56 | 130 | 69 | 103 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 362 | 121 | 0 | 0 | 186 | 0 |
| Stage 1 | 121 | - | - | - | - | - |
| Stage 2 | 241 | - | - | - | - | - |
| Critical Hdwy | 6.82 | 6.37 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.82 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.82 | - | - | - | - | - |
| Follow-up Hdwy | 3.878 | 3.453 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 565 | 891 | - | - | 1401 | - |
| Stage 1 | 814 | - | - | - | - | - |
| Stage 2 | 714 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 537 | 891 | - | - | 1401 | - |
| Mov Cap-2 Maneuver | 537 | - | - | - | - | - |
| Stage 1 | 814 | - | - | - | - | - |
| Stage 2 | 679 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 19.9 | 0 | 3.1 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 537 | 891 | 1401 | - |
| HCM Lane V/C Ratio | - | - | 0.573 | 0.012 | 0.05 | - |
| HCM Control Delay (s) | - | - | 20.3 | 9.1 | 7.7 | - |
| HCM Lane LOS | - | - | C | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 3.6 | 0 | 0.2 | - |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 102 | 82 | 717 | 148 | 139 | 258 |
| Future Volume (vph) | 102 | 82 | 717 | 148 | 139 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 200 | | 0 | 200 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | 0.977 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 992 | 1029 | 1628 | 0 | 1262 | 1570 |
| Flt Permitted | 0.950 | | | | 0.083 | |
| Satd. Flow (perm) | 992 | 1029 | 1628 | 0 | 110 | 1570 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 91 | 21 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 1046 |
| Travel Time (s) | 9.6 | | 8.5 | | | 23.8 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 82% | 57% | 6% | 53% | 43% | 21% |
| Adj. Flow (vph) | 113 | 91 | 797 | 164 | 154 | 287 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 113 | 91 | 961 | 0 | 154 | 287 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | pm+ov | NA | | pm+pt | NA |
| Protected Phases | | 1 | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | 6 |
| Detector Phase | 8 | 1 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 3.5 | 5.0 | | 3.5 | 5.0 |
| Minimum Split (s) | 10.0 | 8.0 | 25.0 | | 8.0 | 25.0 |
| Total Split (s) | 20.0 | 10.0 | 50.0 | | 10.0 | 60.0 |
| Total Split (%) | 25.0% | 12.5% | 62.5% | | 12.5% | 75.0% |
| Maximum Green (s) | 15.5 | 5.5 | 45.0 | | 5.5 | 55.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.5 | | 1.0 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 5.0 | | 4.5 | 5.0 |
| Lead/Lag | | Lead | Lag | | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 12.9 | 22.9 | 47.6 | | 60.5 | 61.0 |
| Actuated g/C Ratio | 0.16 | 0.29 | 0.60 | | 0.76 | 0.76 |
| v/c Ratio | 0.71 | 0.25 | 0.98 | | 0.78 | 0.24 |
| Control Delay | 55.3 | 6.8 | 44.8 | | 46.4 | 4.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 55.3 | 6.8 | 44.8 | | 46.4 | 4.7 |
| LOS | E | A | D | | D | A |
| Approach Delay | 33.7 | | 44.8 | | | 19.2 |
| Approach LOS | C | | D | | | B |
| Queue Length 50th (ft) | 53 | 0 | ~522 | | 39 | 44 |
| Queue Length 95th (ft) | #117 | 31 | #752 | | #159 | 78 |
| Internal Link Dist (ft) | 341 | | 295 | | | 966 |
| Turn Bay Length (ft) | | 200 | | | 200 | |
| Base Capacity (vph) | 192 | 359 | 976 | | 197 | 1196 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.25 | 0.98 | | 0.78 | 0.24 |

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 10 (13%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 36.4 Intersection LOS: D
Intersection Capacity Utilization 71.7% ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 32 & South Port Road

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 137 | 59 | 63 | 729 | 296 | 64 |
| Future Volume (vph) | 137 | 59 | 63 | 729 | 296 | 64 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | 0 | 0 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.976 | |
| Flt Protected | 0.950 | | | 0.996 | | |
| Satd. Flow (prot) | 1719 | 1262 | 0 | 1602 | 1350 | 0 |
| Flt Permitted | 0.950 | | | 0.942 | | |
| Satd. Flow (perm) | 1719 | 1262 | 0 | 1515 | 1350 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 68 | | | 29 | |
| Link Speed (mph) | 45 | | | 55 | 55 | |
| Link Distance (ft) | 2072 | | | 957 | 365 | |
| Travel Time (s) | 31.4 | | | 11.9 | 4.5 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.86 | 0.86 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 5% | 28% | 20% | 18% | 43% | 11% |
| Adj. Flow (vph) | 157 | 68 | 73 | 848 | 329 | 71 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 157 | 68 | 0 | 921 | 400 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Turn Type | Prot | Perm | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 42.5 | 42.5 | 42.5 | |
| Total Split (%) | 34.6% | 34.6% | 65.4% | 65.4% | 65.4% | |
| Maximum Green (s) | 18.0 | 18.0 | 38.0 | 38.0 | 38.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | C-Min | C-Min | C-Min | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 11.2 | 11.2 | | 48.0 | 48.0 | |
| Actuated g/C Ratio | 0.17 | 0.17 | | 0.74 | 0.74 | |
| v/c Ratio | 0.53 | 0.25 | | 0.82 | 0.40 | |
| Control Delay | 30.5 | 8.7 | | 18.4 | 6.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 30.5 | 8.7 | | 18.4 | 6.0 | |
| LOS | C | A | | B | A | |
| Approach Delay | 23.9 | | | 18.4 | 6.0 | |
| Approach LOS | C | | | B | A | |
| Queue Length 50th (ft) | 57 | 0 | | 233 | 50 | |
| Queue Length 95th (ft) | 97 | 26 | | #543 | 122 | |
| Internal Link Dist (ft) | 1992 | | | 877 | 285 | |
| Turn Bay Length (ft) | 125 | | | | | |
| Base Capacity (vph) | 476 | 398 | | 1118 | 1004 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.33 | 0.17 | | 0.82 | 0.40 | |

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 144 & NYS Route 32

| Intersection | |
|---|---|
| Int Delay, s/veh | 25 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 623 | 277 | 62 | 170 | 28 |
| Future Vol, veh/h | 26 | 623 | 277 | 62 | 170 | 28 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 84 | 84 | 81 | 81 | 83 | 83 |
| Heavy Vehicles, % | 3 | 5 | 44 | 10 | 12 | 11 |
| Mvmt Flow | 31 | 742 | 342 | 77 | 205 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 419 | 0 | - | 0 | 1185 | 381 |
| Stage 1 | - | - | - | - | 381 | - |
| Stage 2 | - | - | - | - | 804 | - |
| Critical Hdwy | 4.13 | - | - | - | 6.52 | 6.31 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.52 | - |
| Follow-up Hdwy | 2.227 | - | - | - | 3.608 | 3.399 |
| Pot Cap-1 Maneuver | 1135 | - | - | - | ~ 199 | 647 |
| Stage 1 | - | - | - | - | 669 | - |
| Stage 2 | - | - | - | - | 424 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1135 | - | - | - | ~ 190 | 647 |
| Mov Cap-2 Maneuver | - | - | - | - | ~ 190 | - |
| Stage 1 | - | - | - | - | 638 | - |
| Stage 2 | - | - | - | - | 424 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 149.1 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 211 | 1135 | - | - | - |
| HCM Lane V/C Ratio | 1.131 | 0.027 | - | - | - |
| HCM Control Delay (s) | 149.1 | 8.3 | 0 | - | - |
| HCM Lane LOS | F | A | A | - | - |
| HCM 95th %tile Q(veh) | 11.3 | 0.1 | - | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 11 | 14 | 3 | 578 | 266 | 5 |
| Future Vol, veh/h | 11 | 14 | 3 | 578 | 266 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 42 | 81 | 75 | 72 | 94 | 25 |
| Heavy Vehicles, % | 0 | 8 | 0 | 20 | 42 | 0 |
| Mvmt Flow | 26 | 17 | 4 | 803 | 283 | 20 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1104 | 293 | 303 | 0 | - | 0 |
| Stage 1 | 293 | - | - | - | - | - |
| Stage 2 | 811 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.28 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.372 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 236 | 732 | 1269 | - | - | - |
| Stage 1 | 762 | - | - | - | - | - |
| Stage 2 | 440 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 235 | 732 | 1269 | - | - | - |
| Mov Cap-2 Maneuver | 235 | - | - | - | - | - |
| Stage 1 | 757 | - | - | - | - | - |
| Stage 2 | 440 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 17.9 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1269 | - | 322 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.135 | - | - |
| HCM Control Delay (s) | 7.8 | 0 | 17.9 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.5 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 63.7 |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 140 | 185 | 355 | 357 | 89 | 203 |
| Future Vol, veh/h | 140 | 185 | 355 | 357 | 89 | 203 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | 100 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 91 | 91 | 90 | 90 |
| Heavy Vehicles, % | 58 | 20 | 10 | 10 | 18 | 46 |
| Mvmt Flow | 156 | 206 | 390 | 392 | 99 | 226 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1384 | 212 | 99 | 0 | - | 0 |
| Stage 1 | 212 | - | - | - | - | - |
| Stage 2 | 1172 | - | - | - | - | - |
| Critical Hdwy | 6.98 | 6.4 | 4.2 | - | - | - |
| Critical Hdwy Stg 1 | 5.98 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.98 | - | - | - | - | - |
| Follow-up Hdwy | 4.022 | 3.48 | 2.29 | - | - | - |
| Pot Cap-1 Maneuver | ~ 120 | 785 | 1445 | - | - | - |
| Stage 1 | 707 | - | - | - | - | - |
| Stage 2 | 229 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 79 | 785 | 1445 | - | - | - |
| Mov Cap-2 Maneuver | ~ 79 | - | - | - | - | - |
| Stage 1 | 463 | - | - | - | - | - |
| Stage 2 | 229 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 249.8 | 4.2 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | EBLn2 | SWT | SWR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1445 | - | 79 | 785 | - | - |
| HCM Lane V/C Ratio | 0.27 | - | 1.969 | 0.262 | - | - |
| HCM Control Delay (s) | 8.4 | 0 | $ 565.1 | 11.2 | - | - |
| HCM Lane LOS | A | A | F | B | - | - |
| HCM 95th %tile Q(veh) | 1.1 | - | 13.8 | 1 | - | - |

| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 102 | 82 | 717 | 148 | 139 | 258 |
| Future Volume (vph) | 102 | 82 | 717 | 148 | 139 | 258 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 200 | | 0 | 200 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | 0.977 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 992 | 1029 | 1628 | 0 | 1262 | 1570 |
| Flt Permitted | 0.950 | | | | 0.083 | |
| Satd. Flow (perm) | 992 | 1029 | 1628 | 0 | 110 | 1570 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 91 | 21 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 1046 |
| Travel Time (s) | 9.6 | | 8.5 | | | 23.8 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 82% | 57% | 6% | 53% | 43% | 21% |
| Adj. Flow (vph) | 113 | 91 | 797 | 164 | 154 | 287 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 113 | 91 | 961 | 0 | 154 | 287 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | pm+ov | NA | | pm+pt | NA |
| Protected Phases | | 1 | 2 | | 1 | 6 |
| Permitted Phases | 8 | 8 | | | 6 | 6 |
| Detector Phase | 8 | 1 | 2 | | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 3.5 | 5.0 | | 3.5 | 5.0 |
| Minimum Split (s) | 10.0 | 8.0 | 25.0 | | 8.0 | 25.0 |
| Total Split (s) | 20.0 | 10.0 | 50.0 | | 10.0 | 60.0 |
| Total Split (%) | 25.0% | 12.5% | 62.5% | | 12.5% | 75.0% |
| Maximum Green (s) | 15.5 | 5.5 | 45.0 | | 5.5 | 55.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.5 | | 1.0 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 5.0 | | 4.5 | 5.0 |
| Lead/Lag | | Lead | Lag | | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 12.9 | 22.9 | 47.6 | | 60.5 | 61.0 |
| Actuated g/C Ratio | 0.16 | 0.29 | 0.60 | | 0.76 | 0.76 |
| v/c Ratio | 0.71 | 0.25 | 0.98 | | 0.78 | 0.24 |
| Control Delay | 55.3 | 6.8 | 44.8 | | 46.4 | 4.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 55.3 | 6.8 | 44.8 | | 46.4 | 4.7 |
| LOS | E | A | D | | D | A |
| Approach Delay | 33.7 | | 44.8 | | | 19.2 |
| Approach LOS | C | | D | | | B |
| Queue Length 50th (ft) | 53 | 0 | ~522 | | 39 | 44 |
| Queue Length 95th (ft) | #117 | 31 | #752 | | #159 | 78 |
| Internal Link Dist (ft) | 341 | | 295 | | | 966 |
| Turn Bay Length (ft) | | 200 | | | 200 | |
| Base Capacity (vph) | 192 | 359 | 976 | | 197 | 1196 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.25 | 0.98 | | 0.78 | 0.24 |

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 10 (13%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 36.4 — Intersection LOS: D
Intersection Capacity Utilization 71.7% — ICU Level of Service C
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 20: NYS Route 32 & South Port Road

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 209 | 59 | 63 | 654 | 224 | 136 |
| Future Volume (vph) | 209 | 59 | 63 | 654 | 224 | 136 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | 0 | 0 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.949 | |
| Flt Protected | 0.950 | | | 0.996 | | |
| Satd. Flow (prot) | 1245 | 1262 | 0 | 1721 | 1285 | 0 |
| Flt Permitted | 0.950 | | | 0.935 | | |
| Satd. Flow (perm) | 1245 | 1262 | 0 | 1616 | 1285 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 68 | | | 81 | |
| Link Speed (mph) | 45 | | | 55 | 55 | |
| Link Distance (ft) | 2072 | | | 957 | 365 | |
| Travel Time (s) | 31.4 | | | 11.9 | 4.5 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.86 | 0.86 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 45% | 28% | 20% | 9% | 23% | 69% |
| Adj. Flow (vph) | 240 | 68 | 73 | 760 | 249 | 151 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 240 | 68 | 0 | 833 | 400 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Turn Type | Prot | Perm | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 42.5 | 42.5 | 42.5 | |
| Total Split (%) | 34.6% | 34.6% | 65.4% | 65.4% | 65.4% | |
| Maximum Green (s) | 18.0 | 18.0 | 38.0 | 38.0 | 38.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | C-Min | C-Min | C-Min | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 15.9 | 15.9 | | 40.1 | 40.1 | |
| Actuated g/C Ratio | 0.24 | 0.24 | | 0.62 | 0.62 | |
| v/c Ratio | 0.79 | 0.19 | | 0.84 | 0.49 | |
| Control Delay | 42.4 | 6.8 | | 21.1 | 8.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 42.4 | 6.8 | | 21.1 | 8.3 | |
| LOS | D | A | | C | A | |
| Approach Delay | 34.5 | | | 21.1 | 8.3 | |
| Approach LOS | C | | | C | A | |
| Queue Length 50th (ft) | 85 | 0 | | 251 | 63 | |
| Queue Length 95th (ft) | #171 | 24 | | #464 | 127 | |
| Internal Link Dist (ft) | 1992 | | | 877 | 285 | |
| Turn Bay Length (ft) | 125 | | | | | |
| Base Capacity (vph) | 344 | 398 | | 995 | 822 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.70 | 0.17 | | 0.84 | 0.49 | |

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 20.5 Intersection LOS: C
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 21: NYS Route 144 & NYS Route 32

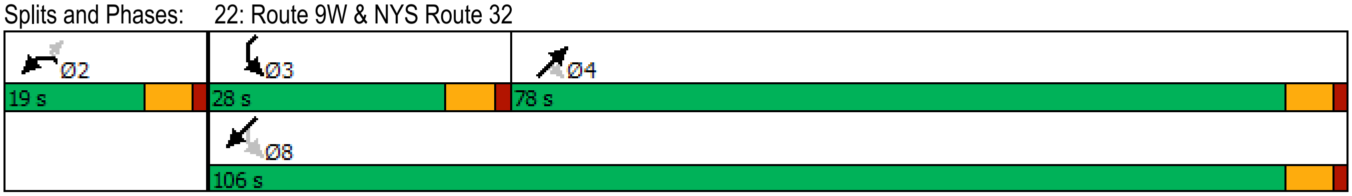
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 100 | 238 | 2035 | 176 | 208 | 821 |
| Future Volume (vph) | 100 | 238 | 2035 | 176 | 208 | 821 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1530 | 1162 | 3505 | 1482 | 1150 | 3406 |
| Flt Permitted | 0.950 | | | | 0.051 | |
| Satd. Flow (perm) | 1530 | 1162 | 3505 | 1482 | 62 | 3406 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 260 | | 100 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.90 | 0.90 | 0.93 | 0.93 | 0.85 | 0.85 |
| Heavy Vehicles (%) | 18% | 39% | 3% | 9% | 57% | 6% |
| Adj. Flow (vph) | 111 | 264 | 2188 | 189 | 245 | 966 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 111 | 264 | 2188 | 189 | 245 | 966 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 19.0 | 19.0 | 78.0 | 78.0 | 28.0 | 106.0 |
| Total Split (%) | 15.2% | 15.2% | 62.4% | 62.4% | 22.4% | 84.8% |
| Maximum Green (s) | 13.0 | 13.0 | 72.0 | 72.0 | 22.0 | 100.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 13.0 | 13.0 | 72.0 | 72.0 | 100.0 | 100.0 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.58 | 0.58 | 0.80 | 0.80 |
| v/c Ratio | 0.70 | 0.75 | 1.08 | 0.21 | 1.02 | 0.35 |
| Control Delay | 77.3 | 20.7 | 74.0 | 6.5 | 101.8 | 3.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 77.3 | 20.7 | 74.0 | 6.5 | 101.8 | 3.9 |
| LOS | E | C | E | A | F | A |
| Approach Delay | 37.4 | | 68.6 | | | 23.7 |
| Approach LOS | D | | E | | | C |
| Queue Length 50th (ft) | 88 | 3 | ~1042 | 31 | ~172 | 93 |
| Queue Length 95th (ft) | #176 | #116 | #1178 | 67 | #314 | 106 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 159 | 353 | 2018 | 896 | 241 | 2724 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.70 | 0.75 | 1.08 | 0.21 | 1.02 | 0.35 |

Intersection Summary

Area Type: Other
Cycle Length: 125
Actuated Cycle Length: 125
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 51.9 Intersection LOS: D
Intersection Capacity Utilization 88.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Route 9W & NYS Route 32



| Intersection | |
|---|---|
| Int Delay, s/veh | 3.9 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 111 | 32 | 104 | 169 | 16 | 68 |
| Future Vol, veh/h | 111 | 32 | 104 | 169 | 16 | 68 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | None |
| Storage Length | 0 | 50 | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 83 | 83 | 84 | 84 | 78 | 78 |
| Heavy Vehicles, % | 43 | 10 | 24 | 23 | 0 | 35 |
| Mvmt Flow | 134 | 39 | 124 | 201 | 21 | 87 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 354 | 225 | 0 | 0 | 325 | 0 |
| Stage 1 | 225 | - | - | - | - | - |
| Stage 2 | 129 | - | - | - | - | - |
| Critical Hdwy | 6.83 | 6.3 | - | - | 4.1 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.887 | 3.39 | - | - | 2.2 | - |
| Pot Cap-1 Maneuver | 569 | 795 | - | - | 1246 | - |
| Stage 1 | 725 | - | - | - | - | - |
| Stage 2 | 805 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 559 | 795 | - | - | 1246 | - |
| Mov Cap-2 Maneuver | 559 | - | - | - | - | - |
| Stage 1 | 725 | - | - | - | - | - |
| Stage 2 | 791 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.7 | 0 | 1.5 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 559 | 795 | 1246 | - |
| HCM Lane V/C Ratio | - | - | 0.239 | 0.048 | 0.016 | - |
| HCM Control Delay (s) | - | - | 13.5 | 9.8 | 7.9 | - |
| HCM Lane LOS | - | - | B | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.9 | 0.2 | 0.1 | - |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 156 | 156 | 252 | 76 | 67 | 930 |
| Future Volume (vph) | 156 | 156 | 252 | 76 | 67 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 200 | | 0 | 200 | |
| Storage Lanes | 1 | 1 | | 0 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | 0.969 | | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1444 | 1583 | 1495 | 0 | 1456 | 1810 |
| Flt Permitted | 0.950 | | | | 0.362 | |
| Satd. Flow (perm) | 1444 | 1583 | 1495 | 0 | 555 | 1810 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 184 | 28 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 1049 |
| Travel Time (s) | 9.6 | | 8.5 | | | 23.8 |
| Peak Hour Factor | 0.90 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 25% | 2% | 8% | 73% | 24% | 5% |
| Adj. Flow (vph) | 173 | 184 | 350 | 106 | 71 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 173 | 184 | 456 | 0 | 71 | 989 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | pm+ov | NA | | pm+pt | NA |
| Protected Phases | | 5 | 6 | | 5 | 2 |
| Permitted Phases | 8 | 8 | | | 2 | |
| Detector Phase | 8 | 5 | 6 | | 5 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 9.5 | 23.0 | | 9.5 | 23.0 |
| Total Split (s) | 23.0 | 11.0 | 36.0 | | 11.0 | 47.0 |
| Total Split (%) | 32.9% | 15.7% | 51.4% | | 15.7% | 67.1% |
| Maximum Green (s) | 18.0 | 6.5 | 31.0 | | 6.5 | 42.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.0 | 1.5 | | 1.0 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 4.5 | 5.0 | | 4.5 | 5.0 |
| Lead/Lag | | Lead | Lag | | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | None | C-Max | | None | C-Max |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | | 7.0 | | | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | | 0 |
| Act Effct Green (s) | 13.3 | 24.7 | 35.8 | | 47.2 | 46.7 |
| Actuated g/C Ratio | 0.19 | 0.35 | 0.51 | | 0.67 | 0.67 |
| v/c Ratio | 0.63 | 0.27 | 0.59 | | 0.16 | 0.82 |
| Control Delay | 35.9 | 3.4 | 16.3 | | 5.7 | 17.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 35.9 | 3.4 | 16.3 | | 5.7 | 17.8 |
| LOS | D | A | B | | A | B |
| Approach Delay | 19.2 | | 16.3 | | | 17.0 |
| Approach LOS | B | | B | | | B |
| Queue Length 50th (ft) | 69 | 0 | 121 | | 9 | 267 |
| Queue Length 95th (ft) | 119 | 28 | 166 | | 26 | #625 |
| Internal Link Dist (ft) | 341 | | 295 | | | 969 |
| Turn Bay Length (ft) | | 200 | | | 200 | |
| Base Capacity (vph) | 371 | 683 | 777 | | 460 | 1207 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.27 | 0.59 | | 0.15 | 0.82 |

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 11 (16%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 17.2 Intersection LOS: B
Intersection Capacity Utilization 65.9% ICU Level of Service C
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 32 & South Port Road

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 51 | 75 | 59 | 277 | 705 | 381 |
| Future Volume (vph) | 51 | 75 | 59 | 277 | 705 | 381 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | 0 | 0 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.953 | |
| Flt Protected | 0.950 | | | 0.991 | | |
| Satd. Flow (prot) | 1504 | 1417 | 0 | 1570 | 1685 | 0 |
| Flt Permitted | 0.950 | | | 0.572 | | |
| Satd. Flow (perm) | 1504 | 1417 | 0 | 906 | 1685 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 82 | | | 72 | |
| Link Speed (mph) | 45 | | | 55 | 55 | |
| Link Distance (ft) | 2072 | | | 957 | 365 | |
| Travel Time (s) | 31.4 | | | 11.9 | 4.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.88 | 0.88 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 20% | 14% | 10% | 22% | 11% | 1% |
| Adj. Flow (vph) | 55 | 82 | 67 | 315 | 775 | 419 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 55 | 82 | 0 | 382 | 1194 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Turn Type | Prot | Perm | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 42.5 | 42.5 | 42.5 | |
| Total Split (%) | 34.6% | 34.6% | 65.4% | 65.4% | 65.4% | |
| Maximum Green (s) | 18.0 | 18.0 | 38.0 | 38.0 | 38.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | C-Min | C-Min | C-Min | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 7.9 | 7.9 | | 51.0 | 51.0 | |
| Actuated g/C Ratio | 0.12 | 0.12 | | 0.78 | 0.78 | |
| v/c Ratio | 0.30 | 0.34 | | 0.54 | 0.89 | |
| Control Delay | 29.7 | 10.9 | | 7.7 | 19.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 29.7 | 10.9 | | 7.7 | 19.2 | |
| LOS | C | B | | A | B | |
| Approach Delay | 18.4 | | | 7.7 | 19.2 | |
| Approach LOS | B | | | A | B | |
| Queue Length 50th (ft) | 20 | 0 | | 49 | 277 | |
| Queue Length 95th (ft) | 48 | 33 | | 131 | #724 | |
| Internal Link Dist (ft) | 1992 | | | 877 | 285 | |
| Turn Bay Length (ft) | 125 | | | | | |
| Base Capacity (vph) | 416 | 451 | | 711 | 1338 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.13 | 0.18 | | 0.54 | 0.89 | |

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 16.6 — Intersection LOS: B
Intersection Capacity Utilization 76.8% — ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: NYS Route 144 & NYS Route 32

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | NBL | NBT | SBT | SBR | NEL | NER |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 36 | 258 | 445 | 285 | 59 | 40 |
| Future Vol, veh/h | 36 | 258 | 445 | 285 | 59 | 40 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 77 | 77 | 84 | 84 | 81 | 81 |
| Heavy Vehicles, % | 4 | 17 | 8 | 5 | 5 | 1 |
| Mvmt Flow | 47 | 335 | 530 | 339 | 73 | 49 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 869 | 0 | - | 0 | 1129 | 700 |
| Stage 1 | - | - | - | - | 700 | - |
| Stage 2 | - | - | - | - | 429 | - |
| Critical Hdwy | 4.14 | - | - | - | 6.45 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.45 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.45 | - |
| Follow-up Hdwy | 2.236 | - | - | - | 3.545 | 3.309 |
| Pot Cap-1 Maneuver | 767 | - | - | - | 223 | 441 |
| Stage 1 | - | - | - | - | 487 | - |
| Stage 2 | - | - | - | - | 650 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 767 | - | - | - | 206 | 441 |
| Mov Cap-2 Maneuver | - | - | - | - | 206 | - |
| Stage 1 | - | - | - | - | 450 | - |
| Stage 2 | - | - | - | - | 650 | - |

| Approach | NB | SB | NE |
|---|---|---|---|
| HCM Control Delay, s | 1.2 | 0 | 30 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | NELn1 | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 263 | 767 | - | - | - |
| HCM Lane V/C Ratio | 0.465 | 0.061 | - | - | - |
| HCM Control Delay (s) | 30 | 10 | 0 | - | - |
| HCM Lane LOS | D | A | A | - | - |
| HCM 95th %tile Q(veh) | 2.3 | 0.2 | - | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.5 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 7 | 2 | 6 | 251 | 443 | 13 |
| Future Vol, veh/h | 7 | 2 | 6 | 251 | 443 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 30 | 80 | 88 | 63 |
| Heavy Vehicles, % | 0 | 0 | 0 | 23 | 11 | 0 |
| Mvmt Flow | 14 | 4 | 20 | 314 | 503 | 21 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 868 | 514 | 524 | 0 | - | 0 |
| Stage 1 | 514 | - | - | - | - | - |
| Stage 2 | 354 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 325 | 564 | 1053 | - | - | - |
| Stage 1 | 605 | - | - | - | - | - |
| Stage 2 | 715 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 318 | 564 | 1053 | - | - | - |
| Mov Cap-2 Maneuver | 318 | - | - | - | - | - |
| Stage 1 | 591 | - | - | - | - | - |
| Stage 2 | 715 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.8 | 0.5 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1053 | - | 352 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | 0.051 | - | - |
| HCM Control Delay (s) | 8.5 | 0 | 15.8 | - | - |
| HCM Lane LOS | A | A | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 10.5 | | | | | |

| Movement | EBL | EBR | NEL | NET | SWT | SWR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 111 | 283 | 204 | 142 | 250 | 124 |
| Future Vol, veh/h | 111 | 283 | 204 | 142 | 250 | 124 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | Yield | - | None | - | Yield |
| Storage Length | 0 | 100 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 90 | 90 | 90 | 90 |
| Heavy Vehicles, % | 45 | 3 | 9 | 8 | 4 | 32 |
| Mvmt Flow | 123 | 314 | 227 | 158 | 278 | 138 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 959 | 347 | 278 | 0 | - | 0 |
| Stage 1 | 347 | - | - | - | - | - |
| Stage 2 | 612 | - | - | - | - | - |
| Critical Hdwy | 6.85 | 6.23 | 4.19 | - | - | - |
| Critical Hdwy Stg 1 | 5.85 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.85 | - | - | - | - | - |
| Follow-up Hdwy | 3.905 | 3.327 | 2.281 | - | - | - |
| Pot Cap-1 Maneuver | 239 | 694 | 1246 | - | - | - |
| Stage 1 | 629 | - | - | - | - | - |
| Stage 2 | 467 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 191 | 694 | 1246 | - | - | - |
| Mov Cap-2 Maneuver | 191 | - | - | - | - | - |
| Stage 1 | 503 | - | - | - | - | - |
| Stage 2 | 467 | - | - | - | - | - |

| Approach | EB | NE | SW |
|---|---|---|---|
| HCM Control Delay, s | 25.2 | 5 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NEL | NET | EBLn1 | EBLn2 | SWT | SWR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1246 | - | 191 | 694 | - | - |
| HCM Lane V/C Ratio | 0.182 | - | 0.646 | 0.453 | - | - |
| HCM Control Delay (s) | 8.5 | 0 | 52.9 | 14.4 | - | - |
| HCM Lane LOS | A | A | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.7 | - | 3.8 | 2.4 | - | - |

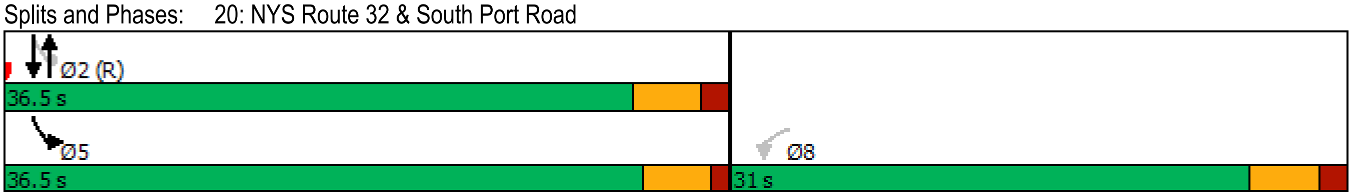
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 156 | 156 | 253 | 76 | 67 | 930 |
| Future Volume (vph) | 156 | 156 | 253 | 76 | 67 | 930 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.932 | | 0.969 | | | |
| Flt Protected | 0.976 | | | | 0.950 | |
| Satd. Flow (prot) | 1523 | 0 | 1496 | 0 | 1456 | 1810 |
| Flt Permitted | 0.976 | | | | 0.000 | |
| Satd. Flow (perm) | 1523 | 0 | 1496 | 0 | 0 | 1810 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | 87 | | 30 | | | |
| Link Speed (mph) | 30 | | 30 | | | 30 |
| Link Distance (ft) | 421 | | 375 | | | 1049 |
| Travel Time (s) | 9.6 | | 8.5 | | | 23.8 |
| Peak Hour Factor | 0.85 | 0.85 | 0.72 | 0.72 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 25% | 2% | 8% | 73% | 24% | 5% |
| Adj. Flow (vph) | 184 | 184 | 351 | 106 | 71 | 989 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 368 | 0 | 457 | 0 | 71 | 989 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Perm | | NA | | pm+pt | NA |
| Protected Phases | | | 2! | | 5! | 2 |
| Permitted Phases | 8 | | | | 2 | |
| Detector Phase | 8 | | 2 | | 5 | 2 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | | 23.0 | | 9.5 | 23.0 |
| Total Split (s) | 31.0 | | 36.5 | | 36.5 | 36.5 |
| Total Split (%) | 45.9% | | 54.1% | | 54.1% | 54.1% |
| Maximum Green (s) | 26.0 | | 31.5 | | 32.0 | 31.5 |
| Yellow Time (s) | 3.5 | | 3.5 | | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | | 1.0 | 1.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | | 4.5 | 5.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | | 3.0 | 3.0 |
| Recall Mode | None | | C-Max | | None | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | | | 7.0 |
| Flash Dont Walk (s) | 11.0 | | 11.0 | | | 11.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | | | 0 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 18.3 | | 39.2 | | 39.7 | 39.2 |
| Actuated g/C Ratio | 0.27 | | 0.58 | | 0.59 | 0.58 |
| v/c Ratio | 0.77 | | 0.52 | | 0.08 | 0.94 |
| Control Delay | 27.7 | | 12.2 | | 8.4 | 35.2 |
| Queue Delay | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Total Delay | 27.7 | | 12.2 | | 8.4 | 35.2 |
| LOS | C | | B | | A | D |
| Approach Delay | 27.7 | | 12.2 | | | 33.4 |
| Approach LOS | C | | B | | | C |
| Queue Length 50th (ft) | 106 | | 95 | | 11 | 341 |
| Queue Length 95th (ft) | 150 | | 152 | | 36 | #713 |
| Internal Link Dist (ft) | 341 | | 295 | | | 969 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 640 | | 881 | | 856 | 1050 |
| Starvation Cap Reductn | 0 | | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.57 | | 0.52 | | 0.08 | 0.94 |

Intersection Summary

Area Type: Other
Cycle Length: 67.5
Actuated Cycle Length: 67.5
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 27.1 Intersection LOS: C
Intersection Capacity Utilization 75.5% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
! Phase conflict between lane groups.

Splits and Phases: 20: NYS Route 32 & South Port Road



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 58 | 75 | 59 | 235 | 672 | 413 |
| Future Volume (vph) | 58 | 75 | 59 | 235 | 672 | 413 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 125 | 0 | 0 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 25 | | 25 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.850 | | | 0.949 | |
| Flt Protected | 0.950 | | | 0.990 | | |
| Satd. Flow (prot) | 1399 | 1417 | 0 | 1748 | 1679 | 0 |
| Flt Permitted | 0.950 | | | 0.544 | | |
| Satd. Flow (perm) | 1399 | 1417 | 0 | 961 | 1679 | 0 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | | 82 | | | 82 | |
| Link Speed (mph) | 45 | | | 55 | 55 | |
| Link Distance (ft) | 2072 | | | 957 | 365 | |
| Travel Time (s) | 31.4 | | | 11.9 | 4.5 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.88 | 0.88 | 0.91 | 0.91 |
| Heavy Vehicles (%) | 29% | 14% | 10% | 7% | 7% | 8% |
| Adj. Flow (vph) | 63 | 82 | 67 | 267 | 738 | 454 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 63 | 82 | 0 | 334 | 1192 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 0 | 0 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Turn Type | Prot | Perm | Perm | NA | NA | |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | |
| Total Split (s) | 22.5 | 22.5 | 42.5 | 42.5 | 42.5 | |
| Total Split (%) | 34.6% | 34.6% | 65.4% | 65.4% | 65.4% | |
| Maximum Green (s) | 18.0 | 18.0 | 38.0 | 38.0 | 38.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | C-Min | C-Min | C-Min | |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | |
| Flash Dont Walk (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | 0 | 0 | 0 | 0 | 0 | |
| Act Effct Green (s) | 8.4 | 8.4 | | 50.5 | 50.5 | |
| Actuated g/C Ratio | 0.13 | 0.13 | | 0.78 | 0.78 | |
| v/c Ratio | 0.35 | 0.32 | | 0.45 | 0.90 | |
| Control Delay | 30.3 | 10.2 | | 6.3 | 20.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 30.3 | 10.2 | | 6.3 | 20.7 | |
| LOS | C | B | | A | C | |
| Approach Delay | 18.9 | | | 6.3 | 20.7 | |
| Approach LOS | B | | | A | C | |
| Queue Length 50th (ft) | 23 | 0 | | 40 | 290 | |
| Queue Length 95th (ft) | 53 | 32 | | 103 | #733 | |
| Internal Link Dist (ft) | 1992 | | | 877 | 285 | |
| Turn Bay Length (ft) | 125 | | | | | |
| Base Capacity (vph) | 387 | 451 | | 746 | 1322 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.16 | 0.18 | | 0.45 | 0.90 | |

Intersection Summary

Area Type: Other

Cycle Length: 65

Actuated Cycle Length: 65

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 17.7 Intersection LOS: B

Intersection Capacity Utilization 75.0% ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 21: NYS Route 144 & NYS Route 32

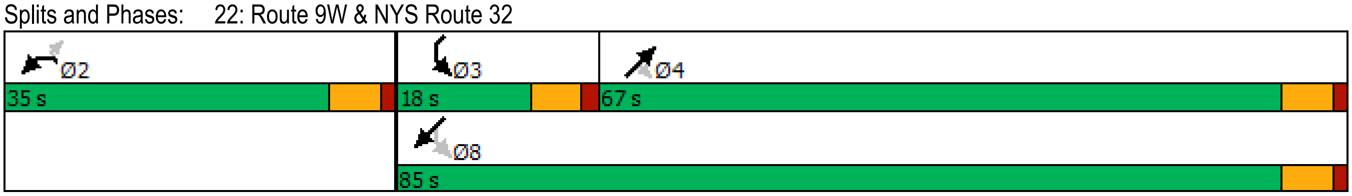
| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 306 | 184 | 1081 | 99 | 150 | 1439 |
| Future Volume (vph) | 306 | 184 | 1081 | 99 | 150 | 1439 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 75 | | 200 | 100 | |
| Storage Lanes | 1 | 1 | | 1 | 1 | |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1719 | 1272 | 3471 | 1509 | 1299 | 3539 |
| Flt Permitted | 0.950 | | | | 0.086 | |
| Satd. Flow (perm) | 1719 | 1272 | 3471 | 1509 | 118 | 3539 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 95 | | 96 | | |
| Link Speed (mph) | 45 | | 45 | | | 45 |
| Link Distance (ft) | 1257 | | 583 | | | 1004 |
| Travel Time (s) | 19.0 | | 8.8 | | | 15.2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 27% | 4% | 7% | 39% | 2% |
| Adj. Flow (vph) | 336 | 202 | 1188 | 109 | 160 | 1531 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 336 | 202 | 1188 | 109 | 160 | 1531 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(ft) | 12 | | 12 | | | 12 |
| Link Offset(ft) | 0 | | 0 | | | 0 |
| Crosswalk Width(ft) | 16 | | 16 | | | 16 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | 9 | | 9 | 15 | |
| Turn Type | Prot | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | 2 | | 4 | | 3 | 8 |
| Permitted Phases | | 2 | | 4 | 8 | 8 |
| Detector Phase | 2 | 2 | 4 | 4 | 3 | 8 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 17.0 | 17.0 | 24.0 | 24.0 | 11.0 | 11.0 |
| Total Split (s) | 35.0 | 35.0 | 67.0 | 67.0 | 18.0 | 85.0 |
| Total Split (%) | 29.2% | 29.2% | 55.8% | 55.8% | 15.0% | 70.8% |
| Maximum Green (s) | 29.0 | 29.0 | 61.0 | 61.0 | 12.0 | 79.0 |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | Max | Max | None | None | None | None |

| Lane Group | NWL | NWR | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|
| Act Effct Green (s) | 29.3 | 29.3 | 42.6 | 42.6 | 59.5 | 59.5 |
| Actuated g/C Ratio | 0.29 | 0.29 | 0.42 | 0.42 | 0.59 | 0.59 |
| v/c Ratio | 0.67 | 0.46 | 0.81 | 0.16 | 0.81 | 0.73 |
| Control Delay | 41.9 | 21.4 | 30.4 | 4.9 | 52.7 | 17.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.9 | 21.4 | 30.4 | 4.9 | 52.7 | 17.1 |
| LOS | D | C | C | A | D | B |
| Approach Delay | 34.2 | | 28.3 | | | 20.4 |
| Approach LOS | C | | C | | | C |
| Queue Length 50th (ft) | 192 | 54 | 348 | 5 | 60 | 345 |
| Queue Length 95th (ft) | #375 | 146 | 429 | 34 | #182 | 418 |
| Internal Link Dist (ft) | 1177 | | 503 | | | 924 |
| Turn Bay Length (ft) | | 75 | | 200 | 100 | |
| Base Capacity (vph) | 499 | 436 | 2120 | 959 | 211 | 2799 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.67 | 0.46 | 0.56 | 0.11 | 0.76 | 0.55 |

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 101
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 70.1% ICU Level of Service C
Analysis Period (min) 15
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 22: Route 9W & NYS Route 32



# APPENDIX D

# SIGNAL WARRANT ANALYSIS

- NYS Route 144/NYS Route 32 Signal Warrant Worksheet - Existing
- NYS Route 144/Glenmont Road Signal Warrant Worksheet – Existing
- NYS Route 144/NYS Route 32 Signal Warrant Worksheet – Phase III
- NYS Route 144/Glenmont Road Signal Warrant Worksheet – Phase III
- NYS Route 144/Proposed Site Driveway Signal Warrant Worksheet – Phase III

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | River Road - NYS Route 144 (Existing) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Corning Hill Road - NYS Route 32 (Existing) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| **Warrant:** | | **Met?** |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | Y |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | Y |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 875 | 126 | 596 | 126 | 0 | 0 |
| 8:00-9:00 | 763 | 122 | 521 | 122 | 0 | 0 |
| 9:00-10:00 | 721 | 125 | 454 | 125 | 0 | 0 |
| Noon-1:00 | 571 | 100 | 321 | 100 | 0 | 0 |
| 2:00-3:00 | 599 | 90 | 344 | 90 | 0 | 0 |
| 3:00-4:00 | 662 | 82 | 410 | 82 | 0 | 0 |
| 4:00-5:00 | 1108 | 85 | 840 | 85 | 0 | 0 |
| 5:00-6:00 | 1053 | 87 | 829 | 87 | 0 | 0 |
| AM Peak | 918 | 143 | 674 | 143 | 0 | 0 |
| PM Peak | 1205 | 94 | 953 | 94 | 0 | 0 |

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 4 | 3 | 3 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No hours meet warrant 1A**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**Yes, all 8 hours meet warrant 1B**

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only three hours meet both the Warrant 1A & 1B 56% columns**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

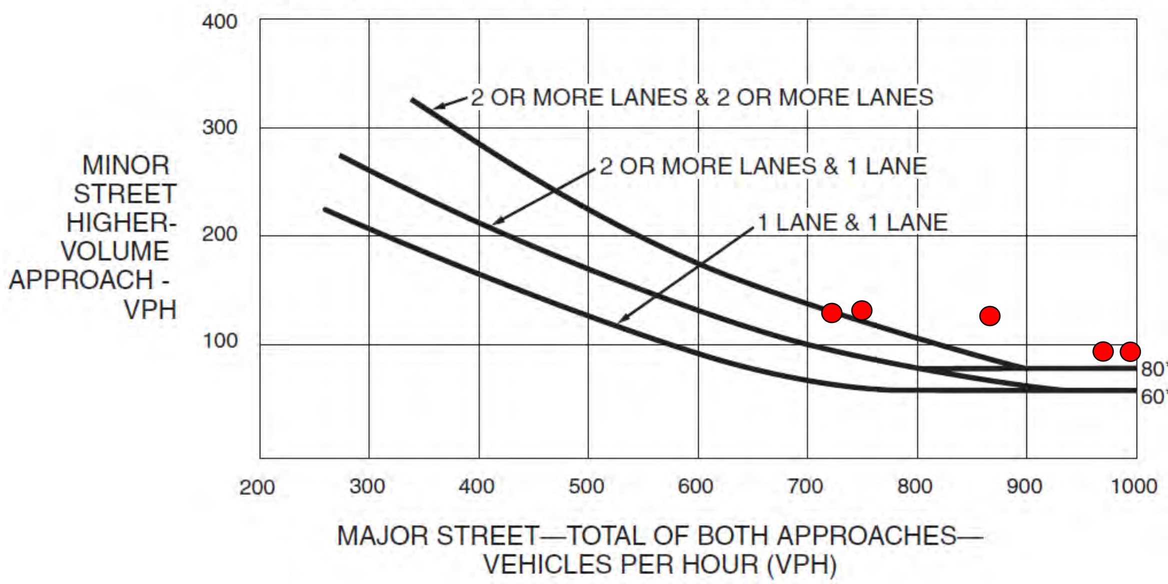
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Yes, at least 4 hours meet Warrant 2 based on a 2-lane approach for Route 32**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**No, the minor approach has 2.00 hours of delay during the morning peak hour.**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (208 vehicles per hour during the AM peak hour & 133 vehicles per hour during the PM).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (1207 vehicles per hour during the AM peak hour and 1469 vehicles per hour during the PM peak hour.**

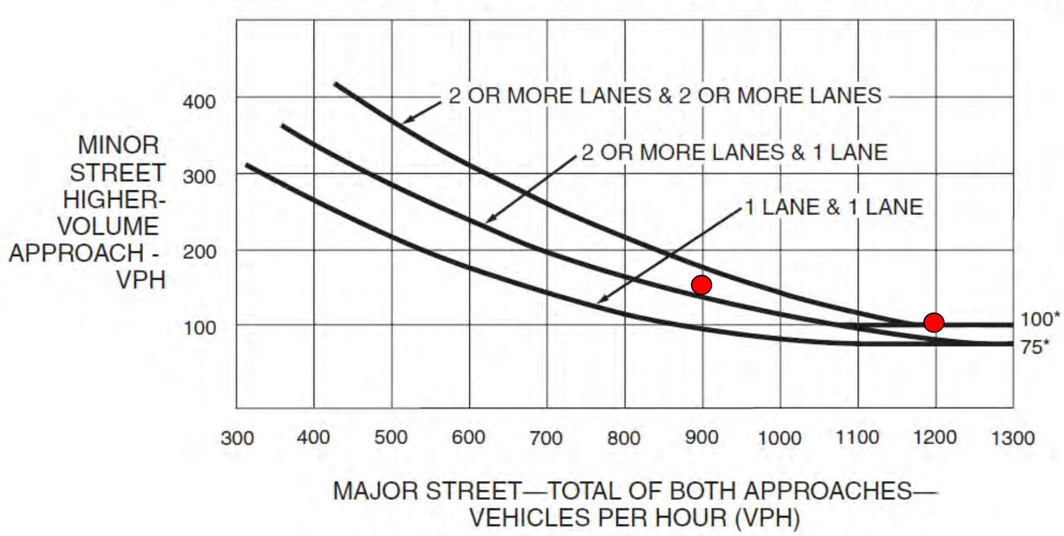
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

**Yes, both peak hours meet warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 4, Pedestrian Volume**

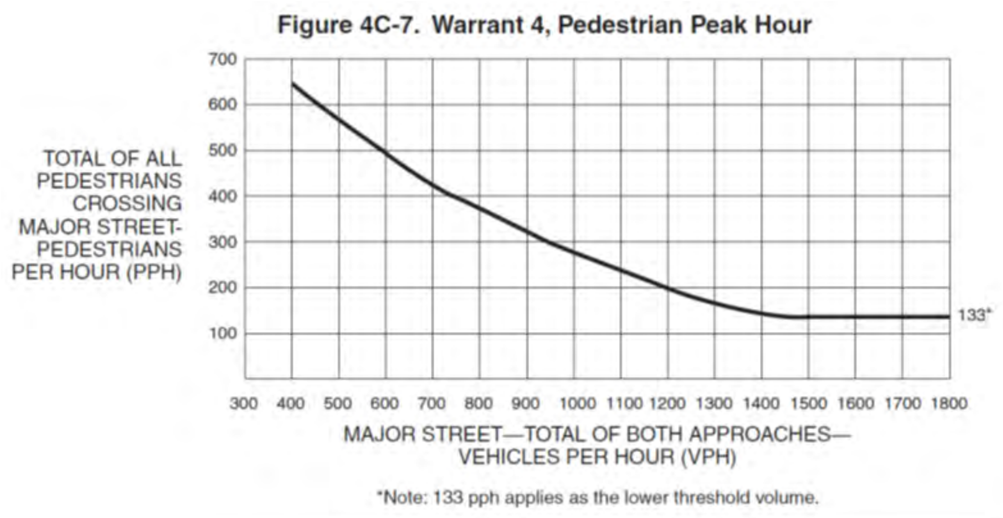
The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

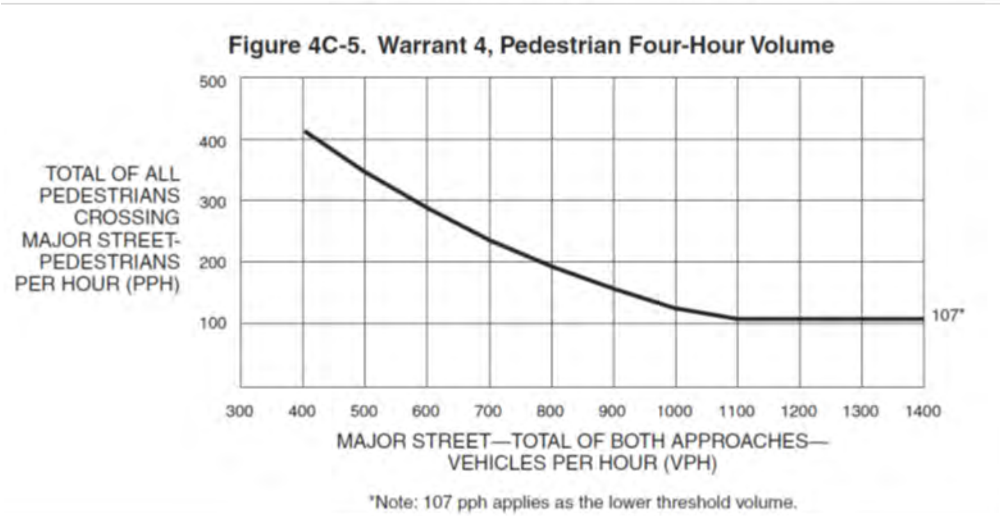
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-7.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, no pedestrians were observed during the traffic counts.**




## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 4 crashed total, 3 with multiple vehicles, 2 included injuries and 1 included property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Yes, Condition B is met.**

**Warrant 7 not met.**

.

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(Proposed entering volume is 1299 vehicles during the PM peak hour)**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | NYS Route 144 (Existing) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Glenmont Road (Existing) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | N |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | N |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 725 | 158 | 497 | 158 | 0 | 0 |
| 8:00-9:00 | 534 | 181 | 347 | 181 | 0 | 0 |
| 9:00-10:00* | 365 | 78 | 172 | 78 | 0 | 0 |
| 1:00-2:00* | 350 | 75 | 180 | 75 | 0 | 0 |
| 2:00-3:00* | 381 | 82 | 202 | 82 | 0 | 0 |
| 3:00-4:00* | 467 | 100 | 284 | 100 | 0 | 0 |
| 4:00-5:00 | 797 | 90 | 599 | 90 | 0 | 0 |
| 5:00-6:00 | 783 | 60 | 613 | 60 | 0 | 0 |
| AM Peak | 757 | 178 | 532 | 178 | 0 | 0 |
| PM Peak | 853 | 88 | 654 | 88 | 0 | 0 |

* =Volumes projected from adjacent tube count data.

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 10 | 0 | 0 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, only 2 hours meet warrant 1A.**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1B.**

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1C.**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

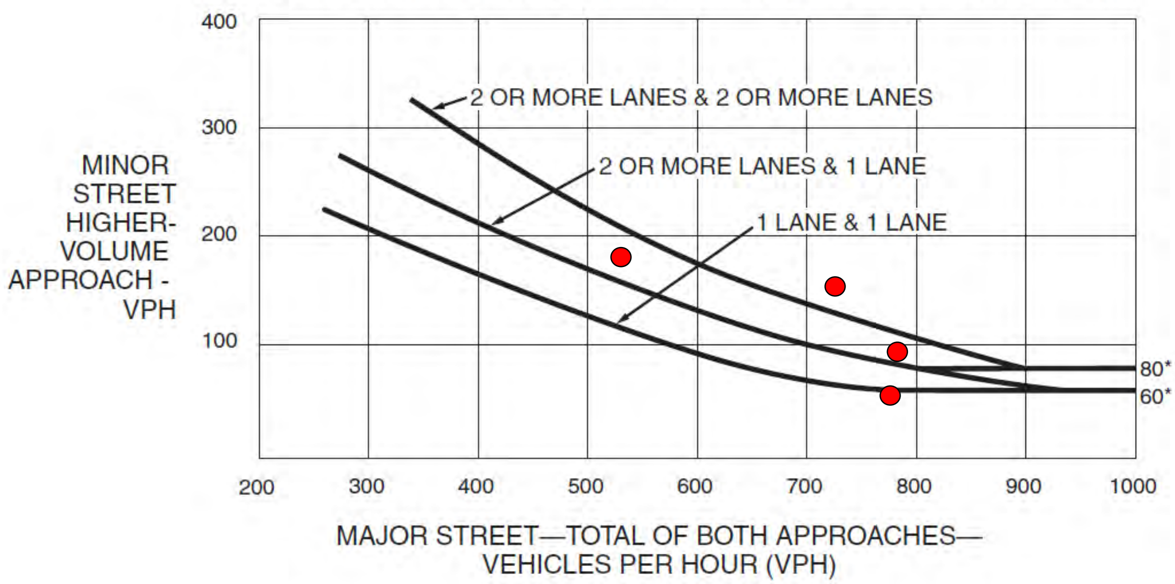
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**No, only three hours meet Warrant 2.**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**No, Glenmont Road has 1.96 hours of delay during the evening peak hour**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (178 vehicles per hour during the AM peak hour).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (935 vehicles per hour during the AM peak hour and 941 vehicles per hour during the PM peak hour).**

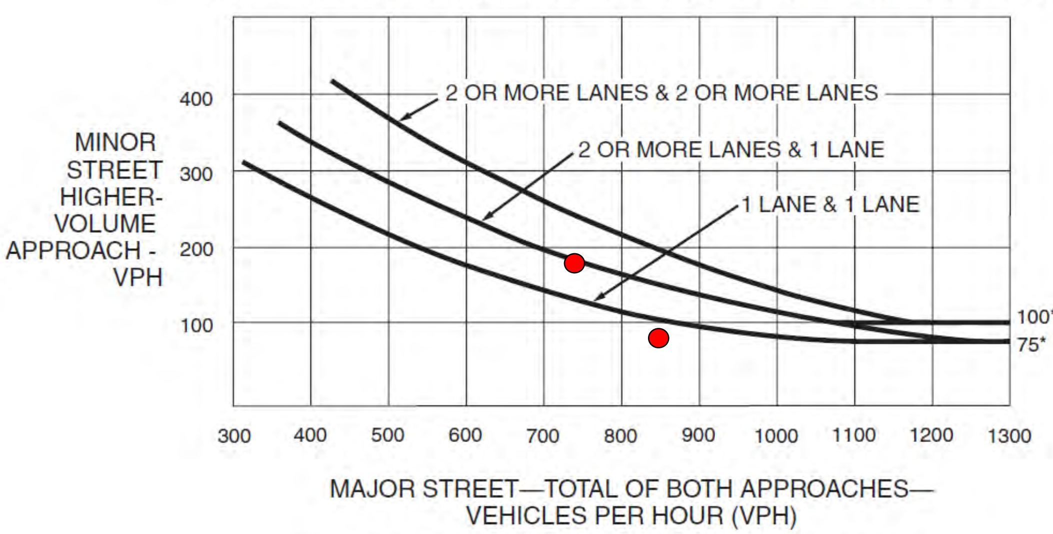
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

**Yes, the AM peak hour meets warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

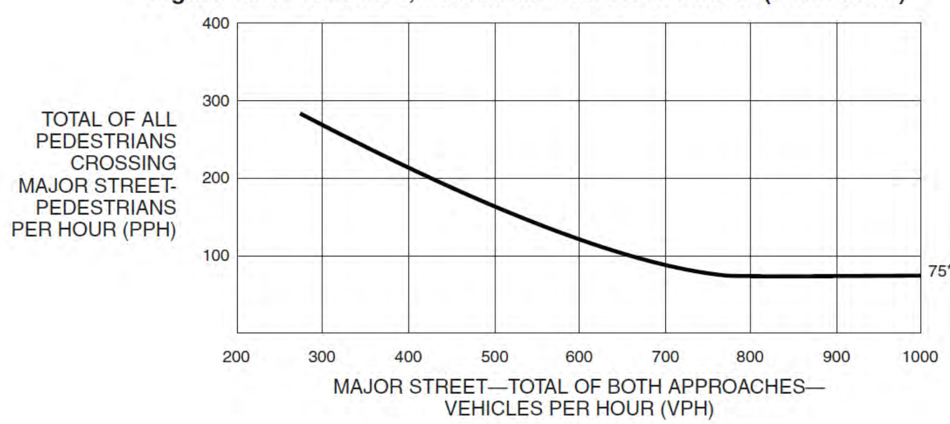
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

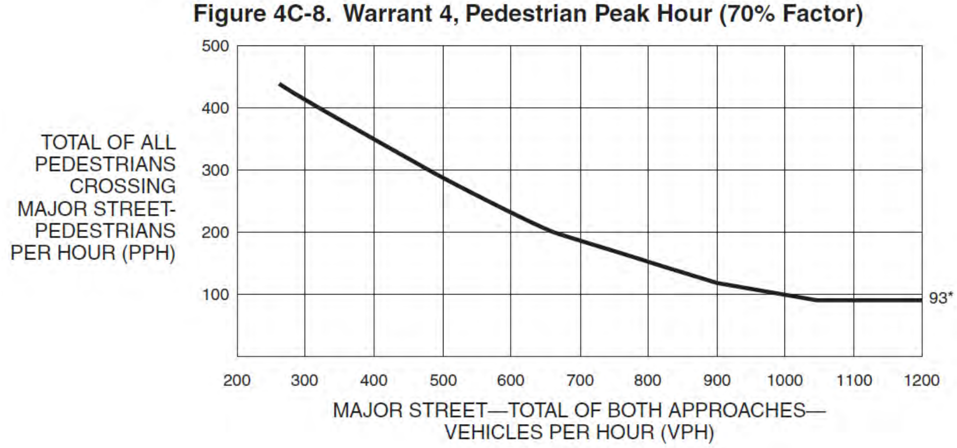
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**




*Note: 75 pph applies as the lower threshold volume.

**Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**




*Note: 93 pph applies as the lower threshold volume.

## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 10 crashed total, 8 with multiple vehicles, 0 includes injuries or property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Not met**

**Warrant 7 not met.**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(No, proposed entering volume is 935 vehicles during the am peak hour and 941 vehicles during the PM peak hour).**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | River Road - NYS Route 144 (Full Build) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Corning Hill Road - NYS Route 32 (Full Build) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| **Warrant:** | | **Met?** |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | Y |
| Warrant 3 – Peak Hour | 3A | Y |
| | 3B | Y |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 936 | 162 | 667 | 162 | 0 | 0 |
| 8:00-9:00 | 836 | 145 | 554 | 145 | 0 | 0 |
| 9:00-10:00 | 779 | 135 | 490 | 135 | 0 | 0 |
| Noon-1:00 | 617 | 108 | 347 | 108 | 0 | 0 |
| 2:00-3:00 | 647 | 98 | 372 | 98 | 0 | 0 |
| 3:00-4:00 | 715 | 89 | 443 | 89 | 0 | 0 |
| 4:00-5:00 | 1199 | 108 | 910 | 108 | 0 | 0 |
| 5:00-6:00 | 1140 | 109 | 899 | 109 | 0 | 0 |
| AM Peak | 999 | 208 | 715 | 208 | 0 | 0 |
| PM Peak | 1336 | 133 | 1057 | 133 | 0 | 0 |

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 4 | 3 | 3 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, only 2 hours meet warrant 1A**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**Yes, all 8 hours meet warrant 1B**

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only three hours meet both the Warrant 1A & 1B 56% columns**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

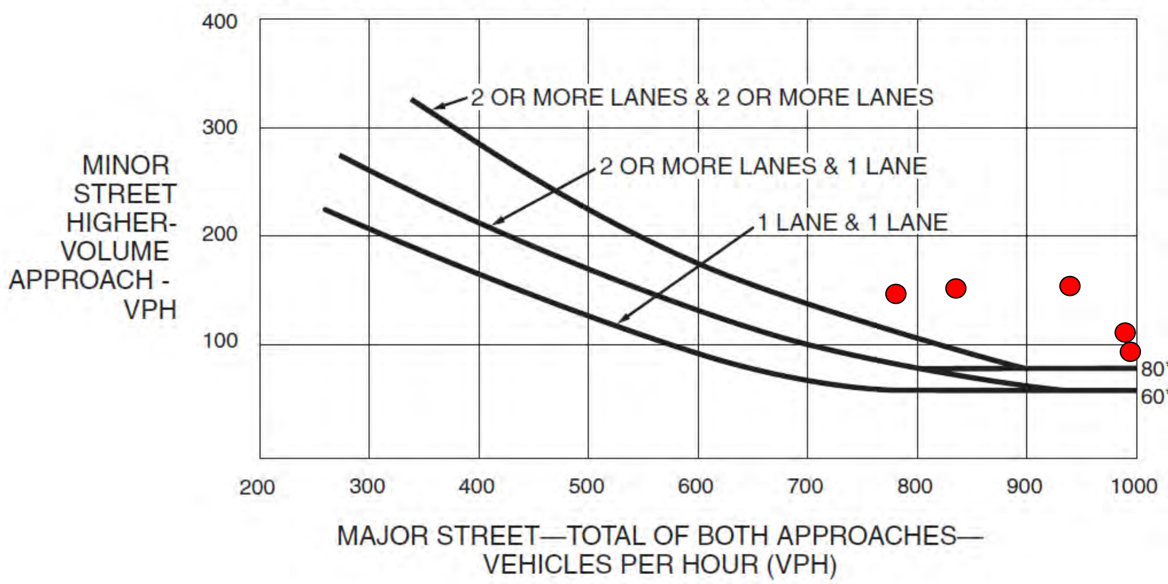
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Yes, at least 4 hours meet Warrant 2 based on a 2-lane approach for Route 32**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**Yes, the minor approach has 6.29 hours of delay during the morning peak hour.**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (208 vehicles per hour during the AM peak hour & 133 vehicles per hour during the PM).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (1207 vehicles per hour during the AM peak hour and 1469 vehicles per hour during the PM peak hour.**

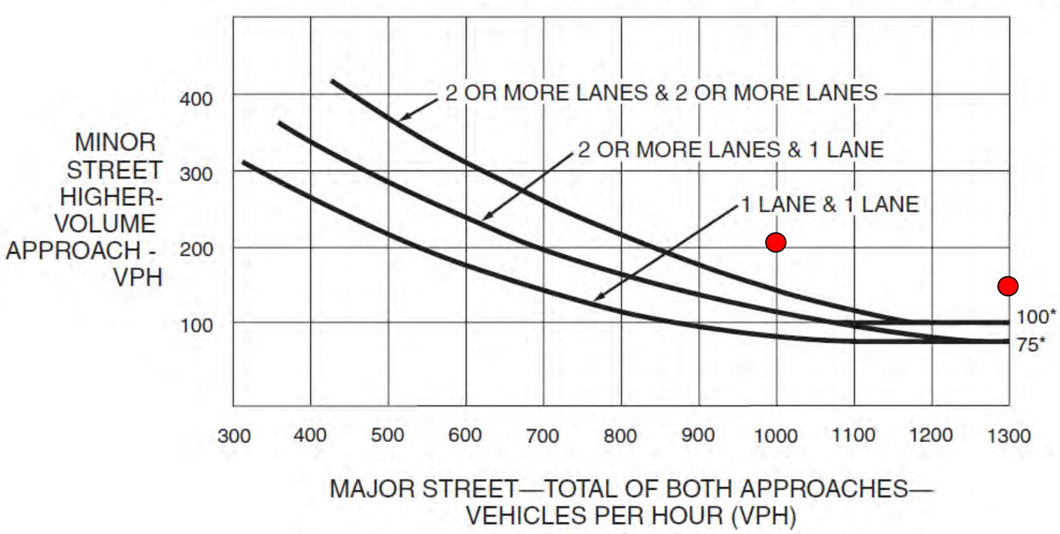
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

**Yes, both peak hours meet warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

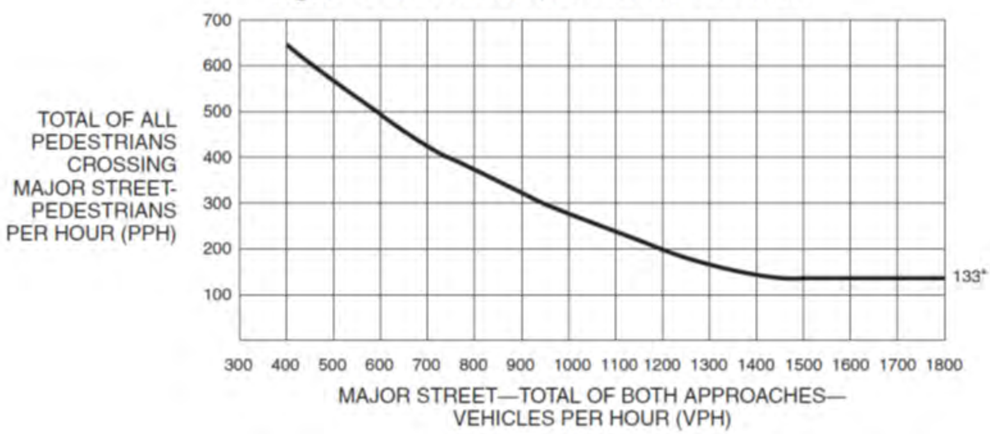
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-7.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

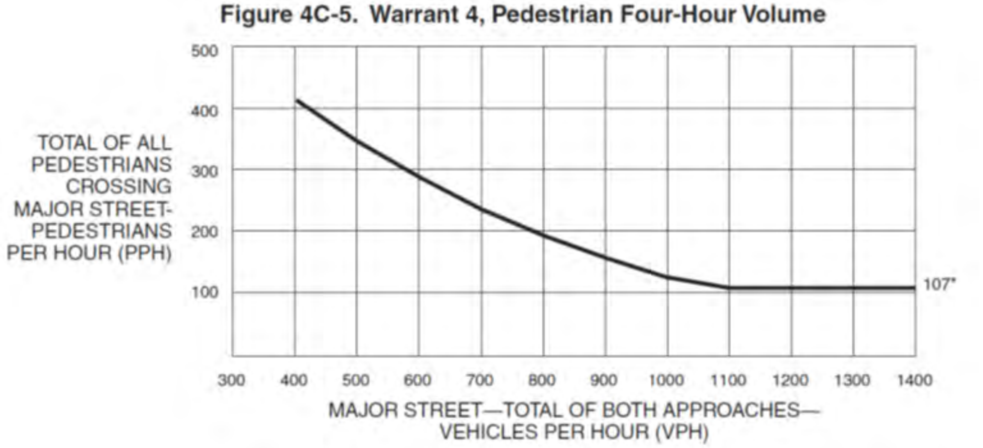
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-7. Warrant 4, Pedestrian Peak Hour**




*Note: 133 pph applies as the lower threshold volume.

**Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume**




*Note: 107 pph applies as the lower threshold volume.

## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 4 crashed total, 3 with multiple vehicles, 2 included injuries and 1 included property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Yes, Condition B is met.**

**Warrant 7 not met.**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(Proposed entering volume is 1299 vehicles during the PM peak hour)**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | River Road - NYS Route 144 (Full Build) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Glenmont Road – NYS Route 32 (Full Build) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| **Warrant:** | | **Met?** |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | Y |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | Y |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 773 | 185 | 528 | 185 | 0 | 0 |
| 8:00-9:00 | 573 | 212 | 371 | 212 | 0 | 0 |
| 9:00-10:00* | 394 | 84 | 186 | 84 | 0 | 0 |
| 1:00-2:00* | 378 | 81 | 195 | 81 | 0 | 0 |
| 2:00-3:00* | 412 | 89 | 218 | 89 | 0 | 0 |
| 3:00-4:00* | 505 | 108 | 307 | 108 | 0 | 0 |
| 4:00-5:00 | 861 | 98 | 632 | 98 | 0 | 0 |
| 5:00-6:00 | 846 | 65 | 646 | 65 | 0 | 0 |
| AM Peak | 820 | 198 | 572 | 198 | 0 | 0 |
| PM Peak | 932 | 99 | 695 | 99 | 0 | 0 |

* =Volumes projected based on percentage growth associated with proposed development.

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 10 | 0 | 0 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, only 3 hours meet warrant 1A.**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1B.**

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

> A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and
> B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1C.**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

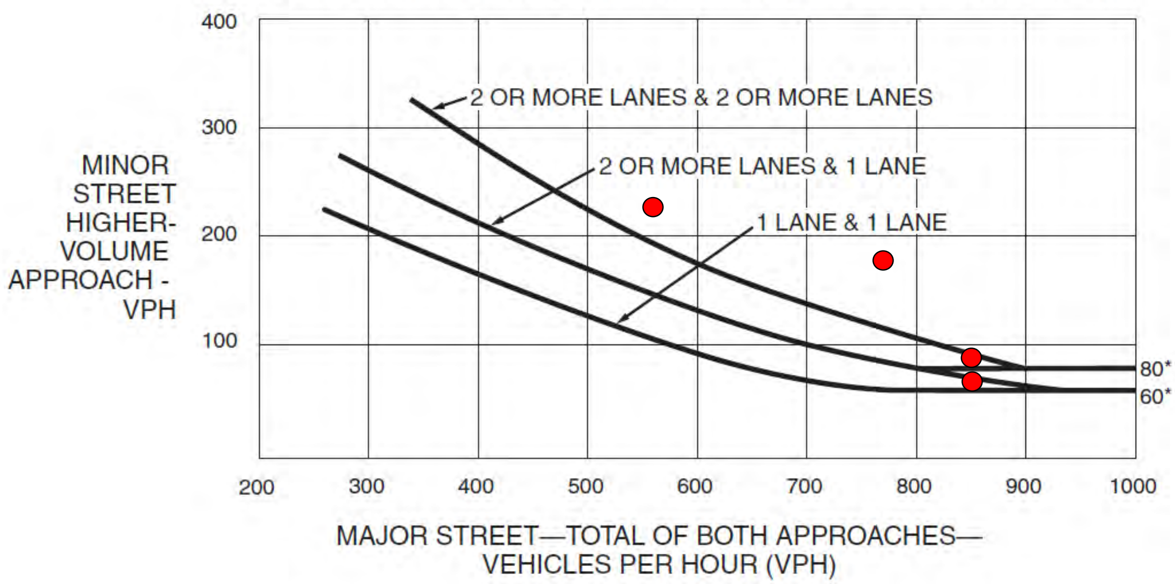
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Yes, four hours meet Warrant 2.**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**No, Glenmont Road has 1.96 hours of delay during the evening peak hour**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (178 vehicles per hour during the AM peak hour).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (935 vehicles per hour during the AM peak hour and 941 vehicles per hour during the PM peak hour).**

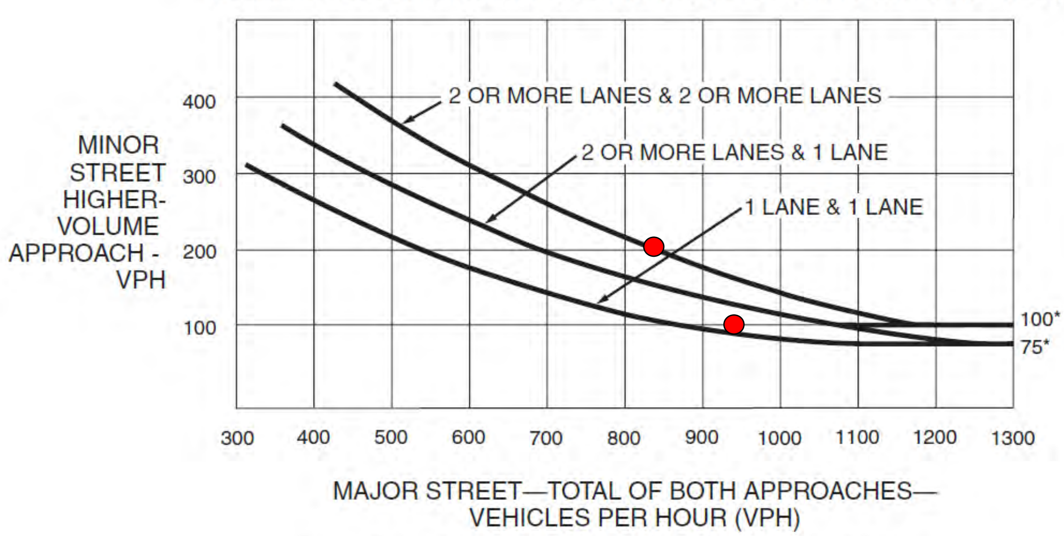
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

**Yes, the AM&PM peak hours meet warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

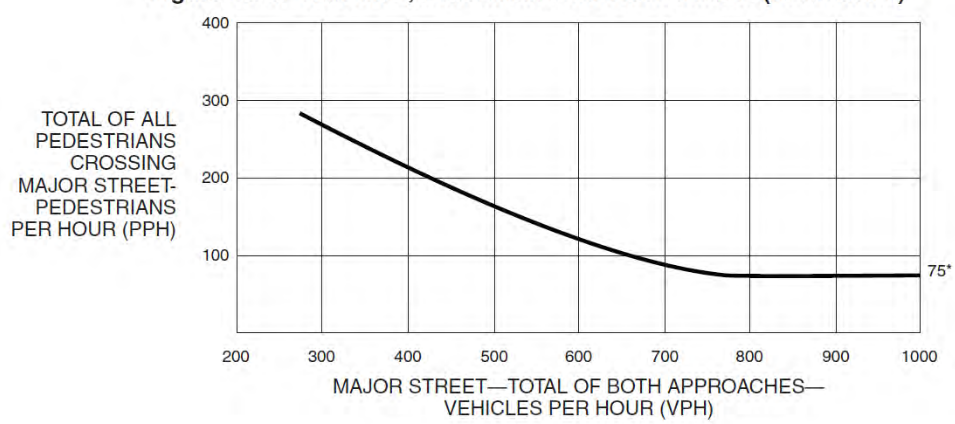
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

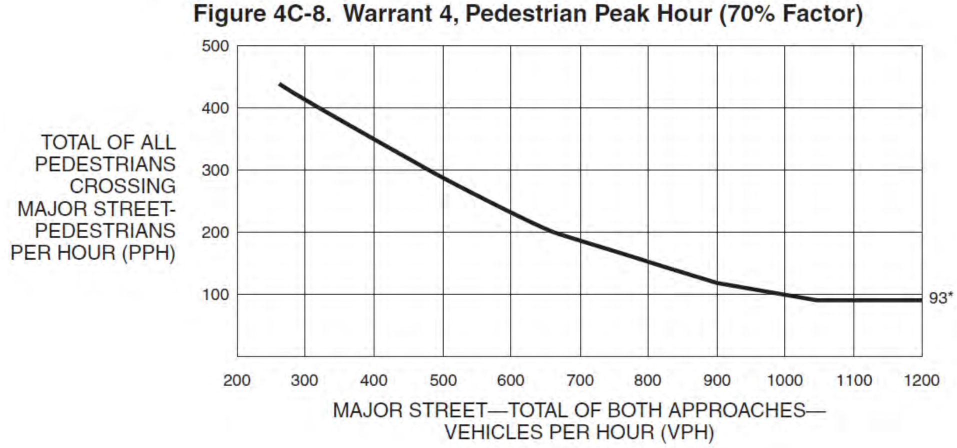
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**




*Note: 75 pph applies as the lower threshold volume.

**Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**




*Note: 93 pph applies as the lower threshold volume.

**Warrant 5, School Crossing**

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

**Warrant 6, Coordinated Signal System**

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

**Warrant 7, Crash Experience**

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 10 crashed total, 8 with multiple vehicles, 0 includes injuries or property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Not met**

**Warrant 7 not met.**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(No, proposed entering volume is 935 vehicles during the am peak hour and 941 vehicles during the PM peak hour).**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | NYS Route 144 (Full Build) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Proposed Site Driveway (Full Build) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | N |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | N |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | N |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **N** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 725 | 35* | 462 | 35* | 0 | 0 |
| 8:00-9:00 | 534 | 31* | 353 | 31* | 0 | 0 |
| 9:00-10:00 | 365 | 21* | 197 | 21* | | |
| 2:00-3:00 | 350 | 21* | 202 | 21* | | |
| 3:00-4:00 | 381 | 23* | 284 | 23* | | |
| 4:00-5:00 | 467 | 28* | 395 | 28* | | |
| 5:00-6:00 | 797 | 71* | 382 | 71* | 0 | 0 |
| 6:00-7:00 | 783 | 34* | 185 | 34* | | |
| AM Peak | 841 | 35* | 514 | 35* | | |
| PM Peak | 669 | 71* | 452 | 71* | | |

* = Projected volumes

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| NA | NA | NA | NA |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, zero hours meet warrant 1A.**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, zero hours meet warrant 1B.**

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, zero hours meet warrant 1C.**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

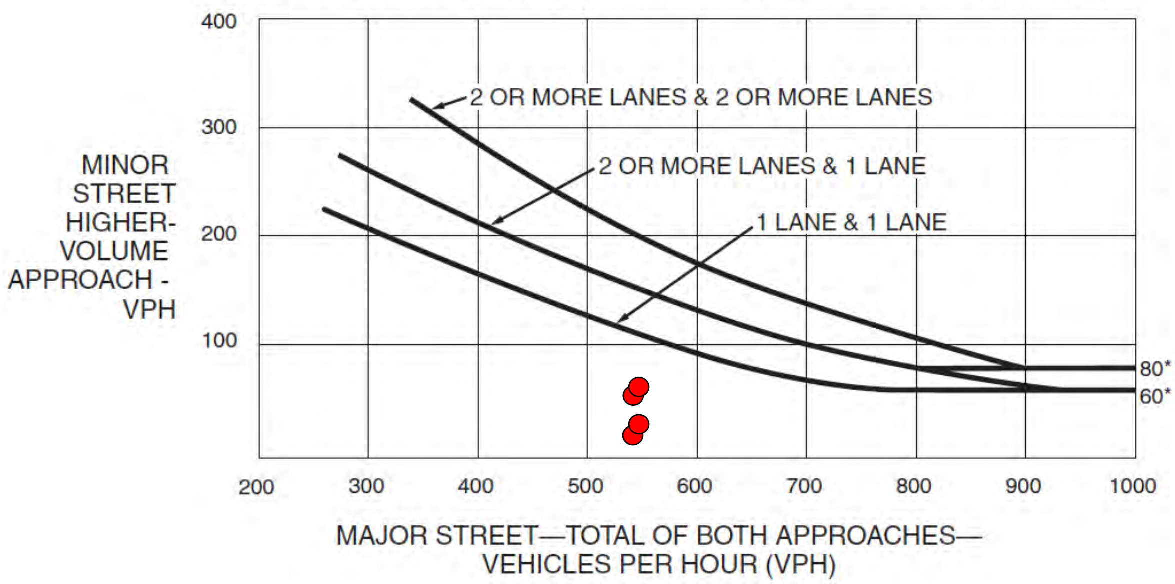
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**No hours meet Warrant 2.**

**<u>Warrant 3, Peak Hour</u>**

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**Warrant Not Met**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Minor-street approach does not exceed 100 vehicles per hour.**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**The total entering volume does not exceed 650 vehicles per.**

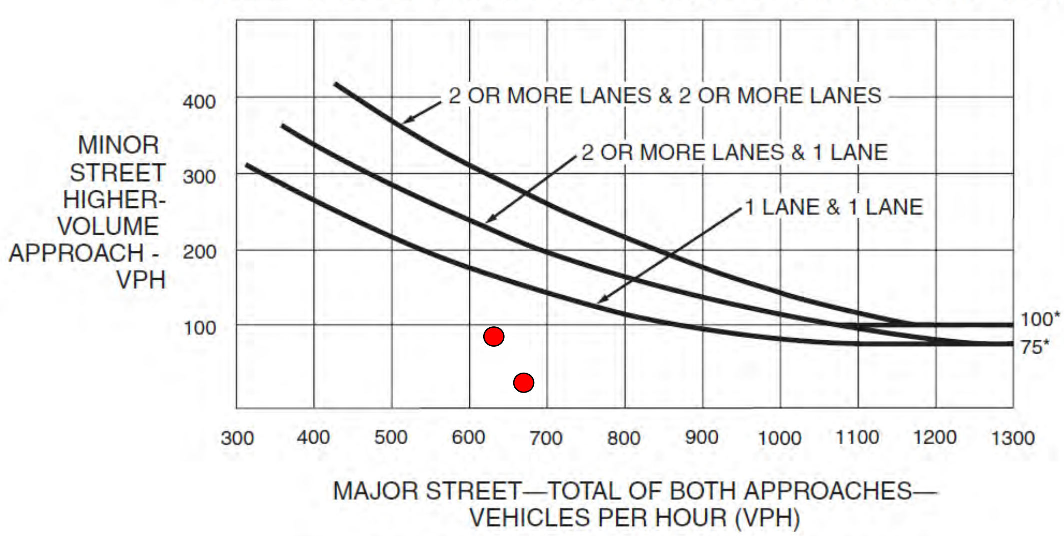
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

**No hours meet Warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

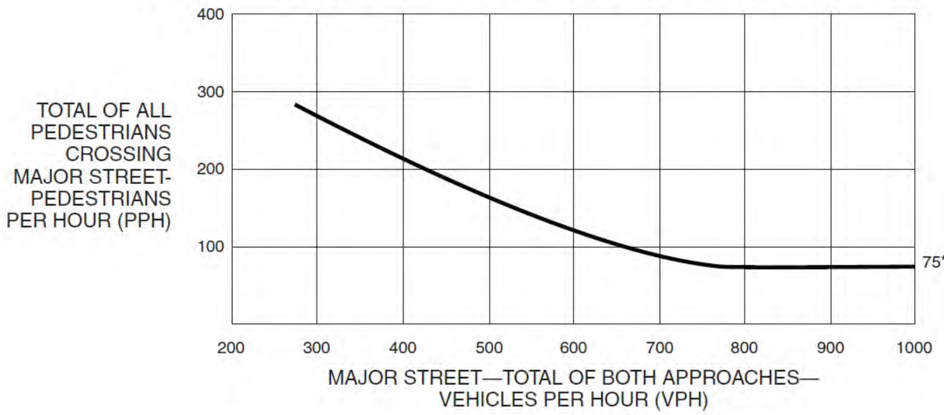
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

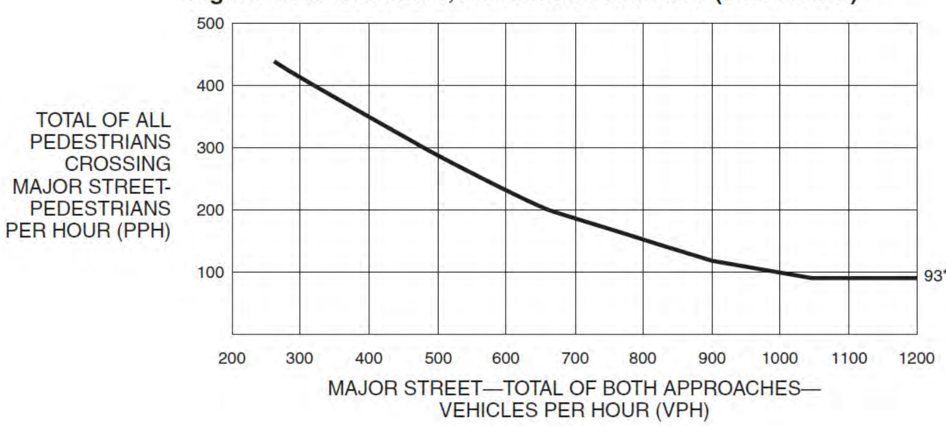
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**




*Note: 75 pph applies as the lower threshold volume.

**Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**




*Note: 93 pph applies as the lower threshold volume.

## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and **(NOT REVIEWED)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and **(NOT REVIEWED)**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours. **(NOT REVIEWED)**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(Proposed entering volume is 721 vehicles during the AM peak hour)**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# APPENDIX F

# DRINKING WATER QUALITY REPORT

**Annual Drinking Water Quality Report for 2018**
Town of Bethlehem Water District No.1
445 Delaware Avenue, Delmar, NY 12054
(Public Water Supply Identification Number NY0100191)

## INTRODUCTION

To comply with State regulations, the Town of Bethlehem Department of Public Works issues an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, we conducted tests for over 80 contaminants. We detected 27 of those contaminants, and only found 1 of those contaminants at a higher level than the State allows. As we told you at that time, our water exceeded the drinking water standard for total trihalomethanes (TTHMs) and we are continuing our efforts to rectify the problem by performing increased levels of distribution system flushing and constructing improvements to one of our water treatment plants that will result in a reduced amount of the TTHMs being formed in the distribution system.

This report is an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is to provide to you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: Mr. George S. Kansas P.E. Commissioner of Department of Public Works, 445 Delaware Ave, Delmar NY 12054, Telephone (518) 439-4955 or e-mail GKansas@townofbethlehem.org .

## WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Bethlehem Water District No. 1 draws its water from both "surface water" and "ground water" sources. During 2018, our system did not experience any restriction of our water sources. These sources are:

- Surface water drawn from the Vly Creek Reservoir located in the Town of New Scotland
- Groundwater from two (2) wells located in the Town of New Scotland
- Groundwater from eleven (11) wells located along the Hudson River
- Surface water drawn from the Alcove Reservoir located in the Town of Coeymans (City of Albany water purchased by the Town of Bethlehem)

The New Salem Water Purification Plant draws its water from the Vly Creek Reservoir, which has a storage capacity of 1.25 billion gallons. The New Salem Water Purification Plant has a peak capacity for purifying 6 million gallons of water per day. The treatment process consists of chlorination for disinfection; taste and odor control with the use of activated carbon; coagulation with aluminum sulfate; filtration with rapid sand filter, and corrosion control. There is no fluoride added to the Bethlehem Water Supply. Algae growth in the Vly Creek Reservoir is controlled by adding copper sulfate to the water and by mechanically mixing the water during the summer months. Water is pumped from the purification plant to a 5,750,000-gallon steel water storage tank. From that point, water is delivered by gravity through a network of water mains, which reach all the way from North Bethlehem to Selkirk.

There are also two deep wells to supplement the capacity of the New Salem Water Plant. We are permitted by NYS Department of Environmental Conservation to withdraw 1,130,000 gallons per day, or 1.13 million gallons per day (MGD), from the two wells combined. Groundwater or well water is stored below the surface of the earth in deep, porous rocks or porous deposits of sand or gravel called "aquifers." Groundwater is purified naturally as it filters through layers of soil, clay, rock and sand. This process, known as "percolation" takes years to complete. As a result, groundwater requires less treatment than surface water.

The Clapper Road Water Purification Plant is supplied by facilities including a groundwater infiltration system and a well field that consist of 11 drilled wells which is adjacent to the Hudson River, south of Henry Hudson Park. The Water Purification Plant has the ability to treat 6 million gallon per day. The plant uses 4 Trident filter units for water purification with chlorine as the primary disinfection agent. Chemicals used include coagulation with Polyaluminum Chloride (PAC) and a non-ionic polymer and a corrosion inhibitor.

To further strengthen the water distribution system and cooperate in a more regional approach to water supply, there are two interconnections with the City of Albany's water supply. One interconnection is located in a residential area on Kenwood Avenue and the other is in an industrial area on Creble Road. The Town currently purchases water from the City of Albany to supplement our capacity. We also have an emergency interconnect with the Town of Guilderland's water system in North Bethlehem. This interconnect can provide water from Bethlehem to Guilderland or vice versa depending upon which community needs supplemental water.

The City of Albany's water source is the Alcove Reservoir that is located on the Hannacroix Creek. Albany also has the Basic Creek Reservoir that serves as a secondary source. Treatment of Albany's water includes coagulation, sedimentation, pH, alkalinity adjustment and filtration at the Albany Filtration Plant. Chlorine is added at the Albany plant as a residual disinfectant to maintain microbiological quality throughout the distribution system. Albany does not add fluoride to its water supply. To view the City of Albany Annual Water Quality Report go to the following link; http://www.albanyny.org/Government/Departments/WaterAndWaterSupply/WaterQualityReport.aspx

### FACTS AND FIGURES

The Bethlehem Water District serves approximately 35,000 people through 11,712 service connections. In 2018, the District provided 527,488,000 gallons of water from the New Salem Plant, 160,170,000 gallons from Well #1 and Well #2, and 453,212,000 gallons of water from the Clapper Road Plant. Supplemental water purchased from Albany was 474,125,000 gallons. The total volume of water produced from all sources in 2018 was 1,614,995,000 gallons. Approximately 1,488,850,280 gallons of water were billed to customers of Water District #1. The difference (7.8%) between the volume billed and the total volume produced is water used firefighting, flushing of the water distribution system, errors in water meters and water lost to leaks.

Our water system has over 220 miles of water mains and approximately 1,670 hydrants for fire protection. It also includes several covered water storage tanks with a combined capacity of 13,200,000 gallons. Additionally, there are water storage tanks with 2,000,000 gallons and 70,000 gallons at the Clapper Road Water Treatment Plant and the New Salem Water Treatment Plant, respectively, which hold finished water before being delivered to the town's pipe network. Average daily water production for the New Salem Plant; Clapper Road Plant; Well#1; Well#2 and Albany was 4,424,644 gallons per day, or 4.42 MGD.

The charge for water in 2018 was as follows:

| Water Usage Tiers | Price per CCF[1] | Equivalent Price per 1,000 Gallons |
|---|---|---|
| Up to 500 CF[2] | $2.21 | $2.95 |
| 501 CF to 5,000 CF | $4.58 | $6.12 |
| 5,001 CF to 50,000 CF | $4.79 | $6.40 |
| 50,001 CF to 500,000 CF | $3.26 | $4.36 |
| 500,001 CF and over | $2.81 | $3.76 |

1: CCF = hundred cubic feet
2: CF = cubic feet (1 cubic foot = 7.48 gallons of water)

Water customers located outside of the Water District were billed twice the In-District rates listed above. A 10% late fee was assessed on any bill not paid by the due date.

### ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, metals including lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, synthetic organic compounds, and radioactive materials like Uranium and Radium. The tables presented below depict which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these compounds do not change frequently, though most of our data represented here is from 2018 analysis. Complete records are on file in the Water District Office. For a listing of all the parameters that we must analyze and the frequency of testing for compliance, please see the NYS Sanitary Code.

It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791), the EPA website at www.epa.gov or the Albany County Health Department at (518) 447-4620.

### INFORMATION ON UNREGULATED CONTAMINANTS

Unregulated Contaminant Monitoring 4 was conducted during 2018. This is a requirement of the 1996 Safe Drinking Water Act amendments. This monitoring provides a basis for future regulatory action to protect the public health. The number in parentheses refers to the number of measured for a total of 30 analytes. The breakdown of analytes is as follows: semi volatile organic chemicals (3), pesticides and pesticide manufacturing byproduct (9), metals (2), alcohols (3), cyanotoxin chemical contaminants (10), brominated haloacetic acid groups (3) and indicator compounds (2). We have listed those compounds that were detected in the tables presented below. There are no associated MCL's for these compounds at this time with the exception of Manganese. If you have any questions about the Unregulated Contaminant Monitoring Regulation or the results provided in the tables below, please contact the Albany County Department of Health at (518) 447-4620.

| TOWN OF BETHLEHEM WATER DISTRIC No.1 NEW SALEM PURIFICATION PLANT & WELLS TABLE OF DETECTED CONTAMINANTS *<br>Public Water Supply Identification Number NY010019 | | | | | | |
|---|---|---|---|---|---|---|
| Contaminant | Violation Y/N | Level Detected | Unit Measurement | MCLG | MCL | Likely Source of Contamination |
| **Microbiological Contaminants** | | | | | | |
| Turbidity [1] (Highest turbidity sample from 5/7/18) | N | 0.47 | NTU | N/A | TT=5 NTU | Soil runoff |
| | | 100% | | | TT= % samples <0.3 | |
| **Inorganic Contaminants (**Sample data from 10/18/18 for **WTP in boldface;** sample data from Well #1 from 4/19/16, Well #2 from 4/19/16 unless otherwise noted) | | | | | | |
| Barium | N | **25.6**<br>36-37 | ppb | 2000 | 2000 | Natural sources |
| Chloride WTP<br>Range for wells | N | **62.5**<br>70-177 | ppm | N/A | 250 | Geology; Naturally occurring |
| Color | N | **ND**<br>5-11 | units | N/A | 15 | Suspended and dissolved materials; naturally occurring organic compounds such as tannins |
| Copper (sample data 6/7/17-6/12/17)<br>Range of copper concentration | N | 0.40[2]<br>0.03-0.49 | ppm | 1.3 | AL=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; |
| Lead (sample data 6/7/17-6/12/17)<br>Range of lead concentration | N | 1[3]<br>ND-4 | ppb | 0 | AL=15 | Corrosion of household plumbing systems, erosion of natural deposits |
| Nickel | N | **0.9**<br>1.6-1.9 | ppb | N/A | 100 | Geology; Naturally occurring |
| Nitrate (as Nitrogen) WTP<br>Well samples from 10/18/18 | N | ND<br>1.83-2.55 | ppm | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Odor | N | **1**<br>1-1 | units | N/A | 3 | Natural sources |
| pH (WTP)<br>range for wells | N | **6.97**<br>6.97-7.10 | units | | 6.5-8.5 | |
| Sodium[4] (WTP)<br>Range for wells | N | **67.3** | ppm | N/A | N/A | Geology; Road Salt |
| Sulfate | | **54**<br>41-48 | ppm | N/A | 250 | Naturally occurring |
| Zinc WTP | N | **316**<br>16.4-16.7 | ppb | N/A | 5000 | Galvanized pipe; **corrosion inhibitor** |
| **Disinfection Byproducts Stage 1** | | | | | | |
| Chlorine | N | 0.81<br>0.06-1.94- | ppm | MRDLG<br>N/A | MRDL<br>4 | Used in the treatment and disinfection of drinking water |
| **Disinfection Byproducts Stage 2** (4 samples collected quarterly 2/14/18, 5/8/18, 8/7/18 & 11/12/18) | | | | | | |
| Haloacetic Acids (HAA5) [5]<br>Range of HAA5s all sites | N | 55.1<br>10.7-72 | ppb | N/A | 60 | By-product of drinking water chlorination |
| Total Trihalomethanes (TTHM)[6] Wemple Rd<br>Range of TTHMs all sites | **Y** | 98.6<br>20.8-147 | ppb | 0 | 80 | By-product of drinking water chlorination |
| **Total Organic Carbon[7]** (monthly samples from 2018) | | | | | | |
| Total Organic Carbon Monthly Compliance Ratio | N | **1.07-1.53** | N/A | Compliance ratio >=1 | TT | Organic material both natural and man made; Organic pollutants, decaying vegetation, |
| **Unregulated Contaminant Monitoring 4 (**Quarterly samples collected 1/9/18, 4/25/18, 7/23/18 &10/24/18 and Well samples collected 1/9/18 & 7/23/18) | | | | | | |
| Manganese | N | 2.8-18.7 | ppb | N/A | 300 | Naturally occurring |
| HAA6 | N/A | 1.35-19.5 | ppb | | | |
| HAA9 | N/A | 12.0-92.5 | ppb | | | |
| TOC | N/A | 3.24-4.57 | | | | |

**FOOTNOTES-**

1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected**.** State regulations require that entry point turbidity must always be below 1.0 NTU**.** The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU. We also monitor the distribution system 5 times a week with 0.62 NTU being the average turbidity.
2. The level presented represents the 90th percentile of 30 test sites. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 30 samples were collected at your water system and the 90th percentile value was the 27th sample with the fourth highest value (level detected 0.32 mg/l). The action level for copper was not exceeded at any of the sites tested.
3. The level presented represents the 90th percentile of 30 test sites. The action level for lead was not exceeded at any of the 30 sites tested.
4. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.
5. The average shown represents the highest LRAA at this site for the 1st quarter of 2018. The LRAA was not exceeded at any of the four sites during any of the 4 quarters.
6. The average is based on an LRAA. The average shown represents the highest LRAA for the 3rd quarter of 2018. The LRAA was also exceeded at this site in the other 3 quarters of 2018.
7. The Interim Enhanced Surface Water Treatment Rule (IESWTR) requires monitoring of raw and finished water Total Organic Carbon (TOC). Depending on the raw water alkalinity value, proper water treatment should remove between 15% to 35% of the raw water TOC thus reducing the amount of disinfection byproducts produced**.** The removal or compliance ratio should be 1 or greater.

| TOWN OF BETHLEHEM WATER DISTRIC No.1 CLAPPER ROAD WTP TABLE OF DETECTED CONTAMINANTS* Public Water Supply Identification Number NY0130034 | | | | | | |
|---|---|---|---|---|---|---|
| Contaminant | Violation Y/N | Level Detected | Unit Measurement | MCLG | MCL | Likely Source of Contamination |
| **Microbiological Contaminants** | | | | | | |
| Turbidity [1] (Highest turbidity sample from 7/28/18) | N | 1.5 | NTU | N/A | TT=5 NTU | Soil runoff |
| | | 100% | | | TT= % samples < 0.3 | |
| **Inorganic Contaminants** (Sample data from 10/31/18) unless otherwise noted) | | | | | | |
| Barium | N | 169 | ppb | 2000 | 2000 | Geology; Naturally occurring |
| Chloride | N | 69.6 | ppm | N/A | 250 | Geology; Naturally occurring |
| Color | N | 2 | | | | Suspended and dissolved materials; naturally occurring organic compounds such as tannins |
| Nickel | N | 0.7 | ppb | N/A | 100 | Geology; Naturally occurring |
| Odor | N | 1 | units | N/A | 3 | Natural sources |
| pH | N | 7.26 | units | | 6.5-8.5 | |
| Sodium[2] | N | 25..9 | ppm | N/A | N/A | Geology; Road Salt |
| Zinc | N | 6.3 | ppb | N/A | 5000 | Galvanized pipe; **corrosion inhibitor** |
| **Synthetic Organic Compounds** (sample from 10/18/17) | | | | | | |
| Dalapon<br>Resamples from 12/5/17 | N | 2.06<br>2.13 | ppb | N/A | 50 | Runoff from herbicide used on rights of way |
| **Disinfection Byproducts** | | | | | | |
| Chlorine (average) based on daily testing<br>Range of chlorine residual | N | 1.06<br>0.62-2.78 | ppm | MRDLG<br>N/A | MRDL<br>4 | Used in the treatment and disinfection of drinking water |
| **Total Organic Carbon[3]** (monthly samples from 2018) | | | | | | |
| Total Organic Carbon Monthly Compliance Ratio | N | 1.00-1.63 | N/A | Compliance ratio >=1 | TT | Organic material both natural and manmade; Organic pollutants, decaying vegetation, |
| **Unregulated Contaminant Monitoring Regulation 4** ( Quarterly samples collected 1/9/18, 4/25/18, 7/23/18 &10/24/18) | | | | | | |
| Manganese | N | ND-.939 | ppb | N/A | 300 | Erosion of natural deposits |
| TOC | N/A | 1.6-2.27 | ppm | N/A | N/A | |
| Bromide | N/A | 58.1-74.8 | ppb | N/A | N/A | |

**FOOTNOTES-**

1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected**.** State regulations require that entry point turbidity must always be below 1.0 NTU**.** The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU
2. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.
3. The Interim Enhanced Surface Water Treatment Rule (IESWTR) requires monitoring of raw and finished water Total Organic Carbon (TOC). Depending on the raw water alkalinity value, proper water treatment should remove between 15% to 35% of the raw water TOC thus reducing the amount of disinfection byproducts produced**.** The removal or compliance ratio should be 1 or greater.

* The tables presented for Bethlehem WD#1 depict only those analytes that were detected. Many of the test results were **NOT DETECTABLE.** The type/group (number of contaminants in each group) tested for were as follows: volatile organic compounds (53) +MTBE, synthetic organic compounds (36), asbestos, color & odor; radiological chemicals (2). The inorganic contaminants tested for and not detected were: arsenic, cadmium, chromium, mercury nitrate, silver, selenium, antimony, beryllium, sulfate thallium, iron, manganese and cyanide; microbiological contaminants -E. coli.

**Glossary of Terms Used in Data Tables**

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.
*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in $10,000.
*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
*Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.
*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
*90th Percentile Value*- The values reported for lead and copper represent the 90th percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system
*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
*Treatment Technique (TT)* -A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
*Maximum Contaminant Level Goal* - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
***Maximum Residual Disinfectant Level*** (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
***Maximum Residual Disinfectant Level Goal*** (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
*Locational Running Annual Average* (LRAA) - The LRAA is calculated by taking the average of the four most recent samples collected at each individual site.
*N/A*-not applicable

## NON-DETECTED CONTAMINANTS

According to Federal and State regulations, the Town of Bethlehem routinely monitors your drinking water for various contaminants. We monitor our water supply for more than 90 potential contaminants. Contaminants that were analyzed for but were found to be below detection limits are not included in this report, however, all required testing was completed according to Local, State, and Federal laws.

## WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables, our system was in violation of the total trihalomethanes regulation in 2018. We exceeded the MCL for the total trihalomethanes at one of our sites during each of the 4 quarters of monitoring. Trihalomethanes are byproducts of the drinking water disinfection process, which is needed to kill harmful organisms that may be in the water. The trihalomethanes form when natural organic matter (like decomposing leaves and algae) react with the chlorine that is added to the water. The EPA provides the following health effects information on trihalomethanes: "Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer." We are working closely with the EPA and NYS and Albany County Departments of Health to correct this violation. We are currently in construction for improvements at the Clapper Road WTP that will allow us to remove more natural organic matter from the water and relocate the point of chlorine addition to the end of the drinking water treatment process. This will result in a significant reduction in the formation of trihalomethanes in the distribution system and get us into compliance with the State and Federal regulation.

### DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

### INFORMATION ON LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Bethlehem is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *http://www.epa.gov/safewater/lead*

### IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to continually monitor your drinking water daily, monthly, quarterly or annually for different contaminants and report to Local, State, and Federal authorities. During 2018, our system was in compliance with applicable New York State drinking water operating, monitoring and reporting requirements for drinking water regulations.

### WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water, Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems.

A source water assessment provides information on the potential contaminant threats to public drinking water sources:

- Each source water assessment will: determine where water used for public drinking water comes from (delineate the source areas)
- Inventory potential sources of contamination that may impact public drinking water sources
- Assess the likelihood of a source water area becoming potential contaminated

SWAP summaries for each of our water sources are attached to this report.

### WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water storage facilities; and
- Saving water lessens the strain on the water system during dry spells or droughts, helping to avoid severe water use restrictions so that essential firefighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Only run the dishwasher and clothes washer when there is a full load.
- Turn off the tap when brushing your teeth and washing dishes.
- Use water saving showerheads.
- Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute.
- Water gardens and lawns for only a couple of hours after sunset or in the early morning to avoid excessive evaporation.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. If there is a period of time when no water is being used, like overnight or during the day if nobody is home, check your water meter at the beginning and end of the time period. If the meter is showing a different number at the end of the period, you have a leak.

**2018 CAPITAL IMPROVEMENTS**
We completed or continued to work on many capital projects in 2018. The design of the Clapper Road WTP was completed and put out to bid, with construction starting in January 2019. The project is scheduled to be completed by November 2020. Boiler replacement at the New Salem Water Treatment Plant was completed and put into service. A water main extension on Rt. 144 (River Road) was installed to improve water quality by eliminating two dead ends in our water distribution system. Solar Bee mixers were installed in the Vly Creek Reservoir to reduce algae growth, and tank mixers were installed in the 5.75 million gallon tank to improve water quality. Finally, a new gate system was installed on the Vly Creek Reservoir dam to better control the water levels in the reservoir.

**CLOSING**
Thank you for allowing us to continue providing you and your family with clean, quality drinking water this year. We ask that all of our customers help us protect our water system and resources. Please call the Department of Public Works at (518) 439-4955 if you have any questions or concerns.

**Town of Bethlehem**
**NY0100191**
**Source Water Assessment Summary**

The NYS DOH has completed Source Water Assessments for Bethlehem's Vly Creek Reservoir, New Salem wells and the Infiltration Gallery & well field. The assessments are summarized below. The assessments include susceptibility ratings based on the risk posed by each potential source of contamination and how likely contaminants could enter the wells, the reservoir or Hudson River. The susceptibility rating is an estimate of the potential for contamination. It does not mean that the water delivered to your home is or will become unsafe to drink. See section "Are there contaminants in our drinking water?" of this report, for information concerning low levels of contaminants in your water.

New Salem Wells: The wells draw water from a high yield aquifer. Contaminants, if present, can move relatively quickly in high yield aquifers. The assessment has determined that the wells are susceptible to the microbes; bacteria, viruses and protozoa. Microbes can originate from improperly maintained or failing septic systems. Disinfection of the well water insures that any microbes that might reach the wells will be eliminated. The assessment has also determined that the wells are susceptible to various chemical types, such as nitrates, pesticides and petroleum products. Nitrates and pesticides can come from agricultural practices. Petroleum products can originate from leaking storage tanks. Fortunately, stored fuels are some distance from the wells.

Vly Creek Reservoir: This assessment found the amount of agricultural lands in the Vly Creek Reservoir's assessment area results in a potential for protozoa and pesticide contamination. However, there are presently no notable contamination threats.

The Hudson River and Dinmore Road well field (Clapper Road WTP raw water source): The assessment found the amount of pasture in the assessment area results in a potential for protozoa contamination. There is also a high density of sanitary wastewater discharges upstream, which result in susceptibility to other contaminant categories. Non-sanitary wastewater discharges may also contribute to contamination.

Both of the Bethlehem water treatment plants perform multi-level treatment to insure you receive safe drinking water. Additionally, as this annual report shows your water is routinely monitored for a great number of potential contaminants.

A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.

**City of Albany**
**NY0100189**
**Alcove and Basic Creek Reservoirs**
**Source Water Assessment Summary**

The NYS DOH has completed a Source Water Assessment for the City of Albany's Alcove and Basic Creek Reservoirs. The assessments are summarized below. The assessments include susceptibility ratings based on the risk posed by each potential source of contamination and how likely contaminants could enter the reservoirs. The susceptibility rating is an estimate of the potential for contamination. It does not mean that the water delivered to your home is or will become unsafe to drink. See section "Are there contaminants in our drinking water?" of this report, for information concerning low levels of contaminants in your water.

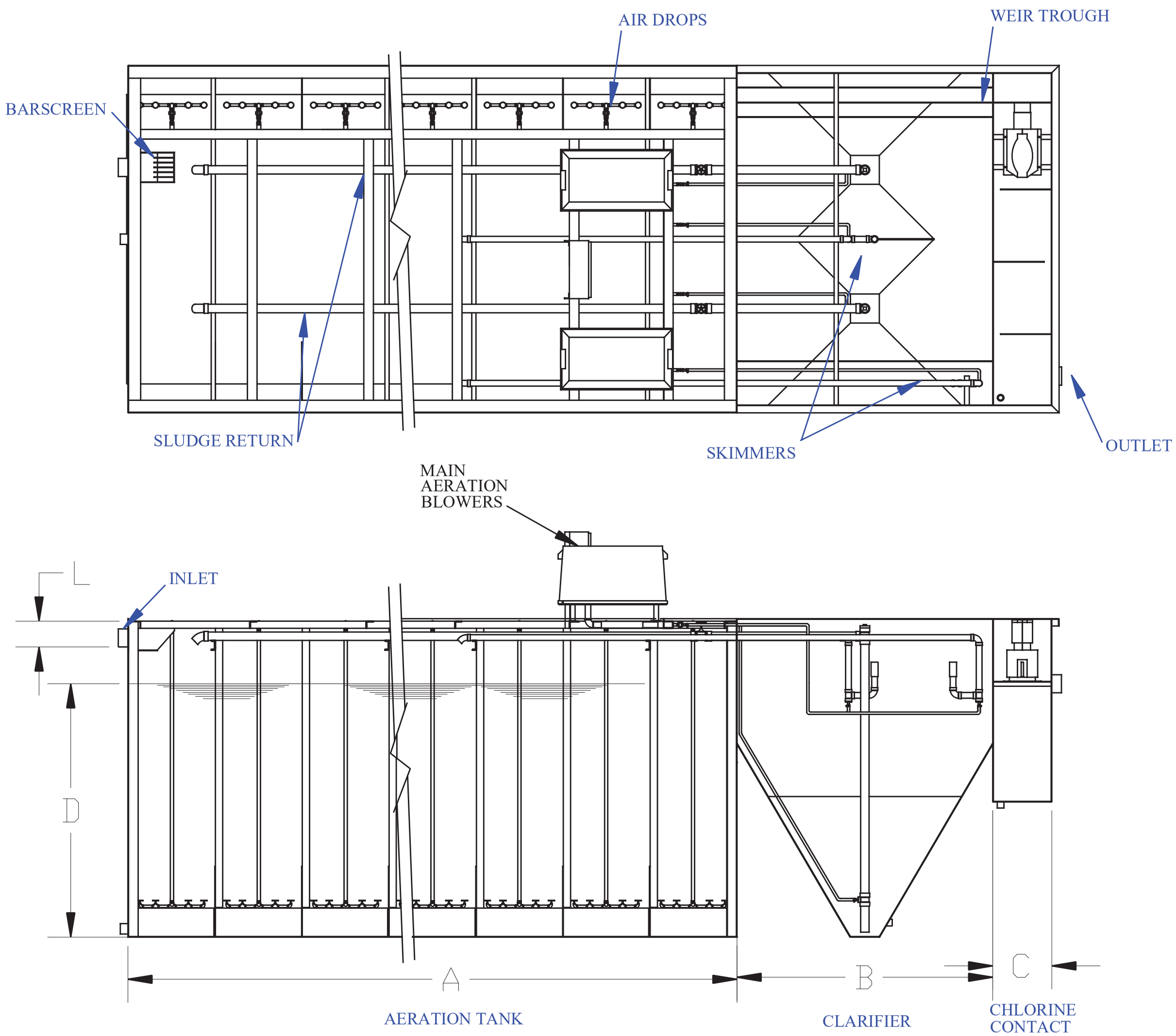
This assessment found the amount of pasture in the Alcove Reservoir assessment area results in a potential for protozoa contamination. It should be noted that the Albany Department of Water routinely tests for disease causing protozoa. In the last several years none have been detected in the reservoir. There are no other notable contamination threats to the reservoir. It should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

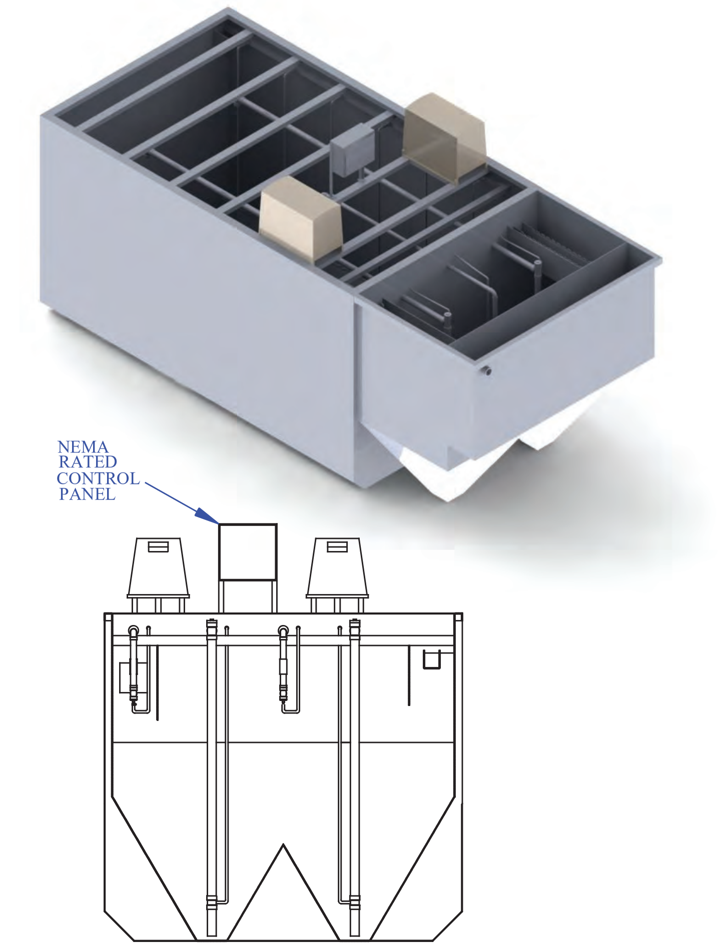
This assessment found the amount of pasture in the Basic Creek Reservoir assessment area results in a potential for protozoa contamination. While there are some facilities present that are permitted to discharge, they do not represent an important threat to source water quality based on the type of discharge. There is also notable contamination susceptibility associated with landfills north of the reservoir. It should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination. Albany's water treatment plant performs multi level treatment to insure you receive safe drinking water. Additionally, as this annual report shows your water is routinely monitored for a great number of potential contaminants.

# APPENDIX G

# ON-SITE SEWAGE TREATMENT PACKAGE

| MODEL | GPD | AERATION VOLUME | CLARIFIER VOLUME | C.C.T. VOLUME | A | B | C | D | E | F | G | H | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-15.0 | 15,000 | 15,429 | 3,242 | 399 | 18'-0" | 5'-9" | 2'-0" | 9'-8" | 11'-0" | 7'-0" | 4'-1" | 2'-6" | 4'-10" | 12'-0" | 0'-11" |
| B-16.0 | 16,000 | 16,286 | 3,242 | 428 | 19'-0" | 5'-9" | 2'-0" | 9'-8" | 11'-0" | 7'-0" | 4'-1" | 2'-6" | 5'-0" | 12'-0" | 0'-11" |
| B-17.0 | 17,000 | 17,143 | 3,242 | 457 | 20'-0" | 5'-9" | 2'-0" | 9'-8" | 11'-0" | 7'-0" | 4'-1" | 2'-6" | 5'-2" | 12'-0" | 0'-11" |
| B-18.0 | 18,000 | 18,000 | 3,242 | 485 | 21'-0" | 5'-9" | 2'-0" | 9'-8" | 11'-0" | 7'-0" | 4'-1" | 2'-6" | 5'-4" | 12'-0" | 0'-11" |
| B-19.0 | 19,000 | 19,715 | 3,242 | 514 | 23'-0" | 5'-9" | 2'-0" | 9'-8" | 11'-0" | 7'-0" | 4'-1" | 2'-6" | 5'-6" | 12'-0" | 0'-11" |
| B-20.0 | 20,000 | 20,572 | 4,202 | 657 | 24'-0" | 8'-10" | 2'-0" | 9'-8" | 11'-0" | 4'-4" | 5'-4" | 2'-6" | 6'-4" | 12'-0" | 0'-11" |
| B-22.5 | 22,500 | 23,144 | 4,202 | 657 | 27'-0" | 8'-10" | 2'-0" | 9'-8" | 11'-0" | 4'-4" | 5'-4" | 2'-6" | 6'-4" | 12'-0" | 0'-11" |
| B-25.0 | 25,000 | 25,715 | 4,202 | 657 | 30'-0" | 8'-10" | 2'-0" | 9'-8" | 11'-0" | 4'-4" | 5'-4" | 2'-6" | 6'-4" | 12'-0" | 0'-11" |



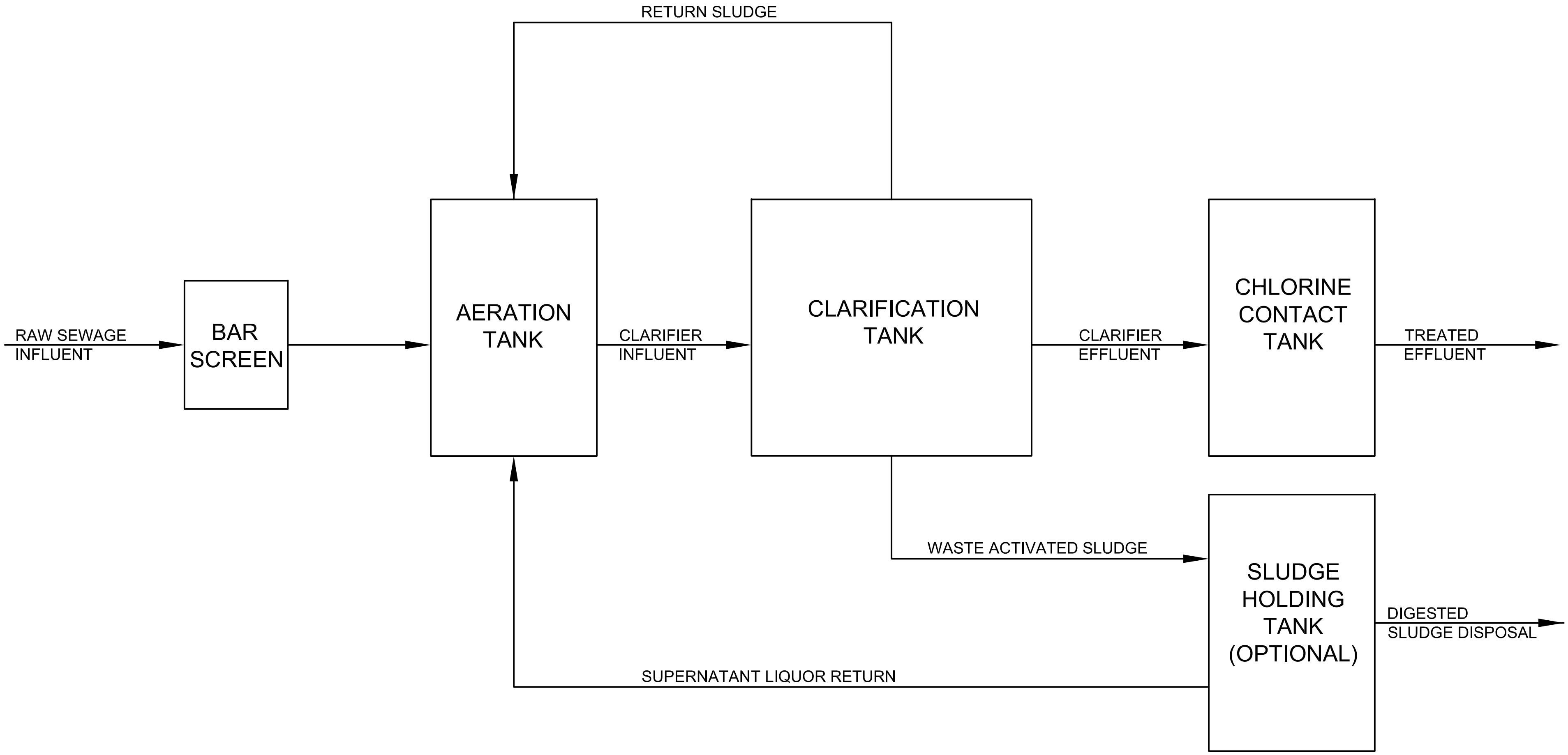




- ALL INLET AND OUTLETS ARE 4"

delta treatment systems

TITLE: STEEL PACKAGE PLANTS 15,000 GPD - 25,000 GPD

| SIZE | DWG. NO. | REV |
|---|---|---|
| A | B-15.0 TO B-25.0 | A |
| SCALE: NTS | WEIGHT: | SHEET 1 OF 1 |




**FLOW DIAGRAM**
**EXTENDED AERATION PROCESS**

DELTA ENVIRONMENTAL PRODUCTS
P. O. BOX 969 DENHAM SPRINGS, LA 70727

# SPECIFICATIONS
## DELTA EXTENDED AREATION
## WASTE TREATMENT PLANT

**GENERAL SPECIFICATIONS**
The treatment plant described by these specifications is a Delta Process Equipment Incorporated Model B-17.0 . The plant shall essentially consist of an inlet bar screen, rectangular aeration tank, air diffusion system with blower assembly, hopper type clarifier with necessary baffles and overflow weir trough, sludge return piping, surface skimmers, and chlorination tank. Additional features and accessories are as shown on the Delta Process job drawing or drawings and as hereinafter specified and described.

**OPERATING CONDITIONS**
The plant shall be capable of treating 17,000 gallons per day of domestic raw sewage waste with an organic loading of 28.57 pounds of BOD5. Load figures are based on a design population of __________and per capita daily BOD5 of _________ pounds. A minimum of 2100 cubic feet of aeration capacity shall be provided for each pound of BOD5.

**CONSTRUCTION**
The treatment plant proper shall be constructed of ¼ inch structural grade steel plate adequately braced for either above or below ground installation. All welded steel structural members shall be joined by electric arc welding. Where required for structural strength or water tightness, such welds shall be continuous.

**CORROSION PROTECTION**
Corrosion protected or corrosion resistant materials shall be used throughout. All tank surfaces shall be sandblasted to a commercial finish (SSPC-SP6). Immediately after sandblasting, one coat of coal tar epoxy shall be applied. A second coat shall be applied no later than 48 hours after application of the first coat. Total film thickness of the finished coating shall be approximately 12 mils. All grating shall be hot dip galvanized after fabrication. Cathodic protection shall be provided for below grade plants.

**SLUDGE HOLDING / DIGESTER TANK (Optional)**
A sludge holding tank shall be provided as an integral part of the aeration tank at the inlet end. The compartment shall be of fabricated steel and conform to the design of the aeration tank structure. The compartment shall provide _____ gallons capacity based on ______ people and ________ cubic feet per person.

Air shall be supplied at the rate of 30 cfm per 1000 cubic feet of tank capacity.

The sludge holding tank shall be complete with air diffuser assembly, manually operated sludge diversion valve and decant port to the aeration tank.

Digested sludge shall be drawn by manual discharge.

**INFLUENT CHAMBER**
A welded steel influent chamber shall be provided as shown on the plans to receive the incoming flow. The inlet chamber shall be designed with a bar screen fabricated of one-quarter inch by one-inch flat steel bars on two-inch centers.

**AERATION TANK**
The aeration tank shall be sized to provide 24-hour detention of the design flow. Tank design shall be such as to provide efficient mixing and aeration, and to maintain hydraulic velocities sufficient to prevent deposition of solids.

**AIR DIFFUSION**
Air diffusion drop pipes of 1-inch schedule 40 galvanized pipe shall supply air to diffusers. Each drop pipe shall have a plug valve for air adjustment and a union connection to facilitate drop pipe removal. Diffusers shall be spaced a maximum of 12 inches apart so as to insure uniform air bubble distribution. Drop pipes shall be easily removable by one man without the aid of hoists or other mechanical advantage.

**CLARIFIER**
The clarifier shall be designed so as to provide optimum liquid-solid separation and shall be sized to provide four hours detention of full design flow. Hopper walls shall be sloped a minimum of 1.7 vertical to 1.0 horizontal with the flat bottom area of the hopper no greater than one square foot. Surface rise rate shall not exceed 400 gallons per square foot per day based on a 24-hour runoff period. The settling tank shall include inlet hydraulic baffling, scum baffles, and effluent weir trough. Adjustable multiple V-notch PVC weir plates secured with stainless steel machine screws shall be provided for final leveling at the effluent trough. The average effluent weir overflow rate shall not exceed 1,700 gallons per day per foot of weir length.

**SLUDGE RETURN**
A 3-inch diameter airlift sludge pump, with piping for routing the sludge to the inlet of the aeration tank, shall be provided in each clarifier hopper. A plug valve shall be provided for air adjustment to vary the pumping rate from 50 to 150% of average daily flow. The pump shall be constructed of schedule 80 PVC pipe. A removable plug shall be provided at the top of the pump to allow cleaning and maintenance.

**SCUM RETURN**
Two scum pumps shall be provided in the clarifier to return scum to the aeration tank. The pump inlets shall be vertically adjustable to maximize skimmer efficiency. Plug valves shall be provided for air adjustment. The pumps shall be constructed on 2-inch diameter schedule 80 PVC pipe.

**CHLORINE CONTACT TANK**
A chlorine tank shall be included integral to the treatment plant proper to achieve chlorination of the final effluent. The tank shall be baffled to provide proper mixing and shall be sized to provide a detention time of not less than 30 minutes at design flow.

**CHLORINATION**
A chlorinator shall be provided for chlorination of the plant effluent. The chlorinator shall operate on the flow-through principal. Flow through the chlorinator is regulated by a weir plate sized to provide water contact with the appropriate number of tablets in the feed tubes for constant, controlled dosage.
The chlorinated effluent then flows through the chlorine tank where it is held for the required time to permit effective disinfection before final discharge. The chlorinator shall be a Jet Model 108.

**BLOWERS**
Provide duplex air blower / blowers, with sufficient capacity to furnish total treatment plant air requirements. Each blower shall be capable of delivering 80 cfm at 5.0 psi discharge pressure. The blower assembly shall be mounted on a structural steel base and will be complete with inlet filter silencer and vibration isolation pipe coupling. When duplex blowers are provided, each blower shall be equipped with a check valve. Belt drive assemblies shall be furnished complete with sheaves, bushings and belts as required. A molded fiberglass enclosure shall be furnished for each blower-motor assembly to provide weather protection and noise suppression. The blower shall be a positive displacement Sutorbilt Model 3M.

**BLOWER MOTOR**
Each blower shall be driven by a 5.0 HP, ____ phase, _______ volt, 60-cycle 2,075 RPM, drip proof electric motor. Motor shall not be loaded beyond nameplate ratings.

**ELECTRICAL**
A factory assembled electrical control center shall be provided. The control center shall contain circuit breakers of the thermal magnetic type for disconnect purposes and protection of motor branch circuits. Circuit breakers shall also be provided for control and accessory circuits. Magnetic starters shall include overload protection in all phase legs and shall be of the ambient compensated type. A time clock shall be provided to vary the running time of each blower and to alternate the blowers on plants where dual blowers are supplied. All components shall be internally wired to a numbered terminal strip for convenient wiring by electrical contractor. The control center enclosure shall be of NEMA 4X construction. Manual switches shall be provided for electrical equipment mounted on the plant. All electrical conduit, wiring, and connections from the power pole or source to the manufacturer’s control panel, and from the panel to job assembled equipment on the treatment plant shall be the responsibility of the contractor.

**PIPING**
All necessary piping and valves inside the plant shall be provided by the manufacturer. At the exterior wall of the plant, as shown on the plans, the manufacturer shall provided properly sized inlet and outlet grout boxes. The manufacturer shall not be responsible for piping or valves outside of the treatment plant. All air valve actuators inside the plant shall be readily accessible to the operator.

**GRATING, LADDER, AND HANDRAIL**
Galvanized bar grating of adequate strength supported by heavy structural steel braces shall be provided over the service access areas of the plant. The grating shall be constructed of rectangular steel bearing bars with cross bars every 4 inches. Sections of grating over areas requiring service access shall be limited to a size readily removable by one man. Complete grating over the entire plant shall be optional.

An access ladder shall be provided for above ground plants. Uprights shall be constructed of steel angle with rungs of ¾" minimum diameter. The ladder shall be of welded construction with a maximum of 12" rung spacing.

A handrail shall be provided, as required, around grating walkway areas. The railing and uprights shall be constructed of steel angle joined together by electrical arc welding. The handrail shall be built in compliance with OSHA requirements and corrosion protected in a manner similar to the treatment plant proper.

**START UP**
After the treatment plant has been installed with all necessary electrical connections completed and influent and effluent piping in place, the manufacturer shall inspect the installation, inform the owner as to any necessary adjustments, and, instruct the plant operator on proper operation of the plant. A maintenance manual shall be provided for the operator. The manual shall include normal operation description, maintenance schedule, wiring diagram, and manufacturer's equipment manuals for major components.

**WORKMANSHIP AND EXPERIENCE**
All workmanship and materials shall be of the highest quality. The waste treatment plant shall be the product of an experienced manufacturer actively engaged in research and development of sewage treatment facilities.

# APPENDIX H

# 60 FOOT BUILDING PHOTO SIMULATION

Location 1: at the end of South Port Street looking south into the site.

Location 2: at northwest property line of the project looking east into the site.

Location 3: on NYS Route 144 at the proposed southwest entrance to the project looking east into the project site.

Location 4: on Glenmont Road at the location of cleared vegetation allowing a view of the Hudson valley looking east toward the project.

Location 5: on the Hudson River looking west into the site.

## APPENDIX I

## EMERGENCY SERVICES CORRESPONDENCE

# SELKIRK FIRE DISTRICT

**BOARD OF FIRE COMMISSIONERS**
P.O. Box 5, Selkirk, New York 12158
(518) 767-0010 Fax: (518) 767-0015

Charles Wickham Jr., *Chairman*

Robert Burns, Deputy Chairman
Edward Ward, Commissioner
Stephanie Krause, Secretary
Mitchell Lake, Commissioner
Timothy Stark Sr., Commissioner
Doug Ophardt, Treasurer

---

10-18-19

Ashley A. Erdmann, PE
McFarland-Johnson Inc.
60 Railroad Place Suite 402
Saratoga Springs, New York 12866

RE: Port of Albany Expansion Project - Beacon Island Property, Town of Bethlehem

Dear Ms. Erdmann,

During our recent discussions you indicated this project is an expansion of the current Port of Albany within the Town of Bethlehem, south of the Normans Kill Creek. Your map indicates a maximum building (worst case scenario) of 1.13 million Sq. Ft. could be built. However, a specific tenant/project has not been identified, therefore additional discussions will be required once a tenant is acknowledged and the use of the site is made available. Only then will we be able to discuss additional resources, if any.

We also discussed the following:

- The need for adequate water supply.
- Future planning to extend municipal water further into the Port facility.
- Designated Drafting site along the Hudson River.

In conclusion, The Selkirk Fire District will serve this proposed project along with our mutual- aid Departments if needed.

Thank you for asking for our input, and we look forward to work with you and The Albany Port District Commission in the future.

Respectfully,

*Charles Wickham Jr.*

**Charles A. Wickham Jr.**
Chairman-Board of Fire Commissioners
(c) 518-669-7816
cwickham@selkirkfd.org

CC: Commissioners
Chief

# McFarland Johnson

60 Railroad Place
Suite 402
Saratoga Springs, NY 12866
Phone: (518) 580-9380
Fax: (518) 580-9383
www.mjinc.com

# TELEPHONE CONVERSATION MEMO

**NAME/COMPANY:** Charles Wickham and Stephanie Krause from Selkirk Fire Department, Steve Boisvert and Ashley Erdmann McFarland Johnson, and Richard Hendrick of the Port of Albany

**DATE:** October 8, 2019

**TIME:** 10:00am

**SUBJECT:** Port of Albany Expansion Project

**PROJECT NO.:** 18437.00

---

Summary:

- MJ provided a brief overview of the Project, the emergency access driveways, and the proposed water supply. The Project Site currently has no municipal water.
    - The Project will be tying into the Town water and bringing water to the site through two (2) potential connection points
        - Commissioner Wickham asked if we could help get water to buildings north across the Normans Kill.
            - Port agreed to provide a watermain stub on site just south of the Normans Kill for future extension
    - The building will include a sprinkler system with a fire exterior loop
- Commissioner Wickham requested adequate access for a pumper truck to be able to draw water from the Hudson River. This could be accomplished as follows:
    - Project can accommodate either via a wharf or specifically created flat, solid area adjacent to river, or
    - Project can provide a dry hydrant
- Commissioner Wickham stated a 1.13 million SF building at 85 FT tall can be serviced through their existing mutual aid connections with other local firefighting departments, i.e. City of Albany
- Commissioner Wickham stated they would provide a “Will Serve” letter by the end of the week for the Port of Albany Expansion Project

# APPENDIX J

# UPDATED ECONOMIC & FISCAL IMPACT REPORT

# Economic & Fiscal Impact

## Port of Albany Expansion Project


camoin associates
ECONOMIC DEVELOPMENT

310 Ltd

120 West Avenue, Suite 303

Saratoga Springs, NY 12866

518.899.2608

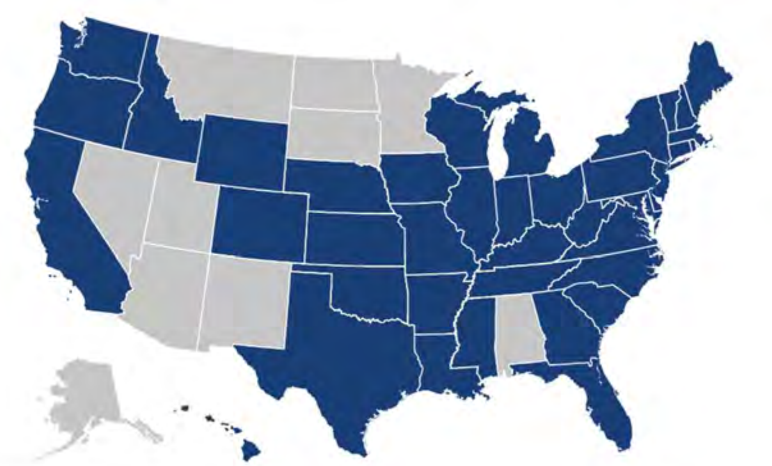
## ABOUT CAMOIN 310

Camoin 310 has provided economic development consulting services to municipalities, economic development agencies, and private enterprises since 1999. Through the services offered, Camoin Associates has had the opportunity to serve EDOs and local and state governments from Maine to California; corporations and organizations that include Lowes Home Improvement, FedEx, Amazon, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects in excess of $6 billion. Our reputation for detailed, place-specific, and accurate analysis has led to projects in 40 states and garnered attention from national media outlets including Marketplace (NPR), Forbes magazine, The New York Times and The Wall Street Journal. Additionally, our marketing strategies have helped our clients gain both national and local media coverage for their projects in order to build public support and leverage additional funding. We are based in Saratoga Springs, NY, with regional offices in Portland, ME; Boston, MA; Richmond, VA and Brattleboro, VT. To learn more about our experience and projects in all of our service lines, please visit our website at **www.camoinassociates.com**. You can also find us on Twitter **@camoinassociate** and on **Facebook**.

### THE PROJECT TEAM

Rachel Selsky, AICP
*Project Principal*

Daniel Stevens, AICP
*Project Manager and Analyst*



# CONTENTS

# EXECUTIVE SUMMARY

The Albany Port District Commission (APDC) recently purchased approximately 81 acres of vacant land in the Town of Bethlehem to expand industrial port operations (referred to as "Port of Albany Expansion Project" or the "Project"). The addition of 81 acres of land, known formally as Beacon Island, increased the size of the port district by 25% and will allow the port, which had been fully built out, to attract new business investment and development. While no specific tenants or projects have been identified to date, APDC has been exploring several development scenarios with project sizes ranging from 1.13 million square-feet to 160,000 square feet. An analysis was conducted by Camoin 310 to estimate the total economic impact and fiscal benefits of developing the site for future industrial operations. The following development scenarios were provided by McFarland Johnson and Camoin 310 did not analyze the market viability of these concepts.

| Port Development Concepts | | |
|---|---|---|
| Concept ID | Total Square Feet | Description |
| **A.** | 1,130,000 | Single 1-Story Industrial Building |
| **B.** | 900,800 | Single Industrial Building With 2-Story Admin |
| **C.** | 810,000 | Four 1-Story Industrial Buildings, Each with 2-Story Admin |
| **D.** | 160,000 | Single 1-Story Industrial Building with 2-Story Admin |
| **D.1** | 508,000 | Single 1-Story Industrial Building with 2-Story Admin |

*Source: McFarland Johnson*

## Economic Impact

Based on the economic impact analysis and assumptions developed, the total new jobs, earnings, and sales were calculated for Albany County. Assuming the maximum build out of the property to a 1.13 million square-foot industrial facility, the Port of Albany Expansion Project has the potential to generate approximately 1,670 new jobs in Albany County, with $102 million in new annual earnings for workers, and approximately $295 million in new sales. The total economic impact includes "spinoff" economic activity that occurs in the County. Approximately one-out-of-three permanent jobs generated in the County as a result of annual operations will exist off-site at other businesses in Albany County.

The Project will also have a significant one-time construction impact, with the potential to generate a one-time boost of between $48.1 million and $113 million in sales to the local economy. The total job impact from construction of the project is estimated to range from approximately 470 up to 1,100, including construction jobs and jobs in supporting industries in the local economy during the construction phase.

| Port of Albany Expansion Project Economic Impact to Albany County | | | | | |
|---|---|---|---|---|---|
| | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Total One-Time Economic Impact from Construction | | | | | |
| **Jobs** | 1,100 | 770 | 715 | 468 | 605 |
| **Earnings** | $ 40,800,000 | $ 28,600,000 | $ 26,600,000 | $ 17,400,000 | $ 22,500,000 |
| **Sales** | $ 113,000,000 | $ 79,200,000 | $ 73,500,000 | $ 48,100,000 | $ 62,200,000 |
| Total Annual Economic Impact From Operations | | | | | |
| **Jobs** | 1,670 | 1,330 | 1,200 | 522 | 1,660 |
| **Earnings** | $102,000,000 | $80,900,000 | $72,800,000 | $48,100,000 | $153,000,000 |
| **Sales** | $295,000,000 | $235,000,000 | $211,000,000 | $145,000,000 | $459,000,000 |

Source: Camoin 310

## Fiscal Benefits

The analysis examined the local fiscal benefits that will be generated by the Project, including new property and sales tax revenue. The total annual fiscal benefits of the Project are estimated to range from between $4.65 million to $14.2 million, depending on the development concept selected. The most significant portion of these benefits will be realized by Albany County through new sales tax revenues and property tax revenues (directly from the project itself and new tax revenues generated off-site as a result of the economic impact of the project).

| Summary of Annual Fiscal Benefits | | | | | |
|---|---|---|---|---|---|
| | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| County Sales Tax Revenue | $ 711,000 | $ 566,000 | $ 509,000 | $ 337,000 | $ 1,070,000 |
| County Property Tax Revenue | $ 6,540,000 | $ 5,210,000 | $ 4,690,000 | $ 3,210,000 | $ 10,200,000 |
| Bethlehem Central School District Property Tax Revenue* | $ 4,330,000 | $ 3,460,000 | $ 3,120,000 | $ 2,080,000 | $ 6,580,000 |
| Town of Bethlehem and Other Local Property Tax Revenue* | $ 1,000,000 | $ 801,000 | $ 723,000 | $ 481,000 | $ 1,520,000 |
| **Total Tax Revenues** | **$ 13,000,000** | **$ 10,700,000** | **$ 10,000,000** | **$ 4,650,000** | **$ 14,200,000** |

Source: Camoin 310

*Includes both direct on-site impacts and off-site impacts generated from economic impact of development

## Fiscal Costs (Municipal Services)

The potential increase in fiscal costs was examined, including potential cost increases for municipal service providers. Representatives of the Bethlehem Police Department, the Selkirk Fire Department, and Delmar-Bethlehem EMS were interviewed. Based on the input provided, minor new costs are expected for the Bethlehem Police Department and Delmar-Bethlehem EMS, as follows:

| Summary: Annual Municipal Service Cost Impacts (Concept A) | | |
|---|---|---|
| Service Provider | Type of Impact | Estimated Annual Cost Increase |
| Bethlehem Police Department | Increased overtime expenditures associated with incremental call volume | $ 15,743 |
| Delmar-Bethlehem EMS | Incremental net increase in staffing costs associated with incremental call volume | $ 2,558 |
| **Total** | | **$ 18,302** |

*Source: EMSI; Camoin 310*

## School District Impact

The impacts to the Bethlehem Central School District (the "District") were studied to understand potential new revenue and new costs the District could expect as a result of the Project. As a purely industrial development, the Project will not directly generate any new school aged children who will be enrolled in the District and therefore no new costs to the district attributable to the Project are anticipated.

As a result, the District will therefore experience a net fiscal benefit from the Project due to an influx of new property tax revenue and no new costs. The initial annual estimated new property tax revenues from the Property and the economic impacts generated within the School District are expected to total between $2.1 million and $6.7 million, depending on the development concept. A 10-year projection of the property tax revenue generated by the Project for the District indicates the potential for between $21.2 million and $67.3 million in new property tax revenue for the district over 10 years.

| Estimated School District Tax Revenues (Indirect Off-Site Revenue) (10-Years) | | | | | |
|---|---|---|---|---|---|
| | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| **10-Year Total** | $ 44,300,000 | $ 35,400,000 | $ 31,900,000 | $ 21,200,000 | $ 67,300,000 |
| **10-Year Average** | $ 4,430,000 | $ 3,540,000 | $ 3,190,000 | $ 2,120,000 | $ 6,730,000 |

Source: Camoin 310

# 1. INTRODUCTION

The Albany Port District Commission (APDC) recently purchased approximately 81 acres of vacant land in the Town of Bethlehem to expand industrial port operations (The "Port of Albany Expansion Project" or the "Project"). The addition of the land, known formally as Beacon Island, increased the size of the port district by 25% and will allow the port, which had been fully built out, to attract new business and development. While no specific tenants or projects have been identified to date, APDC has been exploring what future development may occur on the property by identifying several development concepts ranging from 1.13 million square feet to 160,000 square feet.

McFarland Johnson is working with the Port to prepare a Draft Generic Environmental Impact Statement as part of the State Environmental Quality Review (SEQR) process for future development of the property. McFarland Johnson commissioned Camoin 310 to complete an economic and fiscal impact study to address the local fiscal and economic impact of the project and any potential impacts to the Bethlehem Central School District.

Specifically, the following analyses are included in this report:

### ECONOMIC IMPACT

- One-time economic impact from construction of new facilities
- Annual economic from new industrial business operations

### FISCAL IMPACT

- New local fiscal revenues including property tax revenue and sales tax revenue
- New municipal service delivery costs to local government (emergency services and highway maintenance)

### SCHOOL DISTRICT IMPACT

- Identification of new costs to the school district
- Estimated new school district property tax revenues

## 1.2 Development Scenarios

A total of five port development concepts were prepared by McFarland Johnson, as shown in the table below. The property is currently zoned as Heavy Industrial (HI) and it is anticipated that any new development will be consistent with the allowable industrial uses within the district. As no specific types of industrial uses have been identified (e.g., manufacturing, warehousing), this analysis assumes "general" industrial development will occur. Specific methodologies are detailed further in Section 2. No market analysis was conducted as part of this report to determine the viability of these concepts.

Concept A, consisting of a 1.13 million square foot two-story industrial use facility represents the maximum development potential of the site based on existing zoning and site capacity and is the focus of this analysis as the "preferred alternative." The economic and fiscal impacts are also presented for the alternative concepts.

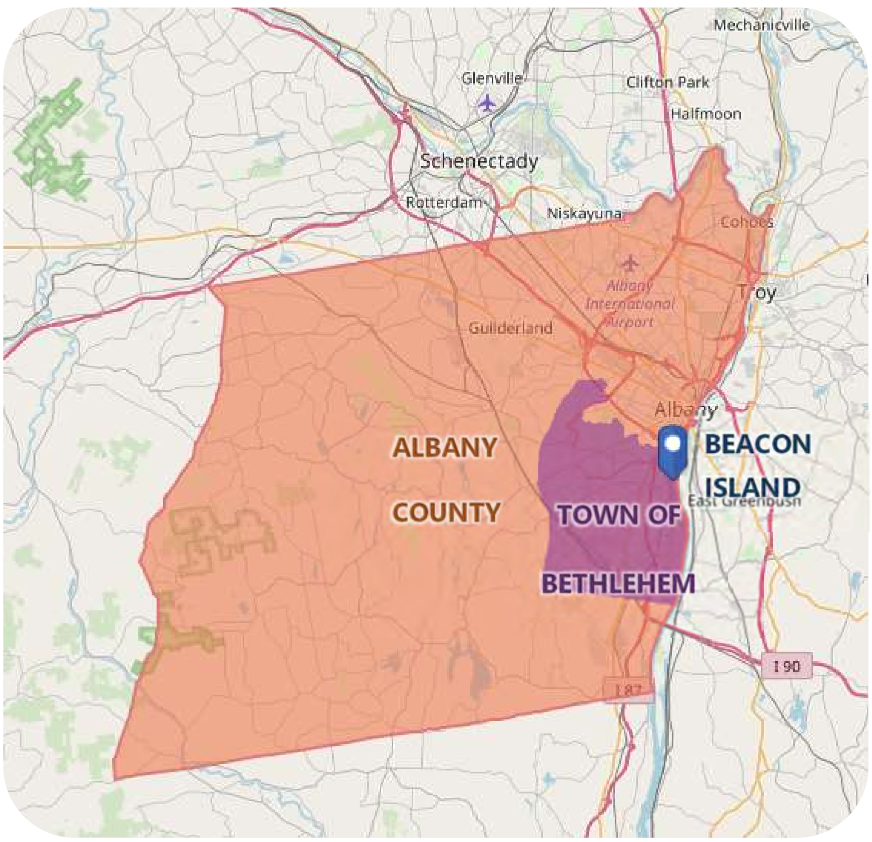
| Port Development Concepts | | |
|---|---|---|
| Concept ID | Total Square Feet | Description |
| **A.** | 1,130,000 | Single 1-Story Industrial Building |
| **B.** | 900,800 | Single Industrial Building With 2-Story Admin |
| **C.** | 810,000 | Four 1-Story Industrial Buildings, Each with 2-Story Admin |
| **D.** | 160,000 | Single 1-Story Industrial Building with 2-Story Admin |
| **D.1** | 508,000 | Single 1-Story Industrial Building with 2-Story Admin |

*Source: McFarland Johnson*

## 1.3 Analysis Geographies

The economic impact analysis considers the new economic activity generated by the Project within Albany County. As such, results are reported as new jobs, wages, and sales generated countywide.

Fiscal impacts are examined at each local level where substantial effects would be expected, including Albany County, the Town of Bethlehem, and relevant local taxing jurisdictions. The following reference map shows the geographies of Albany County, the Town of Bethlehem, and the location of the subject property (Beacon Island).

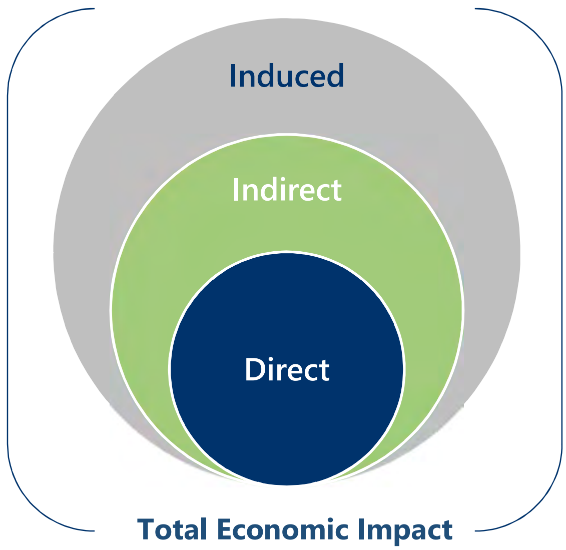


# 2. ECONOMIC IMPACT

## Methodology

The economic impact includes not only the "direct" economic impacts, such as on-site jobs, but also the secondary economic impacts that are generated throughout the economy through the economic "ripple" effect. The three specific types of impacts considered in the analysis include:

**Measuring the Total Economic "Ripple Effect"**




- **Direct:** The most immediate impacts, which include the jobs at new businesses that locate on the site and the local spending on goods and services by those new businesses.
- **Indirect:** Indirect effects occur at businesses within Albany County that supply goods and services to new businesses on Beacon Island and re-spend a portion of that revenue. In other words, for every dollar spent by a new Beacon Island business at a local supplier, a portion of that dollar will again be spent on goods and services at other businesses in the county. This is considered the indirect effect.
- **Induced:** Another "ripple" effect that occurs is when workers at both directly impacted businesses and indirectly impacted businesses spend a portion of their wages at businesses within Albany County for things such as retail goods and services. The portion of the spending by new businesses on Beacon Island that is paid to workers and re-spent in the county economy is consdiered the induced impact.

The sum of the direct, indirect, and induced impacts equals the total economic impact of new industrial development. The EMSI Input-Output model is used to calculate the total economic impact, including the three different types of impacts.

## Economic Impact of Construction

### Estimated Construction Costs

Preliminary order of magnitude construction cost estimates were provided by McFarland Johnson for each of the development scenarios. The costs range from a high of $200 million (Concept A) to a low of $85 million (Concept D). The costs include new building construction, site work, bridge construction, rail extensions, and a wharf.

Due to the fact that no specific development proposals currently exist, it is not possible to know the proportion of construction spending on labor and materials that will be sourced from within Albany County. To estimate the impact specific to Albany County, the portion of construction services sourced from within Albany County (contractors based in the county) was estimated by determining the number of existing industrial building and heavy civil engineering construction jobs in Albany County relative to the Capital Region as a whole. Albany County's proportion of these jobs was found to be approximately 42%. Therefore, the analysis assumes that 42% of construction spending will occur within Albany County.

The estimated construction cost for each concept is shown in the following chart along the with estimated portion of that cost that will be spent within Albany County.

| Estimated Construction Costs | | | |
|---|---|---|---|
| Concept ID | Total Square Feet | Estimated Construction Cost | Est. Construction Spending in Albany County |
| **A.** | 1,130,000 | $ 200,000,000 | $ 84,000,000 |
| **B.** | 900,800 | $ 140,000,000 | $ 58,800,000 |
| **C.** | 810,000 | $ 130,000,000 | $ 54,600,000 |
| **D.** | 160,000 | $ 85,000,000 | $ 35,700,000 |
| **D.1** | 508,000 | $ 110,000,000 | $ 46,200,000 |

*Source: McFarland Johnson; Camoin 310*

## Construction Impact Analysis

The results of the analysis are shown below for each of the concepts. Note that "induced" impacts are included in the "indirect" impacts reported below.

| One-Time Construction Economic Impact: Scenario A | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| Jobs | 932 | 168 | 1,100 |
| Earnings | $ 31,182,429 | $ 9,666,553 | $ 40,848,982 |
| Sales | $ 84,000,000 | $ 29,139,130 | $ 113,139,130 |

*Source: EMSI; Camoin 310*

| One-Time Construction Economic Impact: Scenario B | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| Jobs | 653 | 117 | 770 |
| Earnings | $ 21,827,700 | $ 6,766,587 | $ 28,594,287 |
| Sales | $ 58,800,000 | $ 20,397,391 | $ 79,197,391 |

*Source: EMSI; Camoin 310*

| One-Time Construction Economic Impact: Scenario C | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| Jobs | 606 | 109 | 715 |
| Earnings | $ 20,268,579 | $ 6,283,259 | $ 26,551,838 |
| Sales | $ 54,600,000 | $ 18,940,435 | $ 73,540,435 |

*Source: EMSI; Camoin 310*

| One-Time Construction Economic Impact: Scenario D | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| Jobs | 396 | 71 | 468 |
| Earnings | $ 13,252,532 | $ 4,108,285 | $ 17,360,817 |
| Sales | $ 35,700,000 | $ 12,384,130 | $ 48,084,130 |

*Source: EMSI; Camoin 310*

| One-Time Construction Economic Impact: Scenario D.1 | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| Jobs | 513 | 92 | 605 |
| Earnings | $ 17,150,336 | $ 5,316,604 | $ 22,466,940 |
| Sales | $ 46,200,000 | $ 16,026,522 | $ 62,226,522 |

*Source: EMSI; Camoin 310*

## Economic Impact of Operations

### Estimated On-Site Jobs

The first step to understanding the total annual economic impact of each development concept is to estimate the number of on-site (direct) jobs that can be expected. The number of jobs at industrial facilities is closely correlated with the size and type of facility. Typically, industrial facilities employ one worker per 500 to 1,500 square feet with higher intensity operations such as manufacturing employing a greater number of workers per square foot compared to a use such as warehousing and distribution. The square feet per job ratio can even vary within categories. For example, a traditional warehouse may employ one worker per 1,500 square feet or greater, while on average a large-scale e-fulfillment center requires one employee per 700 to 1,000 square feet of space.[1]

Development concepts A, B, and C do not assume any particular type of industrial space or business. Therefore, the analysis examined the range of industrial jobs to square feet ratios to determine an appropriate value to utilize in estimating the number of on-site jobs.

| Square Feet of Industrial Space per Worker | | |
|---|---|---|
| Square feet per Worker | Space Type | Source |
| 527 | General Industrial | BOMA |
| 2,000 | Regional Warehouse | URS |
| 2,000 | Refrigerated Distribution | URS |
| 500 | Flex | URS |
| 781 | Warehousing/Storage | ITE |
| 535 | Manufacturing | ITE |
| 549 | General Light Industrial | ITE |
| 549 | Heavy Industrial | ITE |
| 500 | Industrial Park | ITE |
| 535 | Manufacturing | ITE |
| 781 | Warehousing/Storage | ITE |
| 850 | Warehousing/Storage | NAIOP |
| 900 | General Industrial | NAIOP |
| 1,572 | Warehousing/Storage | U.S. EIA |
| 2,114 | Warehousing/Storage | USDOE |

**Sources:**

| | |
|---|---|
| BOMA | Building Owners and Managers Association |
| URS | URS Community Planning & Urban Design Group |
| ITE | Institute of Transportation Engineers |
| NAIOP | Commercial Real Estate Development Association |
| U.S. EIA | U.S. Energy Information Administration |
| USDOE | U.S. Department of Energy |

The table to the right provides several estimates for industrial square feet per worker ranging from 500 to approximately 2,100. The average of the identified values

[1] NAIOP Commercial Real Estate Development Association. "E-Commerce is Growing, and So is Demand for Warehouse Labor." 2017.

is 980, which is in line with the industry standard approach of 1,000 square feet of industrial space per worker. **Therefore, the 1,000 SF/worker ratio ("employment ratio") is used for the analysis for Concepts A, B, and C.**

Concepts D and D.1 anticipate industrial activity related specifically to the off-shore wind generation industry. Specifically, they were designed with more job intensive activities in mind, including manufacturing and assembly activities such as the assembly of towers for wind turbines. The square feet per worker for manufacturing space is typically less than other uses such as warehousing/storage. **Therefore, based on the research shown in the table above and generally acceptable industry standards, the ratio of 500SF/worker is used in the analysis for Concepts D and D.1**

As shown in the table to the right, the employment ratio is applied to the total (gross) square footage of each of the development concepts to estimate the total number of on-site jobs. The estimated on-site jobs range from a high of 1,130 (Concept A) to a low of 320 (Concept D).

| Estimated Jobs: Annual Operations | | | |
|---|---|---|---|
| Concept ID | Total Square Feet | Employment Ratio (SF per worker) | Estimated Permanent On-Site Jobs |
| **A.** | 1,130,000 | 1,000 | 1,130 |
| **B.** | 900,800 | 1,000 | 901 |
| **C.** | 810,000 | 1,000 | 810 |
| **D.** | 160,000 | 500 | 320 |
| **D.1** | 508,000 | 500 | 1,016 |

*Source: Camoin 310*

## Ongoing Operations Impact Analysis

The on-site jobs for each concept, calculated in the previous section, represent the "direct" jobs and were used as the input for the economic impact model. It is assumed that these jobs are "net new" to Albany County. In other words, without the Project, these jobs would not be created elsewhere in the County. This assumption is reasonable based on the unique nature of the port development site and lack of comparable sites in Albany County.

Several industrial sectors were selected as the modeling parameters to account for differences in the impact multipliers across different industrial sectors. This was done to ensure the results represent an average across multiple industry sectors because no specific industries or businesses have been identified for the property yet. The following industry sectors were used to provide a cross-section of industries that best align with the types of operations most likely to occupy the property in the future. Note that Concepts D and D.1 were modeled only with the industry "All Other Miscellaneous Manufacturing" due to their expected manufacturing uses.

| Industry Modeling Parameters | | |
|---|---|---|
| NAICS | Industry Description | Applied to Concepts |
| 339999 | All Other Miscellaneous Manufacturing | A, B, C, D, D.2 |
| 423990 | Other Miscellaneous Durable Goods Merchant Wholesalers | A, B, C |
| 488310 | Port and Harbor Operations | A, B, C |
| 488320 | Marine Cargo Handling | A, B, C |
| 493110 | General Warehousing and Storage | A, B, C |

*Source: Camoin 310*

The results of the analysis are shown below for each of the concepts. Note that "induced" impacts are included in the "Indirect" impacts reported below.

| Annual Economic Impact to Albany County: Concept A | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| **Jobs** | 1,130 | 540 | **1,670** |
| **Earnings** | $ 72,502,223 | $ 29,000,889 | **$ 101,503,112** |
| **Sales** | $ 211,502,675 | $ 83,477,244 | **$ 294,979,919** |

*Source: EMSI; Camoin 310*

| Annual Economic Impact to Albany County: Concept B | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| **Jobs** | 901 | 430 | **1,331** |
| **Earnings** | $ 57,796,462 | $ 23,118,585 | **$ 80,915,047** |
| **Sales** | $ 168,603,194 | $ 66,545,400 | **$ 235,148,594** |

*Source: EMSI; Camoin 310*

| Annual Economic Impact to Albany County: Concept C | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| **Jobs** | 810 | 387 | **1,197** |
| **Earnings** | $ 51,970,620 | $ 20,788,248 | **$ 72,758,868** |
| **Sales** | $ 151,608,112 | $ 59,837,671 | **$ 211,445,783** |

*Source: EMSI; Camoin 310*

| Annual Economic Impact to Albany County: Concept D | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| **Jobs** | 320 | 202 | **522** |
| **Earnings** | $ 36,435,634 | $ 11,659,403 | **$ 48,095,037** |
| **Sales** | $ 110,759,560 | $ 33,959,135 | **$ 144,718,694** |

*Source: EMSI; Camoin 310*

| Annual Economic Impact to Albany County: Concept D.1 | | | |
|---|---|---|---|
| | Direct | Indirect | Total |
| **Jobs** | 1,016 | 643 | **1,659** |
| **Earnings** | $ 115,683,139 | $ 37,018,604 | **$ 152,701,743** |
| **Sales** | $ 351,661,602 | $ 107,820,252 | **$ 459,481,855** |

*Source: EMSI; Camoin 310*

## Development Concept Comparison

The following tables provides a comparison of the total annual economic impact of each concept resulting from ongoing operations on the property. Concept A has the greatest countywide economic impact with approximately 1,670 jobs generated along with $102 million in annual earnings and a total annual economic output of $295 million.

| Annual Economic Impact to Albany County: Concept Comparison | | | | | |
|---|---|---|---|---|---|
| | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| **Jobs** | 1,670 | 1,330 | 1,200 | 236 | 751 |
| **Earnings** | $ 102,000,000 | $ 80,900,000 | $ 72,800,000 | $ 14,400,000 | $ 45,600,000 |
| **Sales** | $ 295,000,000 | $ 235,000,000 | $ 211,000,000 | $ 41,800,000 | $ 133,000,000 |

*Source: EMSI; Camoin 310*

*Note: Figures rounded*

## Summary of Job Impact by Occupation Type

The following tables detail the number and type of jobs that are expected to be created for each development concept, for both the construction phase and ongoing operations.

| Operations Job Impact: Concept A | |
|---|---|
| Job Type | # of Jobs |
| Transportation and Material Moving Occupations | 521 |
| Office and Administrative Support Occupations | 251 |
| Production Occupations | 210 |
| Sales and Related Occupations | 154 |
| Management Occupations | 92 |
| Installation, Maintenance, and Repair Occupations | 76 |
| Business and Financial Operations Occupations | 66 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 55 |
| Food Preparation and Serving Related Occupations | 42 |
| Building and Grounds Cleaning and Maintenance Occupations | 40 |
| Architecture and Engineering Occupations | 27 |
| Computer and Mathematical Occupations | 26 |
| Healthcare Practitioners and Technical Occupations | 24 |
| Construction and Extraction Occupations | 22 |
| Personal Care and Service Occupations | 20 |
| Other | 43 |

*Source: EMSI; Camoin 310*

| Construction Job Impact: Concept A | |
|---|---|
| Job Type | # of Jobs |
| Construction and Extraction Occupations | 653 |
| Management Occupations | 102 |
| Office and Administrative Support Occupations | 84 |
| Transportation and Material Moving Occupations | 48 |
| Sales and Related Occupations | 42 |
| Business and Financial Operations Occupations | 42 |
| Installation, Maintenance, and Repair Occupations | 30 |
| Architecture and Engineering Occupations | 27 |
| Production Occupations | 22 |
| Building and Grounds Cleaning and Maintenance Occupations | 15 |
| Food Preparation and Serving Related Occupations | 13 |
| Healthcare Practitioners and Technical Occupations | 13 |
| Computer and Mathematical Occupations | 9 |
| Personal Care and Service Occupations | 7 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 5 |
| Other | 15 |

*Source: EMSI; Camoin 310*

| Operations Job Impact: Concept B | |
|---|---|
| Job Type | # of Jobs |
| Transportation and Material Moving Occupations | 365 |
| Office and Administrative Support Occupations | 176 |
| Production Occupations | 147 |
| Sales and Related Occupations | 108 |
| Management Occupations | 64 |
| Installation, Maintenance, and Repair Occupations | 53 |
| Business and Financial Operations Occupations | 46 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 38 |
| Food Preparation and Serving Related Occupations | 29 |
| Building and Grounds Cleaning and Maintenance Occupations | 28 |
| Architecture and Engineering Occupations | 19 |
| Computer and Mathematical Occupations | 18 |
| Healthcare Practitioners and Technical Occupations | 17 |
| Construction and Extraction Occupations | 16 |
| Personal Care and Service Occupations | 14 |
| Other | 30 |

*Source: EMSI; Camoin 310*

| Construction Job Impact: Concept B | |
|---|---|
| Job Type | # of Jobs |
| Construction and Extraction Occupations | 457 |
| Management Occupations | 71 |
| Office and Administrative Support Occupations | 59 |
| Transportation and Material Moving Occupations | 33 |
| Sales and Related Occupations | 30 |
| Business and Financial Operations Occupations | 30 |
| Installation, Maintenance, and Repair Occupations | 21 |
| Architecture and Engineering Occupations | 19 |
| Production Occupations | 15 |
| Building and Grounds Cleaning and Maintenance Occupations | 11 |
| Food Preparation and Serving Related Occupations | 9 |
| Healthcare Practitioners and Technical Occupations | 9 |
| Computer and Mathematical Occupations | 6 |
| Personal Care and Service Occupations | 5 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 4 |
| Other | 11 |

*Source: EMSI; Camoin 310*

| Operations Job Impact: Concept C | |
|---|---|
| Job Type | # of Jobs |
| Transportation and Material Moving Occupations | 339 |
| Office and Administrative Support Occupations | 163 |
| Production Occupations | 137 |
| Sales and Related Occupations | 100 |
| Management Occupations | 60 |
| Installation, Maintenance, and Repair Occupations | 50 |
| Business and Financial Operations Occupations | 43 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 36 |
| Food Preparation and Serving Related Occupations | 27 |
| Building and Grounds Cleaning and Maintenance Occupations | 26 |
| Architecture and Engineering Occupations | 17 |
| Computer and Mathematical Occupations | 17 |
| Healthcare Practitioners and Technical Occupations | 16 |
| Construction and Extraction Occupations | 15 |
| Personal Care and Service Occupations | 13 |
| Other | 28 |

*Source: EMSI; Camoin 310*

| Construction Job Impact: Concept C | |
|---|---|
| Job Type | # of Jobs |
| Construction and Extraction Occupations | 425 |
| Management Occupations | 66 |
| Office and Administrative Support Occupations | 55 |
| Transportation and Material Moving Occupations | 31 |
| Sales and Related Occupations | 27 |
| Business and Financial Operations Occupations | 27 |
| Installation, Maintenance, and Repair Occupations | 19 |
| Architecture and Engineering Occupations | 18 |
| Production Occupations | 14 |
| Building and Grounds Cleaning and Maintenance Occupations | 10 |
| Food Preparation and Serving Related Occupations | 8 |
| Healthcare Practitioners and Technical Occupations | 8 |
| Computer and Mathematical Occupations | 6 |
| Personal Care and Service Occupations | 5 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 4 |
| Other | 10 |

*Source: EMSI; Camoin 310*

| Operations Job Impact: Concept D | |
|---|---|
| Job Type | # of Jobs |
| Production Occupations | 155 |
| Office and Administrative Support Occupations | 74 |
| Sales and Related Occupations | 44 |
| Management Occupations | 36 |
| Transportation and Material Moving Occupations | 33 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 32 |
| Business and Financial Operations Occupations | 24 |
| Installation, Maintenance, and Repair Occupations | 18 |
| Architecture and Engineering Occupations | 18 |
| Food Preparation and Serving Related Occupations | 15 |
| Computer and Mathematical Occupations | 12 |
| Building and Grounds Cleaning and Maintenance Occupations | 11 |
| Healthcare Practitioners and Technical Occupations | 10 |
| Construction and Extraction Occupations | 8 |
| Personal Care and Service Occupations | 8 |
| Healthcare Support Occupations | 4 |
| Other | 19 |

*Source: EMSI; Camoin 310*

| Construction Job Impact: Concept D | |
|---|---|
| Job Type | # of Jobs |
| Construction and Extraction Occupations | 278 |
| Management Occupations | 43 |
| Office and Administrative Support Occupations | 36 |
| Transportation and Material Moving Occupations | 20 |
| Sales and Related Occupations | 18 |
| Business and Financial Operations Occupations | 18 |
| Installation, Maintenance, and Repair Occupations | 13 |
| Architecture and Engineering Occupations | 12 |
| Production Occupations | 9 |
| Building and Grounds Cleaning and Maintenance Occupations | 6 |
| Food Preparation and Serving Related Occupations | 5 |
| Healthcare Practitioners and Technical Occupations | 5 |
| Computer and Mathematical Occupations | 4 |
| Personal Care and Service Occupations | 3 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 2 |
| Other | 6 |

*Source: EMSI; Camoin 310*

| Operations Job Impact: Concept D.1 | |
|---|---|
| Job Type | # of Jobs |
| Production Occupations | 492 |
| Office and Administrative Support Occupations | 236 |
| Sales and Related Occupations | 140 |
| Management Occupations | 115 |
| Transportation and Material Moving Occupations | 105 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 103 |
| Business and Financial Operations Occupations | 77 |
| Installation, Maintenance, and Repair Occupations | 57 |
| Architecture and Engineering Occupations | 57 |
| Food Preparation and Serving Related Occupations | 48 |
| Computer and Mathematical Occupations | 38 |
| Building and Grounds Cleaning and Maintenance Occupations | 35 |
| Healthcare Practitioners and Technical Occupations | 33 |
| Construction and Extraction Occupations | 26 |
| Personal Care and Service Occupations | 25 |
| Healthcare Support Occupations | 14 |
| Other | 60 |

*Source: EMSI; Camoin 310*

| Construction Job Impact: Concept D.1 | |
|---|---|
| Job Type | # of Jobs |
| Construction and Extraction Occupations | 359 |
| Management Occupations | 56 |
| Office and Administrative Support Occupations | 46 |
| Transportation and Material Moving Occupations | 26 |
| Sales and Related Occupations | 23 |
| Business and Financial Operations Occupations | 23 |
| Installation, Maintenance, and Repair Occupations | 16 |
| Architecture and Engineering Occupations | 15 |
| Production Occupations | 12 |
| Building and Grounds Cleaning and Maintenance Occupations | 8 |
| Food Preparation and Serving Related Occupations | 7 |
| Healthcare Practitioners and Technical Occupations | 7 |
| Computer and Mathematical Occupations | 5 |
| Personal Care and Service Occupations | 4 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 3 |
| Other | 8 |

*Source: EMSI; Camoin 310*

# 3. FISCAL IMPACTS

## Fiscal Impact Scenarios

Two fiscal impact scenarios are analyzed in this section:

1) **Land Remains Tax Exempt; New Buildings Fully Taxable:** APDC currently owns the property and as such, the land is currently wholly exempt from property taxes. APDC has expressed its intent to maintain ownership of the land, which will keep it exempt. However, APDC intends to make the land available for private development and any future buildings constructed on the land will be subject to property taxes. The analysis of this scenario also explores potential fiscal implications if a future tenant were to receive a property tax abatement incentive from the Town of Bethlehem Industrial Development Agency (IDA) through a Payment in Lieu of Taxes (PILOT) agreement.

2) **Entire Property is Tax Exempt:** At the request of the Town of Bethlehem, a second fiscal scenario was analyzed to understand the fiscal impacts of the project if the entire property, both land and buildings are tax exempt in the future.

## Fiscal Impact Scenario 1:

### PROPERTY TAX REVENUE ANALYSIS

The Project will add new taxable valuation to the Town of Bethlehem and Albany County, resulting in new property tax revenues for local municipalities and taxing jurisdictions. APDC currently owns the property after purchasing the two parcels in November 2018 from a private owner. As a result, the land is currently wholly exempt from property taxes. While APDC intends to retain ownership of the land, the area of future building will be leased to a private entity. Therefore, a private entity will own any buildings constructed on the property and pay property taxes on the assessed value of any new building(s).

#### On-Site Property Tax Revenue Generation

The property tax revenue analysis considers the potential new building assessed value for each of the five development concepts. The future assessed value of new industrial buildings is estimated using a cost approach that is based on the cost to build or replace a structure (including hard and soft costs) and is typically used by assessors to value industrial properties.

The following table shows the estimated Full Market Value (FMV) of future buildings based on their estimated construction cost (see section 2. Economic Impacts). The corresponding Assessed Value (AV) of new building(s) for each concept is also shown based on the local Town of Bethlehem equalization rate[2] of 95%.

[2] An equalization rate is New York State's measure of a municipality's level of assessment. An equalization rate of 100% means that the Town is assessing property at 100% of market value. The rate is used to account for account for the differences in how individual municipalities assess property.

| Estimated Increase in Valuation (Building Only) | | |
|---|---|---|
| Concept ID | Est. Increase in Full Market Value* | Est. Increase in Assessed Value** |
| **A.** | $ 78,000,000 | $ 74,100,000 |
| **B.** | $ 66,000,000 | $ 62,700,000 |
| **C.** | $ 65,000,000 | $ 61,750,000 |
| **D.** | $ 15,000,000 | $ 14,250,000 |
| **D.1** | $ 40,000,000 | $ 38,000,000 |

** Based on estimated construction costs*

*** Based on equalization rate of 95%*

*Source: McFarland Johnson; Camoin 310*

The following table indicates the various property taxes that future taxable buildings will be subject to and the associated annual property tax revenue estimates for each development concept. The analysis assumes that the Town of Bethlehem Water District will be expanded to encompass the property. It is expected that Albany County will provide sewer service to the development. The results of the analysis show that Concept A will generate an estimated $2.22 million in annual property tax revenues with $1.57 million of that revenue going to the Bethlehem Central School District. The other four concepts are estimated to generate between approximately $427,000 and $1.88 million in total new property tax revenues.

| Estimated Net Increase in Annual Property Tax Revenue (On-Site) | | | | | | |
|---|---|---|---|---|---|---|
| Property Tax Type | Tax Rate* | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Albany County | *3.797886* | $ 281,423 | $ 238,127 | $ 234,519 | $ 54,120 | $ 144,320 |
| Town of Bethlehem (General Fund) | *0.87704* | $ 64,989 | $ 54,990 | $ 54,157 | $ 12,498 | $ 33,328 |
| Highway Tax | *1.710737* | $ 126,766 | $ 107,263 | $ 105,638 | $ 24,378 | $ 65,008 |
| Ambulance/EMS | *0.317667* | $ 23,539 | $ 19,918 | $ 19,616 | $ 4,527 | $ 12,071 |
| Selkirk Fire Dept. | *1.490534* | $ 110,449 | $ 93,456 | $ 92,040 | $ 21,240 | $ 56,640 |
| Town Water District | *0.526999* | $ 39,051 | $ 33,043 | $ 32,542 | $ 7,510 | $ 20,026 |
| Bethelehem Central School District | *21.25* | $ 1,574,625 | $ 1,332,375 | $ 1,312,188 | $ 302,813 | $ 807,500 |
| **Total** | ***29.970863*** | **$ 2,220,841** | **$ 1,879,173** | **$ 1,850,701** | **$ 427,085** | **$ 1,138,893** |

*per 1,000 taxable assessed valuation (2019 rates)

*Source: Town of Bethlehem; Camoin 310*

*Assumes Sewer Service Provided by Albany County and not Town of Bethlehem*

### Off-Site Property Tax Revenue Generation

In addition to the property tax revenue generated directly from new industrial development, new property tax revenue will also be generated throughout Albany County as a result of the economic impact of new business activity on the property. As economic activity increases, so do property values, and therefore, property tax revenue.

To estimate the portion of property tax revenue in the county that can be attributed to future development of the site, the ratio of total sales associated with each development to the Gross Regional Product of Albany County is used (representing the total economic activity in the county). The new sales generated by development of the Project will account for approximately 0.13% to 0.89% of the county's Gross Regional

Product. This is, in effect, the increase in the property tax base that will result from the economic activity generated by future development. This ratio is applied to total property tax levies by the county's various taxing jurisdictions (counties, cities, villages, towns, and school districts).

The on-site property tax revenue, calculated previously, is subtracted from this total to estimate the off-site countywide property tax revenue benefits as a result of the Project. The off-site property tax revenue benefits are estimated to range from $2.8 million to $9.0 million to Albany County, depending on the development concept. The following table shows how these figures were calculated.

| Potential Net Increase in Annual Property Tax Revenue (Off-Site) | | | | | |
|---|---|---|---|---|---|
| Property Tax Type | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| A. Total Sales Attributable to Project[1] | $ 294,979,919 | $ 235,148,594 | $ 211,445,783 | $ 144,718,694 | $ 459,481,855 |
| B. Gross Regional Product (Albany County)[2] | $ 33,203,710,232 | $ 33,203,710,232 | $ 33,203,710,232 | $ 33,203,710,232 | $ 33,203,710,232 |
| C. Percent Increase in GRP from Project (A*B) | 0.89% | 0.71% | 0.64% | 0.44% | 1.38% |
| D. Total Annual County Property Tax Levy[3] | $ 735,713,142 | $ 735,713,142 | $ 735,713,142 | $ 735,713,142 | $ 735,713,142 |
| E. Property Tax Revenue Increase Attributable to Project (C*D) | $ 6,536,035 | $ 5,210,319 | $ 4,685,122 | $ 3,206,613 | $ 10,180,996 |
| F. On-Site Property Tax Revenue[4] | $ 2,220,841 | $ 1,879,173 | $ 1,850,701 | $ 427,085 | $ 1,138,893 |
| **G. Off-Site (Countywide) Property Tax Revenue Benefit (E-F)** | **$ 4,315,194** | **$ 3,331,146** | **$ 2,834,421** | **$ 2,779,528** | **$ 9,042,103** |

1. Based on calculated total economic impact to Albany County
2. 2018 GRP. Source: EMSI
3. Includes all taxing jurisdictions w ithin Albany County. Source: NYS Comptroller
4. Represents property tax payments from new on-site tenant(s)

To estimate the portion of the off-site countywide property tax revenue that is received by Town of Bethlehem taxing jurisdiction, it is necessary to consider the proportion of economic activity generated by the Project that occurs within the Town of Bethlehem.

According to the EMSI economic impact model discussed previously, approximately 90% of the economic impacts of new development will occur within the Town of Bethlehem. Therefore, 90% of the countywide (off-site) fiscal impacts are assumed to occur in the Town of Bethlehem because they are the impacts generated by new economic activity and not from the property itself.

The estimated fiscal benefit to the Town of Bethlehem Taxing Jurisdictions is approximately $2.5 million to $8.1 million annually (including county property tax revenue generated off-site, but within the Town).

| Potential Increase in Annual Property Tax Revenue (Off-Site) | | | | | |
|---|---|---|---|---|---|
| Property Tax Type | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Off-Site (Countywide) Property Tax Revenue Benefit | $ 4,315,194 | $ 3,331,146 | $ 2,834,421 | $ 2,779,528 | $ 9,042,103 |
| Estimated Benefit to Town of Bethlehem Taxing Jurisdictions | $ 3,883,674 | $ 2,998,031 | $ 2,550,979 | $ 2,501,575 | $ 8,137,893 |

*Source: Town of Bethlehem; Camoin 310*

Based on existing property tax rates, as previously discussed, the following table provides a breakdown of the estimated distribution of (off-site) property tax revenue by taxing jurisdiction in the Town of Bethlehem.

| Estimated Net Increase in Annual Property Tax Revenue (Off-Site) | | | | | |
|---|---|---|---|---|---|
| Property Tax Type | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Albany County (Town of Bethlehem Portion) | $ 492,136 | $ 379,908 | $ 323,258 | $ 316,998 | $ 1,031,228 |
| Town of Bethlehem (General Fund) | $ 113,648 | $ 87,732 | $ 74,650 | $ 73,204 | $ 238,140 |
| Highway Tax | $ 221,680 | $ 171,128 | $ 145,610 | $ 142,790 | $ 464,511 |
| Ambulance/EMS | $ 41,164 | $ 31,777 | $ 27,038 | $ 26,515 | $ 86,255 |
| Selkirk Fire Dept. | $ 193,146 | $ 149,100 | $ 126,867 | $ 124,410 | $ 404,720 |
| Town Water District | $ 68,289 | $ 52,717 | $ 44,856 | $ 43,987 | $ 143,094 |
| Bethelehem Central School District | $ 2,753,610 | $ 2,125,670 | $ 1,808,700 | $ 1,773,672 | $ 5,769,945 |
| **Total** | **$ 3,883,674** | **$ 2,998,031** | **$ 2,550,979** | **$ 2,501,575** | **$ 8,137,893** |

*Source: Camoin 310*

The following chart shows the combined on- and off-site estimated fiscal revenues to Town of Bethlehem taxing jurisdictions (including property tax revenue generated for Albany County from within the Town).

| Estimated Increase in Annual Town of Bethlehem Property Tax Revenue (Total - On- and Off-Site) | | | | | |
|---|---|---|---|---|---|
| Property Tax Type | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Albany County (Town of Bethlehem Portion) | $ 773,560 | $ 618,036 | $ 557,778 | $ 371,118 | $ 1,175,548 |
| Town of Bethlehem (General Fund) | $ 178,637 | $ 142,722 | $ 128,807 | $ 85,702 | $ 271,467 |
| Highway Tax | $ 348,446 | $ 278,391 | $ 251,248 | $ 167,168 | $ 529,519 |
| Ambulance/EMS | $ 64,703 | $ 51,694 | $ 46,654 | $ 31,041 | $ 98,326 |
| Selkirk Fire Dept. | $ 303,594 | $ 242,557 | $ 218,908 | $ 145,650 | $ 461,360 |
| Town Water District | $ 107,340 | $ 85,759 | $ 77,398 | $ 51,497 | $ 163,120 |
| Bethelehem Central School District | $ 4,328,235 | $ 3,458,045 | $ 3,120,888 | $ 2,076,484 | $ 6,577,445 |
| **Total** | **$ 6,104,515** | **$ 4,877,204** | **$ 4,401,680** | **$ 2,928,660** | **$ 9,276,786** |

*Source: Camoin 310*

## SALES TAX REVENUE ANALYSIS

### Sales Tax Revenue – One-Time Construction Phase

The one-time construction phase earnings generated by the economic impact of constructing new industrial facilities (described in section 2. Economic Impacts) would lead to additional sales tax revenue for Albany County. For the purposes of this analysis, it is assumed that 50% of construction phase earnings (earnings earned as a result of the construction phase) would be spent within Albany County and that 25% of those purchases would be taxable. As a result of the construction phase employment, the County would receive between $87,000 (Concept D) and $204,000 (Concept A) in new sales tax revenues from the one-time economic impacts of project construction. The estimated one-time county sales tax revenue from construction for each concept is shown below.

| One-Time County Sales Tax Revenue from Construction | | | | | |
|---|---|---|---|---|---|
| | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Total New Earnings | $ 40,848,982 | $ 28,594,287 | $ 26,551,838 | $ 17,360,817 | $ 22,466,940 |
| Earnings Spent in County (50%) | $ 20,424,491 | $ 14,297,144 | $ 13,275,919 | $ 8,680,409 | $ 11,233,470 |
| Spending Subject to Sales Tax (25%) | $ 5,106,123 | $ 3,574,286 | $ 3,318,980 | $ 2,170,102 | $ 2,808,368 |
| **County Sales Tax Revenue (4%)** | **$ 204,245** | **$ 142,971** | **$ 132,759** | **$ 86,804** | **$ 112,335** |

*Source: Camoin 310*

### Sales Tax Revenue – Ongoing Industrial Operations

The additional earnings generated in Albany County as a result of the economic impact of ongoing operations of future industrial businesses on the property would lead to additional sales tax revenue for the county. It is assumed that 70% of the earnings would be spent within Albany County and that 25% of those purchases would be taxable. Under these assumptions, Albany County would receive between $336,665 (Concept D) and $710,522 (Concept A) in sales tax proceeds. As previously noted, the County distributes a portion of this revenue to its municipalities.

| Albany County Annual Sales Tax Revenue | | | | | |
|---|---|---|---|---|---|
| | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| New Annual Earnings | $ 101,503,112 | $ 80,915,047 | $ 72,758,868 | $ 48,095,037 | $ 152,701,743 |
| Earnings Spent in County (70%) | $ 71,052,178 | $ 56,640,533 | $ 50,931,208 | $ 33,666,526 | $ 106,891,220 |
| Spending Subject to Sales Tax (25%) | $ 17,763,045 | $ 14,160,133 | $ 12,732,802 | $ 8,416,631 | $ 26,722,805 |
| **County Sales Tax Revenue (4%)** | **$ 710,522** | **$ 566,405** | **$ 509,312** | **$ 336,665** | **$ 1,068,912** |

*Source: Camoin 310*

## MUNICIPAL SERVICES COSTS

The Project has the potential to result in increased municipal service costs. The costs examined in this analysis include emergency medical services (EMS), fire department, police, and Town Highway. These service types are those with the greatest potential for adverse impacts, although there may be other minor municipal costs incurred not considered in this analysis.

### Emergency Medical Services (EMS)

The Delmar-Bethlehem EMS provided input as to the anticipated impacts of the Project to their capacity and expenses. Overall, the Project is not expected to significantly increase costs. EMS anticipates an incremental increase in call volumes and associated costs but does not foresee a need to hire additional personnel or purchase new equipment as a result of the Project.

The estimated increase in costs for EMS is based only the new staffing costs that won't be recovered by EMS billing. In other words, a large portion of the new costs to EMS will be recovered by insurance and patient billing and therefore do not represent "true" net costs to EMS or Albany County. While annual staffing costs are approximately $500,000, approximately 80% of those costs are assumed to be covered by billing (based on EMS currently receiving approximately 80% of its revenue from billing).

The increase in costs associated with an incremental increase in call volume was estimated based on the incremental change in the daytime population in the Town of Bethlehem. In other words, it is assumed that the number of calls received correlates with the number of people in the Town. The staffing expenses (not covered by billing) associated with daytime calls were estimated based on the percentage of calls that are received during daytime hours. It is assumed that the Project will result almost entirely in new daytime calls rather than overnight calls. The daytime population of the Town is expected to grow by approximately 3.9% as a result of on-site employment. Therefore, it is assumed that the EMS calls during the daytime will increase roughly proportional to this increase. When the 3.9% factor is applied to the costs attributable to daytime calls, it provides an estimate of approximately $2,560 in new annual costs to the Delmar-Bethlehem EMS. The analysis is presented in the table below.

| Annual Estimated Fiscal Impact to EMS (Concept A) | | |
|---|---|---|
| A. Net Staffing Costs* | $ | 100,000 |
| B. Percent of Calls During Day** | | 65% |
| C. Costs Attributable to Daytime Calls (A*B) | $ | 65,100 |
| D. Current Town Daytime Population | | 28,753 |
| E. Increase in Daytime Population from Project | | 1,130 |
| F. Percent Increase (E/D) | | 3.9% |
| **Incremental Annual Increase in Costs (C*F)** | **$** | **2,558** |

**Costs are those staffing costs not covered by billing*

***6:00 AM to 6:00 PM*

*Source: Delmar-Bethlehem 2018 EMS Response Report; ESRI Business Analyst; Camoin 310*

## Police Services

The Town of Bethlehem Police Department was contacted to determine the potential impacts of the Project on departmental capacity and expenses. Representatives of the police department reported that:

- Overall, the Department does not anticipate that development of the property for future industrial use will directly result in the need to hire new personnel or purchase new equipment.
- However, the Project will result in more resources being allocated to address the increased need for police services due to the Project, which will restrain the Department's existing resources. An increase in expenses associated with responding to an increased number of calls is likely, including overtime expenditures.
- The Project, along with the continued population and commercial growth in the Town of Bethlehem, will draw the Department closer to the point where it will be required to expand its capacity through new personnel and equipment.

Based on the input received from the Police Department, the increased costs associated with the increase in call volumes was estimated. For the purposes of this analysis, it is assumed that overtime costs will increase proportional to the overall growth of the Town of Bethlehem due to the project. Based on the expected increase in assessed value of the Project (Concept A), the Town's total assessed value will increase by approximately 4.5%. When this factor is applied to the department's current police personnel overtime expenditures of approximately $348,000, it results in an estimated increase of $15,743 in new annual expenses to the department due to the Project.

| Annual Estimated Fiscal Impact to Police Department | | |
|---|---|---|
| Total Town Assessed Value | $ | 4,193,752,400 |
| Est. Project Assessed Value | $ | 190,000,000 |
| Percent Increase | | 4.5% |
| Current Police Overtime Costs | $ | 347,493 |
| **Incremental Annual Increase** | **$** | **15,743** |

*Source: Town of Bethlehem 2019 Budget; Camoin 310*

### Fire Department

The Selkirk Fire Department, which will serve the Project, was contacted to understand the potential impacts of the Project on the Fire Department. The anticipated impact of the Project on fire services is highly dependent on the scale and type of industrial facility located on the site. The Fire Department provided input based upon a build-out scenario of a 1.13 million square foot industrial warehouse facility (Concept A). In the event that future industrial uses differ from this scenario, the Department should be consulted for an updated understanding of impacts.

Based on Concept A, the Department does not expect to incur significant new costs. The Department, currently all-volunteer, will not need to hire paid firefighters as a result of the Project. The Department also has heavy rescue equipment and does not foresee the need to purchase additional equipment. There may be other nominal new costs for the Department associated with an incremental increase in call volumes and providing additional training for water/boat-related call responses. It should be noted that the Department has an existing aerial truck but depending on the exact height and footprint of future development a new larger truck may be necessary. As there are a number of large footprint buildings and industrial facilities, it is assumed for this analysis that the existing aerial truck will be able to serve the Project.

### Highway Department[3]

Potential impacts on the cost of services provided by the Bethlehem Highway Department were considered in the analysis. The Project will not feature any new public roads that will require construction, maintenance, or plowing. Therefore, no significant fiscal impacts are expected for the town's highway department.

There may be minor increased "wear and tear" on the local road network that may affect the maintenance schedule of local roads; however, the area already has a number of industrial facilities that generate truck traffic. The Draft Traffic Impact Study (TIS) that was completed was reviewed to understand the potential costs associated with increased maintenance costs. The TIS found that the Project will generate a maximum of 465 trips at peak time in the morning and 529 trips during the PM peak hour. The proposed development was estimated to increase the number of trucks on the surrounding roadway network from 8% to 27% during the peak truck timeframe (Midday). The Study states that "the increase in truck traffic is only a fraction of the existing truck traffic within the study area." As such, the new truck traffic is not expected to significantly impact the maintenance schedule of existing roadways.

[3] The Highway Department was contacted several times to provide input for this analysis but no feedback was received.

## SUMMARY OF IDA PILOT SCENARIOS

The Town of Bethlehem offers real property tax abatements (PILOT) benefits to certain projects that result in an increase in the property tax assessment by the taxing jurisdiction (County, Town and School District). The PILOT (Payment In Lieu of Taxes) consists of an agreed- upon percentage of the improvements that would be otherwise due on the property if the project was completed without IDA tax abatements. The IDA offers a Standard and an Enhanced Abatement and each are awarded on a case-by-case basis.

The Standard Abatement commences at 50% of the increase in assessed valuation resulting from a project and then declines by 5% per year for a ten-year period. This abatement is designed for projects that are eligible for IDA assistance and meet a standard level of economic impact including, job creation, business development and tax generation. This program provides abatement for the Town, County and School District taxes throughout the Town.

The Enhanced Abatement is designed to enhance the regional competitive position of the Town in attracting high quality business development that meets very specific economic benefit criteria.

To be eligible for the enhanced abatement, an applicant must demonstrate the project's ability to substantially meet the following criteria:

- Extraordinary new job creation and capital investment
- Net new business investment in the Capital Region
- Reuse or redevelopment of abandoned or underutilized real estate
- Consistency with the Town's comprehensive plan recommendations
- Market penetration: potential for catalytic effect for subsequent projects
- Consistency with regional target industries
- Business development that promotes diversification

While no PILOT agreement is in place, the fiscal implications of both the Standard and Enhanced PILOTs were analyzed for each of the five concepts for hypothetical purposes. The following chart summarizes the property tax revenue differences under the various abatement scenarios for each concept.

| Summary: 12-Year Property Tax Revenue Comparison of IDA PILOT (Abatement) Scenarios* | | | |
|---|---|---|---|
| Concept | No Abatement | Standard Abatement | Enhanced Abatement |
| Concept A | $ 28,962,456 | $ 22,571,894 | $ 13,768,774 |
| Concept B | $ 24,506,694 | $ 19,099,295 | $ 11,650,501 |
| Concept C | $ 24,135,380 | $ 18,809,912 | $ 11,473,978 |
| Concept D | $ 5,569,703 | $ 4,340,749 | $ 2,647,841 |
| Concept D.1 | $ 14,852,542 | $ 11,575,330 | $ 7,060,910 |

** Includes Sum of County, Town, School District Revenues*

*Source: Camoin 310*

## PILOT ANALYSIS TABLES

### Concept A

| Fiscal Analysis - No IDA Abatement - Concept A | | | |
|---|---|---|---|
| Year | Town Revenue | County Revenue | School District Revenue |
| 1 | $364,793 | $281,423 | $1,574,625 |
| 2 | $370,264 | $285,645 | $1,598,244 |
| 3 | $375,818 | $289,929 | $1,622,218 |
| 4 | $381,456 | $294,278 | $1,646,551 |
| 5 | $387,178 | $298,692 | $1,671,250 |
| 6 | $392,985 | $303,173 | $1,696,318 |
| 7 | $398,880 | $307,720 | $1,721,763 |
| 8 | $404,863 | $312,336 | $1,747,590 |
| 9 | $410,936 | $317,021 | $1,773,803 |
| 10 | $417,100 | $321,777 | $1,800,410 |
| 11 | $423,357 | $326,603 | $1,827,417 |
| 12 | $429,707 | $331,502 | $1,854,828 |
| Total | $4,757,337 | $3,670,101 | $20,535,018 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Standard IDA Abatement - Concept A | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 50% | $182,396 | $140,712 | $787,313 |
| 2 | 45% | $203,645 | $157,105 | $879,034 |
| 3 | 40% | $225,491 | $173,958 | $973,331 |
| 4 | 35% | $247,946 | $191,281 | $1,070,258 |
| 5 | 30% | $271,024 | $209,085 | $1,169,875 |
| 6 | 25% | $294,739 | $227,380 | $1,272,239 |
| 7 | 20% | $319,104 | $246,176 | $1,377,410 |
| 8 | 15% | $344,134 | $265,486 | $1,485,451 |
| 9 | 10% | $369,843 | $285,319 | $1,596,423 |
| 10 | 5% | $396,245 | $305,688 | $1,710,390 |
| 11 | 0% | $423,357 | $326,603 | $1,827,417 |
| 12 | 0% | $429,707 | $331,502 | $1,854,828 |
| Total | | $3,707,631 | $2,860,294 | $16,003,969 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Enhanced IDA Abatement - Concept A | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 100% | $0 | $0 | $0 |
| 2 | 100% | $0 | $0 | $0 |
| 3 | 90% | $37,582 | $28,993 | $162,222 |
| 4 | 80% | $76,291 | $58,856 | $329,310 |
| 5 | 70% | $116,153 | $89,608 | $501,375 |
| 6 | 60% | $157,194 | $121,269 | $678,527 |
| 7 | 50% | $199,440 | $153,860 | $860,882 |
| 8 | 40% | $242,918 | $187,402 | $1,048,554 |
| 9 | 30% | $287,655 | $221,915 | $1,241,662 |
| 10 | 20% | $333,680 | $257,421 | $1,440,328 |
| 11 | 10% | $381,021 | $293,943 | $1,644,675 |
| 12 | 0% | $429,707 | $331,502 | $1,854,828 |
| Total | | $2,261,642 | $1,744,769 | $9,762,363 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

### Concept B

| Fiscal Analysis - No IDA Abatement - Concept B | | | |
|---|---|---|---|
| Year | Town Revenue | County Revenue | School District Revenue |
| 1 | $308,671 | $238,127 | $1,332,375 |
| 2 | $313,301 | $241,699 | $1,352,361 |
| 3 | $318,000 | $245,325 | $1,372,646 |
| 4 | $322,770 | $249,005 | $1,393,236 |
| 5 | $327,612 | $252,740 | $1,414,134 |
| 6 | $332,526 | $256,531 | $1,435,346 |
| 7 | $337,514 | $260,379 | $1,456,876 |
| 8 | $342,577 | $264,285 | $1,478,730 |
| 9 | $347,715 | $268,249 | $1,500,911 |
| 10 | $352,931 | $272,273 | $1,523,424 |
| 11 | $358,225 | $276,357 | $1,546,276 |
| 12 | $363,598 | $280,502 | $1,569,470 |
| Total | $4,025,439 | $3,105,470 | $17,375,784 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Standard IDA Abatement - Concept B | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 50% | $154,335 | $119,064 | $666,188 |
| 2 | 45% | $172,315 | $132,935 | $743,798 |
| 3 | 40% | $190,800 | $147,195 | $823,588 |
| 4 | 35% | $209,801 | $161,853 | $905,603 |
| 5 | 30% | $229,328 | $176,918 | $989,894 |
| 6 | 25% | $249,394 | $192,398 | $1,076,510 |
| 7 | 20% | $270,011 | $208,303 | $1,165,501 |
| 8 | 15% | $291,190 | $224,642 | $1,256,920 |
| 9 | 10% | $312,944 | $241,424 | $1,350,820 |
| 10 | 5% | $335,284 | $258,659 | $1,447,253 |
| 11 | 0% | $358,225 | $276,357 | $1,546,276 |
| 12 | 0% | $363,598 | $280,502 | $1,569,470 |
| Total | | $3,137,227 | $2,420,249 | $13,541,820 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Enhanced IDA Abatement - Concept B | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 100% | $0 | $0 | $0 |
| 2 | 100% | $0 | $0 | $0 |
| 3 | 90% | $31,800 | $24,532 | $137,265 |
| 4 | 80% | $64,554 | $49,801 | $278,647 |
| 5 | 70% | $98,284 | $75,822 | $424,240 |
| 6 | 60% | $133,010 | $102,612 | $574,139 |
| 7 | 50% | $168,757 | $130,189 | $728,438 |
| 8 | 40% | $205,546 | $158,571 | $887,238 |
| 9 | 30% | $243,401 | $187,774 | $1,050,637 |
| 10 | 20% | $282,345 | $217,818 | $1,218,739 |
| 11 | 10% | $322,402 | $248,721 | $1,391,648 |
| 12 | 0% | $363,598 | $280,502 | $1,569,470 |
| Total | | $1,913,697 | $1,476,343 | $8,260,461 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

## Concept C

| Fiscal Analysis - No IDA Abatement - Concept C | | | |
|---|---|---|---|
| Year | Town Revenue | County Revenue | School District Revenue |
| 1 | $303,994 | $234,519 | $1,312,188 |
| 2 | $308,554 | $238,037 | $1,331,870 |
| 3 | $313,182 | $241,608 | $1,351,848 |
| 4 | $317,880 | $245,232 | $1,372,126 |
| 5 | $322,648 | $248,910 | $1,392,708 |
| 6 | $327,488 | $252,644 | $1,413,599 |
| 7 | $332,400 | $256,434 | $1,434,803 |
| 8 | $337,386 | $260,280 | $1,456,325 |
| 9 | $342,447 | $264,184 | $1,478,169 |
| 10 | $347,583 | $268,147 | $1,500,342 |
| 11 | $352,797 | $272,169 | $1,522,847 |
| 12 | $358,089 | $276,252 | $1,545,690 |
| Total | $3,964,448 | $3,058,418 | $17,112,515 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Standard IDA Abatement - Concept C | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 50% | $151,997 | $117,260 | $656,094 |
| 2 | 45% | $169,705 | $130,920 | $732,529 |
| 3 | 40% | $187,909 | $144,965 | $811,109 |
| 4 | 35% | $206,622 | $159,401 | $891,882 |
| 5 | 30% | $225,854 | $174,237 | $974,896 |
| 6 | 25% | $245,616 | $189,483 | $1,060,199 |
| 7 | 20% | $265,920 | $205,147 | $1,147,842 |
| 8 | 15% | $286,778 | $221,238 | $1,237,876 |
| 9 | 10% | $308,202 | $237,766 | $1,330,353 |
| 10 | 5% | $330,204 | $254,740 | $1,425,325 |
| 11 | 0% | $352,797 | $272,169 | $1,522,847 |
| 12 | 0% | $358,089 | $276,252 | $1,545,690 |
| Total | | $3,089,693 | $2,383,578 | $13,336,640 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Enhanced IDA Abatement - Concept C | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 100% | $0 | $0 | $0 |
| 2 | 100% | $0 | $0 | $0 |
| 3 | 90% | $31,318 | $24,161 | $135,185 |
| 4 | 80% | $63,576 | $49,046 | $274,425 |
| 5 | 70% | $96,794 | $74,673 | $417,812 |
| 6 | 60% | $130,995 | $101,058 | $565,439 |
| 7 | 50% | $166,200 | $128,217 | $717,401 |
| 8 | 40% | $202,432 | $156,168 | $873,795 |
| 9 | 30% | $239,713 | $184,929 | $1,034,719 |
| 10 | 20% | $278,067 | $214,518 | $1,200,274 |
| 11 | 10% | $317,518 | $244,952 | $1,370,562 |
| 12 | 0% | $358,089 | $276,252 | $1,545,690 |
| Total | | $1,884,702 | $1,453,974 | $8,135,303 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

## Concept D

| Fiscal Analysis - No IDA Abatement - Concept D | | | |
|---|---|---|---|
| Year | Town Revenue | County Revenue | School District Revenue |
| 1 | $70,152 | $54,120 | $302,813 |
| 2 | $71,205 | $54,932 | $307,355 |
| 3 | $72,273 | $55,756 | $311,965 |
| 4 | $73,357 | $56,592 | $316,644 |
| 5 | $74,457 | $57,441 | $321,394 |
| 6 | $75,574 | $58,302 | $326,215 |
| 7 | $76,708 | $59,177 | $331,108 |
| 8 | $77,858 | $60,065 | $336,075 |
| 9 | $79,026 | $60,966 | $341,116 |
| 10 | $80,212 | $61,880 | $346,233 |
| 11 | $81,415 | $62,808 | $351,426 |
| 12 | $82,636 | $63,750 | $356,698 |
| Total | $914,873 | $705,789 | $3,949,042 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Standard IDA Abatement - Concept D | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 50% | $35,076 | $27,060 | $151,406 |
| 2 | 45% | $39,163 | $30,212 | $169,045 |
| 3 | 40% | $43,364 | $33,453 | $187,179 |
| 4 | 35% | $47,682 | $36,785 | $205,819 |
| 5 | 30% | $52,120 | $40,209 | $224,976 |
| 6 | 25% | $56,681 | $43,727 | $244,661 |
| 7 | 20% | $61,366 | $47,342 | $264,887 |
| 8 | 15% | $66,180 | $51,055 | $285,664 |
| 9 | 10% | $71,124 | $54,869 | $307,004 |
| 10 | 5% | $76,201 | $58,786 | $328,921 |
| 11 | 0% | $81,415 | $62,808 | $351,426 |
| 12 | 0% | $82,636 | $63,750 | $356,698 |
| Total | | $713,006 | $550,057 | $3,077,686 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Enhanced IDA Abatement - Concept D | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 100% | $0 | $0 | $0 |
| 2 | 100% | $0 | $0 | $0 |
| 3 | 90% | $7,227 | $5,576 | $31,197 |
| 4 | 80% | $14,671 | $11,318 | $63,329 |
| 5 | 70% | $22,337 | $17,232 | $96,418 |
| 6 | 60% | $30,230 | $23,321 | $130,486 |
| 7 | 50% | $38,354 | $29,589 | $165,554 |
| 8 | 40% | $46,715 | $36,039 | $201,645 |
| 9 | 30% | $55,318 | $42,676 | $238,781 |
| 10 | 20% | $64,169 | $49,504 | $276,986 |
| 11 | 10% | $73,273 | $56,527 | $316,284 |
| 12 | 0% | $82,636 | $63,750 | $356,698 |
| Total | | $434,931 | $335,533 | $1,877,378 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

### Concept D.1

| Fiscal Analysis - No IDA Abatement - Concept D.1 | | | |
|---|---|---|---|
| Year | Town Revenue | County Revenue | School District Revenue |
| 1 | $187,073 | $144,320 | $807,500 |
| 2 | $189,879 | $146,484 | $819,613 |
| 3 | $192,727 | $148,682 | $831,907 |
| 4 | $195,618 | $150,912 | $844,385 |
| 5 | $198,553 | $153,176 | $857,051 |
| 6 | $201,531 | $155,473 | $869,907 |
| 7 | $204,554 | $157,805 | $882,955 |
| 8 | $207,622 | $160,172 | $896,200 |
| 9 | $210,736 | $162,575 | $909,643 |
| 10 | $213,898 | $165,014 | $923,287 |
| 11 | $217,106 | $167,489 | $937,137 |
| 12 | $220,363 | $170,001 | $951,194 |
| Total | $2,439,660 | $1,882,103 | $10,530,778 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Standard IDA Abatement - Concept D.1 | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 50% | $93,537 | $72,160 | $403,750 |
| 2 | 45% | $104,434 | $80,566 | $450,787 |
| 3 | 40% | $115,636 | $89,209 | $499,144 |
| 4 | 35% | $127,152 | $98,093 | $548,850 |
| 5 | 30% | $138,987 | $107,223 | $599,936 |
| 6 | 25% | $151,148 | $116,605 | $652,430 |
| 7 | 20% | $163,643 | $126,244 | $706,364 |
| 8 | 15% | $176,479 | $136,147 | $761,770 |
| 9 | 10% | $189,663 | $146,318 | $818,678 |
| 10 | 5% | $203,203 | $156,763 | $877,123 |
| 11 | 0% | $217,106 | $167,489 | $937,137 |
| 12 | 0% | $220,363 | $170,001 | $951,194 |
| Total | | $1,901,349 | $1,466,817 | $8,207,163 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

| Fiscal Analysis - Enhanced IDA Abatement - Concept D.1 | | | | |
|---|---|---|---|---|
| Year | Abatement | Town Revenue | County Revenue | School District Revenue |
| 1 | 100% | $0 | $0 | $0 |
| 2 | 100% | $0 | $0 | $0 |
| 3 | 90% | $19,273 | $14,868 | $83,191 |
| 4 | 80% | $39,124 | $30,182 | $168,877 |
| 5 | 70% | $59,566 | $45,953 | $257,115 |
| 6 | 60% | $80,612 | $62,189 | $347,963 |
| 7 | 50% | $102,277 | $78,903 | $441,478 |
| 8 | 40% | $124,573 | $96,103 | $537,720 |
| 9 | 30% | $147,516 | $113,803 | $636,750 |
| 10 | 20% | $171,118 | $132,011 | $738,630 |
| 11 | 10% | $195,395 | $150,740 | $843,423 |
| 12 | 0% | $220,363 | $170,001 | $951,194 |
| Total | | $1,159,816 | $894,753 | $5,006,340 |

*Source: Camoin 310; Town of Bethlehem IDA;*

*Assumes 1.5% annual increase in property tax rates*

## Fiscal Scenario #2 (Exempt from Property Taxes)

As previously discussed, it is anticipated that the Port will retain ownership of the land which will remain tax exempt, but any new building construction will be privately owned and subject to local property taxes. This section examines an alternative fiscal scenario in the case of the entire property being tax-exempt. In this scenario, the property itself would not generate any property tax revenue; however, new fiscal revenues would still be generated as a result of the "off-site" economic impact of the Project.

As previously discussed, the off-site *countywide* property tax revenue is estimated to range from $2.8 million to $9.0 million annually, depending on the concept. This is property tax that will be generated by new economic activity occurring in the County and not generated from the site itself. To estimate the portion of the countywide property tax revenue that is received by Town of Bethlehem taxing jurisdiction, it is necessary to consider the proportion of economic activity generated by the Project that occurs within the Town of Bethlehem.

According to the EMSI economic impact model discussed previously, approximately 90% of the economic impacts of new development will occur within the Town of Bethlehem. Therefore, 90% of the countywide (off-site) fiscal impacts are assumed to occur in the Town of Bethlehem because they are the impacts generated by new economic activity and not from the property itself.

The estimated fiscal benefit to the Town of Bethlehem Taxing Jurisdictions is approximately $2.5 million to $8.1 million annually (including county property tax revenue generated off-site, but within the Town). This revenue would occur even if the entire project remains tax-exempt.

| Potential Increase in Annual Property Tax Revenue (Off-Site) | | | | | |
|---|---|---|---|---|---|
| Property Tax Type | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Off-Site (Countywide) Property Tax Revenue Benefit | $ 4,315,194 | $ 3,331,146 | $ 2,834,421 | $ 2,779,528 | $ 9,042,103 |
| Estimated Benefit to Town of Bethlehem Taxing Jurisdictions | $ 3,883,674 | $ 2,998,031 | $ 2,550,979 | $ 2,501,575 | $ 8,137,893 |

*Source: Town of Bethlehem; Camoin 310*

Based on existing property tax rates, as previously discussed, the following table provides a breakdown of the estimated distribution of (off-site) property tax revenue by taxing jurisdiction in the Town of Bethlehem.

| Estimated Net Increase in Annual Property Tax Revenue (Off-Site) | | | | | |
|---|---|---|---|---|---|
| Property Tax Type | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| Albany County (Town of Bethlehem Portion) | $ 492,136 | $ 379,908 | $ 323,258 | $ 316,998 | $ 1,031,228 |
| Town of Bethlehem (General Fund) | $ 113,648 | $ 87,732 | $ 74,650 | $ 73,204 | $ 238,140 |
| Highway Tax | $ 221,680 | $ 171,128 | $ 145,610 | $ 142,790 | $ 464,511 |
| Ambulance/EMS | $ 41,164 | $ 31,777 | $ 27,038 | $ 26,515 | $ 86,255 |
| Selkirk Fire Dept. | $ 193,146 | $ 149,100 | $ 126,867 | $ 124,410 | $ 404,720 |
| Town Water District | $ 68,289 | $ 52,717 | $ 44,856 | $ 43,987 | $ 143,094 |
| Bethelehem Central School District | $ 2,753,610 | $ 2,125,670 | $ 1,808,700 | $ 1,773,672 | $ 5,769,945 |
| **Total** | **$ 3,883,674** | **$ 2,998,031** | **$ 2,550,979** | **$ 2,501,575** | **$ 8,137,893** |

*Source: Camoin 310*

## DGEIS Section 3.17 Fiscal and Economic Impact

### SECTION 3.17.1 ENVIRONMENTAL SETTING

Sections 1, 2, and 3 of this report are presented herein to serve as Section 3.17.1

### SECTION 3.17.2 POTENTIAL IMPACTS

Sections 3 of this report is presented herein to serve as Section 3.17.2.

### SECTION 3.17.3 MITIGATION MEASURES

No mitigation measures are required pursuant to section 3.17 of the DGEIS.

# 4. SCHOOL DISTRICT IMPACTS

The subject property is located in the Bethlehem Central School District and future development of Beacon Island was analyzed to determine potential impacts to the District pursuant to DGEIS Section 3.16 School District.

## School District Revenues (DGEIS Section 3.16.1 Environmental Setting)

As previously discussed, the development of the property will result in new taxable valuation that will be subject to the Bethlehem Central School District property tax. As of the 2019-2020 School Year, the property tax rate for the school district is $21.25. Based on this rate, future industrial port development of the property will result in between approximately $303,000 and $1.6 million in direct annual property tax revenue for the School District. Over ten years, beginning with the first year of full taxation, the Project is estimated to generate between $3.1 million and $16.1 million for the School District, depending on the development concept.

| Estimated School District Tax Revenues (Direct On-Site) (10-Years) | | | | | | |
|---|---|---|---|---|---|---|
| Year | Est. Tax Rate* | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| 1 | 21.25 | $ 1,574,625 | $ 1,332,375 | $ 1,312,188 | $ 302,813 | $ 807,500 |
| 2 | 21.36 | $ 1,582,515 | $ 1,339,052 | $ 1,318,763 | $ 304,330 | $ 811,546 |
| 3 | 21.46 | $ 1,590,445 | $ 1,345,762 | $ 1,325,371 | $ 305,855 | $ 815,613 |
| 4 | 21.57 | $ 1,598,415 | $ 1,352,505 | $ 1,332,013 | $ 307,388 | $ 819,700 |
| 5 | 21.68 | $ 1,606,425 | $ 1,359,283 | $ 1,338,687 | $ 308,928 | $ 823,808 |
| 6 | 21.79 | $ 1,614,475 | $ 1,366,094 | $ 1,345,396 | $ 310,476 | $ 827,936 |
| 7 | 21.90 | $ 1,622,565 | $ 1,372,940 | $ 1,352,137 | $ 312,032 | $ 832,085 |
| 8 | 22.01 | $ 1,630,696 | $ 1,379,819 | $ 1,358,913 | $ 313,595 | $ 836,254 |
| 9 | 22.12 | $ 1,638,867 | $ 1,386,734 | $ 1,365,722 | $ 315,167 | $ 840,445 |
| 10 | 22.23 | $ 1,647,079 | $ 1,393,683 | $ 1,372,566 | $ 316,746 | $ 844,656 |
| **10-Year Total** | | **$ 16,106,108** | **$ 13,628,245** | **$ 13,421,756** | **$ 3,097,328** | **$ 8,259,542** |
| **10-Year Average** | | **$ 1,610,611** | **$ 1,362,824** | **$ 1,342,176** | **$ 309,733** | **$ 825,954** |

**Year 1 Tax Rate based on 2019-2020 tax rate. Assumes an average tax rate increase of 0.5% based on most recent 5-year annual average.*

*Source: Camoin 310*

The School District will also receive property tax revenue from new off-site development that occurs in the School District as a result of the Project. The following table provides an estimate of this "Indirect Off-Site" property tax revenue for the District.

| Estimated School District Tax Revenues (Indirect Off-Site) (10-Years) | | | | | | |
|---|---|---|---|---|---|---|
| Year | Est. Tax Rate* | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| 1 | 21.25 | $ 2,753,610 | $ 2,125,670 | $ 1,808,700 | $ 1,773,672 | $ 5,769,945 |
| 2 | 21.36 | $ 2,767,378 | $ 2,136,298 | $ 1,817,744 | $ 1,782,540 | $ 5,798,794 |
| 3 | 21.46 | $ 2,781,215 | $ 2,146,980 | $ 1,826,833 | $ 1,791,453 | $ 5,827,788 |
| 4 | 21.57 | $ 2,795,121 | $ 2,157,715 | $ 1,835,967 | $ 1,800,410 | $ 5,856,927 |
| 5 | 21.68 | $ 2,809,097 | $ 2,168,503 | $ 1,845,147 | $ 1,809,412 | $ 5,886,212 |
| 6 | 21.79 | $ 2,823,143 | $ 2,179,346 | $ 1,854,372 | $ 1,818,459 | $ 5,915,643 |
| 7 | 21.90 | $ 2,837,258 | $ 2,190,242 | $ 1,863,644 | $ 1,827,552 | $ 5,945,221 |
| 8 | 22.01 | $ 2,851,445 | $ 2,201,194 | $ 1,872,962 | $ 1,836,689 | $ 5,974,947 |
| 9 | 22.12 | $ 2,865,702 | $ 2,212,200 | $ 1,882,327 | $ 1,845,873 | $ 6,004,822 |
| 10 | 22.23 | $ 2,880,030 | $ 2,223,261 | $ 1,891,739 | $ 1,855,102 | $ 6,034,846 |
| **10-Year Total** | | **$ 28,164,000** | **$ 21,741,407** | **$ 18,499,435** | **$ 18,141,162** | **$ 59,015,147** |
| **10-Year Average** | | **$ 2,816,400** | **$ 2,174,141** | **$ 1,849,943** | **$ 1,814,116** | **$ 5,901,515** |

**Year 1 Tax Rate based on 2019-2020 tax rate. Assumes an average tax rate increase of 0.5% based on most recent 5-year annual average.*

*Source: Camoin 310*

The following table shows the total estimated property tax revenue for the Bethlehem Central School District from both direct on-site property tax revenues and indirect off-site property tax revenues generated from new economic activity generated in the School District.

| Total Estimated School District Tax Revenues (On and Off-Site Generated Revenue) (10-Years) | | | | | |
|---|---|---|---|---|---|
| Year | Concept A | Concept B | Concept C | Concept D | Concept D.1 |
| 1 | $ 4,328,235 | $ 3,458,045 | $ 3,120,888 | $ 2,076,484 | $ 6,577,445 |
| 2 | $ 4,349,894 | $ 3,475,350 | $ 3,136,507 | $ 2,086,870 | $ 6,610,341 |
| 3 | $ 4,371,661 | $ 3,492,741 | $ 3,152,204 | $ 2,097,308 | $ 6,643,401 |
| 4 | $ 4,393,537 | $ 3,510,220 | $ 3,167,979 | $ 2,107,798 | $ 6,676,627 |
| 5 | $ 4,415,522 | $ 3,527,786 | $ 3,183,834 | $ 2,118,340 | $ 6,710,020 |
| 6 | $ 4,437,617 | $ 3,545,440 | $ 3,199,768 | $ 2,128,935 | $ 6,743,579 |
| 7 | $ 4,459,823 | $ 3,563,182 | $ 3,215,782 | $ 2,139,583 | $ 6,777,306 |
| 8 | $ 4,482,140 | $ 3,581,013 | $ 3,231,875 | $ 2,150,285 | $ 6,811,202 |
| 9 | $ 4,504,569 | $ 3,598,933 | $ 3,248,050 | $ 2,161,039 | $ 6,845,267 |
| 10 | $ 4,527,110 | $ 3,616,943 | $ 3,264,305 | $ 2,171,848 | $ 6,879,502 |
| **10-Year Total** | **$ 44,270,108** | **$ 35,369,652** | **$ 31,921,191** | **$ 21,238,490** | **$ 67,274,689** |
| **10-Year Average** | **$ 4,427,011** | **$ 3,536,965** | **$ 3,192,119** | **$ 2,123,849** | **$ 6,727,469** |

**Year 1 Tax Rate based on 2019-2020 tax rate. Assumes an average tax rate increase of 0.5% based on most recent 5-year annual average.*

*Source: Camoin 310*

## School District Costs (DGEIS Section 3.16.2 Potential Impacts)

Major development projects can potentially result in increased costs to local school districts associated with an increase in school aged children; however, the future development of Beacon Island will be entirely industrial in nature. The property is zoned for Heavy Industrial and the Port of Albany is pursuing industrial developers and tenants for the site. No residential development is anticipated. Therefore, the Bethlehem Central School District is not anticipated to incur any increased costs associated with increased enrollment of students as a direct result of future industrial development on the property. No potential significant adverse impacts on the School District are found.

## Mitigation Measures (DGEIS Section 3.16.3)

No mitigation measures are necessary due to the finding of no potential significant adverse impacts on the School District.

# APPENDIX A: WHAT IS AN ECONOMIC IMPACT ANALYSIS?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial “change in final demand”. To understand the meaning of “change in final demand”, consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells $1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is $1 million because dollars are flowing in from outside the United States and are therefore “new” dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the “Direct Effects” of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer’s vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will “leak out”. What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of industry-to-industry purchases. Finally, the widget manufacturer has employees who will naturally spend their wages. Again, those wages spent will either be for local goods and services or will “leak” out of the economy. The purchases of local goods and services will then stimulate other local economic activity. Together, these effects are referred to as the “Indirect Effects” of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial $1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects. The ratio of Total Effects to Direct Effects is called the “multiplier effect” and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar ($1) of change in final demand, an additional $1.40 of indirect economic activity occurs for a total of $2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the “local economy” is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the $1 million of widgets being purchased by Canadians is not causing total North American demand to increase by $1 million. Presumably, those Canadian purchasers will have $1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in the US will cause a change in final demand because all of those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many “new” dollars the producer would be causing to occur domestically.

# APPENDIX B: WHAT IS A FISCAL IMPACT ANALYSIS?

Fiscal impact analysis is a tool that compares, for a given project or policy change, changes in governmental costs against changes in governmental revenues. For example, a major residential development project in Town A will mean new residents that require new services and facilities such as fire and police protection, libraries, schools, parks, and others. At the same time, Town A will receive new revenues from the project in the form of property tax revenues, local sales tax revenue, and other taxes and fees. A fiscal impact analysis compares the total expected costs to the total expected revenues to determine the net fiscal impact of the proposed development on Town A.

Typical revenues and costs in a fiscal impact analysis include (but are not limited to) the following:

- Property tax
- Sales tax
- Income tax
- Other local taxes
- Water and sewer fees
- One-time construction-related fees
- Impact fees
- Miscellaneous fees

- Increased staffing costs
- Water and sewer and other infrastructure costs
- Road maintenance costs
- Public school costs
- Police and fire protection costs
- New parks and recreation facilities
- Miscellaneous costs

There are several standard methodologies that can be employed in a fiscal impact analysis. The two general approaches to fiscal impact analysis are *average* costing and *marginal* costing:

- **Average Costing:** This method establishes an existing average cost per unit of service. So for example, to understand new road maintenance costs in Town A, this methodology would calculate the average cost per road-mile in the town currently. This average cost would then be multiplied by the number of new road miles added to the Town because of the development.

  Similar to the average costing approach is the "Proportional Evaluation Method" that uses the proportion of local property the development comprises (typically measured by assessed value.) For example, if the development in Town A increases the town's total assessed value by 1%, then under this method it is assumed that the town's costs and revenues will increase by 1%. This 1% factor is only applied to those costs and revenues likely to be affected by the Project.

- **Marginal Costing (Case Study):** The marginal approach addresses the Town's *capacity* to deliver services. For example, If Town A does not have the equipment or manpower to maintain the new roads, then additional costs will be incurred to purchase new equipment and hire additional staff. Conversely, a school district may have excess space due to historically declining enrollments, obviating the need to build new schools for an influx of new residents.

  This approach involves case studies and interviews with local officials and experts. It takes a more detailed look at the deficient (or excess) capacity to deliver services by getting more precise estimates of how different government bodies will be affected by a given development.

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# APPENDIX K

# PUBLIC HEARING AND PUBLIC MEETING TRANSCRIPT

PUBLIC HEARING

TOWN OF BETHLEHEM, NEW YORK

TOWN OF BETHLEHEM PLANNING BOARD

DATE: 9-3-19

Bethlehem NY Planning Board Public Hearing 9-3-19

ATTENDEES:

JOHN SMOLINSKY, Chairman

SCOTT LEWENDON, Member

GIANNA AIEZZA, Member

BRIAN GYORY, Member

MARK SWEENEY, Counsel

KATE POWERS, Recused member

ROBERT LESLIE, Director of planning

LESLIE LOMBARDO, Senior Planner

DEBORAH KITCHEN, Planning assistant

ELIZABETH STAUBACH, Economic Development Coordinator

JOELYN HAKES, Town designated engineer Representative

Bethlehem NY Planning Board Public Hearing 9-3-19

CHAIRMAN SMOLINSKY: Welcome, everyone, to the September 3rd meeting of the Bethlehem Planning Board. We have a quorum tonight. I'll call the meeting to order.

First order of business is a couple of comments on regular-agenda items, except I would ask you, if your comment is on the Port project, please hold that until we open the public hearing in a -- a -- in a few minutes.

So, if anyone would like to comment on the other agenda items, please come on up.

MR. SEGAL: Good evening.

I -- I -- my name's Art Segal. I've been a resident of Fieldstone Drive, for eighteen years and I'm a member of the Fieldstone Coalition to preserve the safety and character of our street. A group of my neighbors have strongly opposed the

creation of a cut-through street, from Fieldstone to the proposed new Charlotte development.

We respectfully request that certain materials be added to the Planning Board record, which were not part of the agenda packet for this evening's meeting and that they be carefully reviewed and considered. I have made copies of these materials for each of you, as well as a copy for the Board, itself and Debby was kind enough, I think, to pass those -- to pass those out.

So, these include -- and I'll just describe them briefly.

On the petition dated October 2nd, 2015, signed by Fieldstone residents, when a cut-through street was first proposed four years ago. This petition describes why a third access to the proposed development on Fieldstone, will endanger the safety of the many small children playing on Fieldstone, the residents who walk there, destroy protected wetlands, created unneeded and dangerous Elm Avenue (phonetic spelling) and town park shortcut and cause additional speeding opportunities and hazards.

Second, is a letter dated June 17th, 2015, from the county of Albany, Department of Public Works, which states as follows. The town should consider connections between subdivisions against whether or not the through connection to Fieldstone Drive, from this subdivision, will encourage cut-through traffic from Murray Avenue, to County Route 52 Elm Avenue and Old Elm Avenue. In addition, the

Bethlehem NY Planning Board Public Hearing 9-3-19

connection to Fieldstone Drive, forces wetland mitigation.

Third, is a letter dated June 17th, 2015, from the Albany County Planning Board, adopting the conclusions of the Albany Planning Department of Works, that I just read.

A letter dated June 24th, 2015, from the Army Corps of Engineers, recommending that to the environmentally-sound protected wetlands for any project should not be disturbed.

Finally, a letter dated August 22nd, 2016, from Licensed Civil Engineer, Andrew Mahey (phonetic spelling), a resident on Fieldstone Drive, provided a detailed analysis of what the Fieldstone cut-through and the significant wetland disturbances will cause, violates basic environmental and conservation principles, will create excessive and dangerous cut-through traffic and is inconsistent with town planning best practices and the town's own comprehensive planning. This letter also points to the flaws of the incomplete and inadequate traffic study, which was conducted to support the cut-through, four years ago.

I'm also providing a copy of my

comments for your reference and convenience.

We also ask that you seriously consider and give due weight to the following materials, which were, in fact, included in the agenda packet. The letter from the Department of Environmental Conservation, dated of June -- July 22nd, 2015, that stated, the project proposes several wetland crossings for the roadways. It is recommended, as part of the SEQRA for this project, that alternatives be evaluated to avoid and minimize wetland's crossings to the greatest extent practicable.

Second, we’d like you to consider the recent opinion of the Bethlehem Superintendent of Highways, John Anastasi (phonetic spelling), opposing a third roadway, on the grounds that it will require additional and unnecessary time and cost, to clean and maintain the roadway and associated culverts and retaining walls. The convenient-space objection -- objections of Superintendent Anastasi's predecessor, are no longer an issue, or a concern.

Third, we would like you to consider, obviously, the letter from the Bethlehem Department of Public Works, dated June 2nd, 2019, indicating a

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Fieldstone water-utility connection, is not needed to meet recommended standards.

And finally, the report from C.T. Yale Associates (phonetic spelling), dated February 27th, 2019, which addresses the Fieldstone issue as follows.

This connection would require a large disturbance of federal wetlands to complete approximately one acre. This large wetland's disturbance, coupled with the maintenance requirements transmitted to the town for this right-of-way, economic impacts of construction and potential hardships, have ruled this as impractical alternative to the proposed layout.

The desire to have this cut-through four years ago, was based upon a comprehensive plan that is now outdated and is currently in the process of being revised and refreshed, to emphasize what this town is now all about. Fewer cars, fewer cut-throughs, fewer neighborhood disturbances, where plentiful for opportunities for enjoyable and safe walking and biking, greater protection of our environment, natural habitats and wildlife and meaningful preservation of the character and safety of our residential communities.

Fieldstone Drive has been in existence as a dead-end street for twenty-five years. There is a second generation of children, who are growing up there. There is no longer a temporary-sub street that was expected to be extended after a year or two, to complete a development project. It has grown in to a permanent and mature community.

There are twelve children under twelve now on this narrow, twisty street, six of them who moved in within the last several years, all under eight years old and all living in two houses, just behind a -- beyond a blind curve, that on any given day, is concerning, even at fifteen miles an hour and downright terrifying, when cars are parked along the road, creating just barely enough room for a single car to get through, creating a thirty-mile-per-hour thoroughfare on the street.

Given these conditions and the environmental impacts, it's simply not acceptable under any standard. We ask, that in addition to all the information now before you, that points decisively in favor of approving a plan containing two, more than sufficient, egress and ingress roads, you seriously consider the concerns of the residents of Fieldstone and the many neighbors on Murray and other streets in the area who have joined us. We respectfully request that you reject any insistence upon a third access to the development through Fieldstone.

Failing to do so, will -- will create a real and completely preventable threat to the health, safety and well-being of the residents of this town and unnecessarily destroy protected natural resources, open spaces, habitats, all of which we already have too few of in our town.

Thank you very much.

CHAIRMAN SMOLINSKY: All right. Thank you, Art.

Okay. Anyone else? Comments on agenda items.

MS. INFINTINO: My name is Sarah Infintino (phonetic spelling) and I live at 20 Fieldstone and my children are four and seven.

Part of the reason we moved to Fieldstone, three-and-a-half years ago, was because it was a quiet street without a lot of traffic. Building this thoroughfare will increase the amount of traffic on the street, likely going at faster rates of speed.

Also, most -- everyone is familiar with the neighbors on the street and the traffic on the street is primarily people who reside on Fieldstone Drive. I think this thoroughfare will increase the number of unfamiliar people in our neighborhood.

The increase in traffic flow and the rates of speeding is a deterrent to our children's safe -- is a detriment to our children's safety. We are just one family, with small children in the neighborhood. Taking a walk or riding bikes would be a more perilous undertaking overall, for the children.

Thank you.

CHAIRMAN SMOLINSKY: Thank you.

Anyone else?

Seeing no one else, we'll move on to minutes approval.

We have the minutes of Tuesday, August 20th and Rob, there are some changes to it, if you want to discuss the slight corrections you made.

MR. LESLIE: Yeah.

We had a -- a change on the -- the rate for the -- in regards to the project on just we would move to strike that. I think it's on page 2, I believe, if I'm right.

And, then, there's just some minor clarifications to the item related to the -- the subdivision. Again, those are some minor clarifications, none of which changes the substance of the --.

CHAIRMAN SMOLINSKY: No. I don't think --

MR. LESLIE: Okay.

CHAIRMAN SMOLINSKY: -- so, unless we have a request from a Board member.

Can I have a motion to approve the minutes of August 20th?

MR. GYORY: Well, John, is there a possibility that we can hold till next -- and I think it would be best if we just hold because it's not --.

CHAIRMAN SMOLINSKY: Sure.

I don’t --.

MR. GYORY: I don't -- I don’t think it'll hold anything up.

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CHAIRMAN SMOLINSKY: No. No.
MR. GYORY: It's --.
CHAIRMAN SMOLINSKY: There's no harm, no foul, I guess.
MR. GYORY: Thank you.
CHAIRMAN SMOLINSKY: All right. So, our first order of business tonight, is the Port Road/South Beacon Island/Albany Port district expansion project.
First, I'll turn the floor over to Kate Powers.
MS. POWERS: So, I've notified the Board, just because of my work at the Attorney General's Office and a possibility of a future conflict, I have decided it's in the best interest of my role there and my role as a Planning Board member of the public, to recuse myself from the Port project.
So, I will be doing that. I'll be stepping right outside and returning, after consideration on this matter.
CHAIRMAN SMOLINSKY: Okay. Thank you, Kate.
Couple of general things to talk about

before we start. The Applicant has hired a Transcriber. Someone to --.

MR. LEWENDON: Stenographer.

CHAIRMAN SMOLINSKY: Yeah. Stenographer, but they don't do stenography.

Anyhow, someone to trans -- record the transcript for this project.

We all -- have a sign-up sheet in the back, for those of you who want to address this project and there is a sign-up sheet right up here, if you've forgotten to do that. It helps the Stenographer spell names correctly and -- and determine who's -- who’s who, as they're speaking.

It's also important to introduce yourself when you come up. Speak into the microphone, loud and clear. It's adjustable up and down. The angle adjusts. That also helps all of us understand and hear what you're saying. It helps the recording on the video, if you do that clearly.

On that note, I'd like a motion to open the public hearing.

MR. GYORY: So moved.

MS. AIEZZA: Second.

CHAIRMAN SMOLINSKY: All in favor?

ALL: Aye.

CHAIRMAN SMOLINSKY: Aye.

Again, just a couple of protocol mentions. I already mentioned the microphone, but one speaker at a time throughout this process. Please respect whoever has the floor, at the time.

Interruptions are really not a good thing. If more than one person is talking, that means there are several people that aren't listening and it makes it harder for all of us to listen to two, or three voices at the same time. So, let's try to avoid that.

And I’d like a motion to waive the reading of the notice and to indent the notice into the record of the hearing?

MS. AIEZZA: So moved.

MR. SWEENEY: Second.

CHAIRMAN SMOLINSKY: All in favor?

BOARD: Aye.

CHAIRMAN SMOLINSKY: All right. I'd like Rob and Mark to start out with, probably, the short history of the app -- project application, what we've done so far, what steps you've gone through. And then, Mark and/or Rob will talk about the purpose and procedure of today's public hearing.

MR. Sure.

Thanks, John.

Just by way of -- sort of a background, the application by the Port, for the expansion of eight -- about eighty-two acres into the town of Bethlehem, the application was submitted and reviewed by the Planning Board, for an initial application, in late 2018. Then, in early January, the Planning Board determined that the project may have a -- a significant effect on the environment and that an environmental-impact statement should be prepared.

So, the Board then the -- the Board conducted a public-scoping session process. The public-scoping session was held on March 3rd, which gave the opportunity to provide comment from the public. And then on March 27th, the final scope, with the draft of the environmental-impact statement was accepted and since -- since that March report, we have been -- we're working on addressing the section of this draft.

Moving ahead to August -- August 6th, the Town Planning Board formally accepted the draft -

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- two drafts, as complete and after two meetings, the Board scheduled a public hearing for tonight, September 3rd. The Board has also maintained a public-comment period, from October -- from August 7th through September 13th. So there's about -- I don't know, one more week that it will be available for the public to provide written comments, for those members of the public who aren't able to attend tonight's meeting. Written comments will be accepted through September 13th.

So, that's where we are with regards to the history of the projects and the scoping session process, that we've gone through and drafts, as well.

CHAIRMAN SMOLINSKY: Thank you, Rob.

MR. SWEENEY: So tonight, for the public hearing, basically, it's an opportunity for the public and the Board members to address their comments to the Board and the Applicant. The Applicant will be providing a presentation tonight on the project.

We ask that you make your comments at the microphone, as we discussed. And then, we're -- those comments will be accepted and reviewed by the

Board, the staff, the town -- town-designated engineer, and provided to the Applicant for responses.

So, the responses from the Applicant will come in the final generic Environmental Impact Statement, that will be provided as the next real step and milestone in this process. So, the comment period will remain open for another ten days after this public hearing and -- actually, until September 14th and -- so, it will remain open. So, if there is a comment that you didn't make tonight and would like to add with -- till September 14th, to do so in writing.

But, the purpose of tonight is to receive the comments and not have a -- a question-and-answer session, so much as an opportunity for you to ask your questions or make a comment that can then be responded to by the Applicant. And then those responses, will be reviewed by the Board and determined whether they're sufficient and they'll be -- if they are, that will be accepted. If not, the Applicant will have some more work to do and we'll take it from there.

But the process right now is to get

all of your comments, all the comments from the board as part of the public record. It'll be captured by the Stenographer and turned into a transcript. That transcript will then be part of the final generic and Environmental Impact Statement and used to -- as a basis for creating the comments and responses within that realm.

If there's any questions from the board, or the staff --?

CHAIRMAN SMOLINSKY: Thank you, Mark.

Now, I'd like to turn the floor over to the Applicant and its consultants for a full discussion of the draft, generic Environmental Impact Statement.

And I think, one thing I'd say, Mark, is after we hear -- after this presentation, we'll open the floor for public comments. We'll open the floor for Board comments. And, I'm -- I'm thinking we would give the Applicant another opportunity, if there's anything they want to add based on what they've heard.

MR. SWEENEY: We certainly can do that if you’d like.

CHAIRMAN SMOLINSKY: We'll see how it

goes.

MR. SWEENEY: Right.

Steve?

MR. BOISVERT: Good evening.

I'm Steve Boisvert with McFarland Johnson and I have here with me, professionals that contributed to the preparation of the Environmental Impact Statement. They are experts in their respective fields. What I'd like to do is go through a presentation that will introduce each of the professional experts and they will prepare a presentation, about their particular subject matter.

I also would like to let you know that we have here, the C.E.O. of The Port of Albany, Rich Hendrick and we also have Megan Daly, Head -- Director.

So with that, by way of background, how we got here, back in 2016, the Port commissioned a marketing study. The marketing study concluded, saying that their current supply chain, which is warehouse distribution, light manufacturing, was in strong need for the fore -- foreseeable future. They also concluded that, currently, the Port owns about four hundred acres, from which over ninety percent is currently occupied. So, in order to plan for future growth, they needed to purchase additional land.

That study was validated in 2018, early 2018, and in late 2018, the Port purchased property formerly known as Beacon Island and that at least eighty acres from which the project is being proposed on.

The location of the project, is such that it is bound on the East Hudson River, to the North of Normans Kill, to the West was actually a transmission line, owned by National Grid and just to the west of that, is River Road.

The property outlined in magenta, also has two easements accompanied to the property, from which National Grid granted an access easement, along the southern portion of the property tying in the Route 11 look and also midway down to properties, tying them to -- also River Road. They're used for the utility easement.

Access to the property currently does not exist. A new road will be extended from Port Road South, with a bridge over Normans Kill and will traverse through the property and then come out the south easement and tie into River Road. As currently

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shown, the area, that’s vacant land right now and is zoned heavy industrial.

So, the Environmental Impact Statement and generic SEQRA Laws allow us to prepare engineering scenario, in which, right now, the Port does not have any proposed tenant, or project in mind. Therefore, we're not proposing any specific use, other than it will be an industrial use and it won't have any specific project plans.

So, what we have done, is prepare a series of concept plans, that will be a culmination of the worst-case scenario, from which the Environmental Impact Statement will analyze that worst-case scenario. So, what I'll do now, is walk you through the concept plans and various sizes and shapes that comprise of the ultimate worst-case, or concept that we are evaluating under the Environmental Impact Statement.

So, the first concept is a hundred and sixty thousand square foot fabrication building, that will be earmarked for the offshore-wind industry. And the project also includes -- all projects includes access to the north over Normans Kill, again, meandering over through the property and tying into River Road. They also all have a -- also all have a rail component, the existing rail line will be extended over Normans Kill, through the property and terminate just before it leaves the site. All the concepts will have a wharf, that will be able to address potential maritime use.

So, these two -- this concept and the next one, specifically address the offshore-wind scenario, in which a small manufacturing, or fabrication building will be erected and the balance of the property will be used for storage, or a staging area, prior to it being shipped out to sea.

This is an offshore-wind manufacturing plant, that could potentially, to manufacture turbines, or blades, again, with a -- a large area outside the building for storage, staging, before being shipped out to sea.

The next concept is a concept with a multi-tenant, multi-building scenario, currently as a port currently operates, in which there's four buildings here, which could potentially be subdivided and sold off to an individual company, or a company that would subdivide the building into multiple tenants. This particular scenario does include a public road -- town -- a port road south of the town would be extended through the property and tie into River Road, thereby creating either two to four lots, which include the road.  Total square footage here is about eight hundred to ten thousand square feet.  And then, this scenario is five hundred thousand square feet and the very first scenario is a hundred and sixty thousand square feet.

So, you can see we're growing in size, the project and each project is getting slightly larger than as a cumulative effect.  This is a nine hundred thousand square foot building that could be used as a warehouse, or a distribution center, where potentially, even a larger manufacturing plant has access to the same points to the north and the south. Employee parking, truck parking, loading docks, all along the eastern edge.

So, we took all the major components of each of these concepts and took the worst-case scenario and created the final concept, which captures all of the hypothetical impacts, the worst impacts, associated with previous concepts and that is the project that was -- is evaluated at one point three one million square feet, two-story building,

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that will house industrial use, a total of eighty-five feet high and has all of the components that we talked about, with regard to the rail and the wharf.

So, this is the project that was evaluated in the Environmental Impact Statement. It did account for storm water and you’ll hear from all of our experts as to the impact that this project has on the environment.

As Rob mentioned, we did a public-scoping session, with the Planning Board and public and we created a scoping document, which is an outline of the Generic Environmental Impact Statement, which was adopted on April 2nd. And here are the table of contents of the environmental-impact statement. It is over fourteen hundred pages long and these are the topics -- the subjects that are going to be discussed in detail at a later date.

Everything you see here, is the technical reports that were made part of the Environmental Impact Statement. So, we can see that there -- we'll call it a survey prepared, a geotechnical report prepared, a dredging reported, endangered species, a wetland-contamination report, traffic studies, sonar report, the water, natural resources, visual impact, economic and fiscal impact and the alternatives I just described, all of which are appendices to the D.G.I.S.

And with that, I'll turn it over to Ashley.

MS. ERDMANN: My name is Ashley Erdmann. I'm with McFarland Johnson. I'm a Professional Engineer, with experience in civil and environmental engineering.

The first section I helped author, is the historic, cultural and archaeological resources section. The project has been reviewed with the Office of Parks, Recreation and Historic Preservation, or SHPO, as we alternatively refer to it as. Multiple studies were completed for SHPO and as of March of this year, SHPO had provided a no adverse effect to the project, determining that the project would not affect the cultural and historical resources of the area.

We have recently been working with SHPO, regarding the view shed from Pabst City Island, which is a historically-sensitive area. You can see here we completed a visual simulation of the project site, from Pabst City Island, looking towards our site. So specifically, this photo was taken from American Oil Road and back here is our building that is eighty-five feet tall, simulated into the photo. You can see directly to the south is the P.S.A.G. site. From this photo simulation we have determined that the project does not have adverse effect for the view shed.

All documents regarding the cultural and archaeological documents, are located in Appendix L and in the land use and zoning section, we determined that the project is in compliance with the town’s comprehensive plan, as well as the Zoning Code. The area, yard and bulk regulations are all met, except for the building height. Currently the building height has a maximum height of eighty-five -- or sixty feet -- excuse me. And we’re proposing eighty-five feet, but the project is in compliance with the surrounding facilities, of which the neighboring property to the south, has buildings that range from ninety to two hundred feet. So, this project would still be in conformance, with its neighboring properties.

You can see this is the town of Bethlehem zoning map, showing that the whole area

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around the project site is zoned as I, or heavy industrial and the project will remain heavy industrial. The community character and compatibility with the comprehensive plan, the comprehensive plan is quoted as saying, development with any industrial areas, provide a much needed tax base for the town. So, the town is actively wanting to develop this area, as well as in the local waterfront-revitalization plans, they also discuss this project. The project is in conformance with those two documents from the town of Bethlehem, as well as the project will encourage the tenants of the facility, to use renewable and alternative energy sources and build the building, with lead standards.

For the emergency services, we have been in correspondence with all emergency agencies, including the local police department, fire department and the emergency services or paramedic's departments and we will make sure -- the mitigation will be that the building is built using all local codes, including the Uniform Fire Protection Building Codes, sprinkler and standpipes, as well as the road will be developed to meet the requirements of the emergency vehicles.

We have analyzed all of the parks, within a one-mile radius of the project, between the recreation and open-space section, the SHPO section, as well as the visual-assessment section and it has been determined that there is no impact on the recreation and open spaces, within the one-mile radius of the project.

We have a map here, showing the town of Bethlehem parks.

And the last section that I helped compose, was the climate and air section. So, the New York State Ambient Air Quality Report, as well as the Albany South end Neighborhood Air Quality Screening and Study Reports, were reviewed in correspondence to this project. They're -- at the loud -- nearest monitoring station in Loudonville, there have been no non-compliance ratings, within the last five years and regarding the Albany South end Neighborhood Air Quality Screening and Study, there have been air toxics measured at average concentrations, that are similar to the averages measured throughout the state of New York and they've done qualitative analysis to determine that the effects of human health in this area, have been ranked -- determined to be low to moderate.

They've also done a specific study for the odors, for the Port of Albany and less than point two two percent of those readings, came up as even measurable by the equipment used by the D.E.C. and it is unlikely that our project will increase the odors. The project will also not increase the greenhouse-gas emissions, but the -- the project will encourage the future users to implement green practices to minimum -- minimize greenhouse actions, as well as during construction, there will dust suppression and a camp implemented.

So, with that, I will introduce Tom Wirickx.

MR. WIRICKX: Good evening.

I'm Tom Wirickx with McFarland Johnson. I'm a Senior Environmentalist.

I'll start off with the studies of geology on the site -- the site -- the portions of the site, were historically used for coal ash --.

CHAIRMAN SMOLINSKY: Could you hold the mic a little closer, please?

MR. WIRICKX: Is that better?

CHAIRMAN SMOLINSKY: Yeah.

MR. WIRICKX: Portions of the site were historically used for coal-ash disposal, as well as the landfill and operations to create land in and around the island. As a result, even though soil conditions, dynamic compaction is proposed, collectively handling and engineering of institutional controls, implementation by the D.E.C. to avoid potential effects to the environment and to human health.

Typically what’s done in these situations, is they -- a cover is placed over the site, which would be -- consist of one or two feet of soil, covered with pavement, concrete, or a building slab, with a demarcation layer, overlying the coal ash, such that any future excavation will know that there is a demarcation layer, which material below that requires further investigation and evaluation by the D.E.C.

Standard erosion and sediment controls, will be implemented to mitigate potential surface-water quality impacts on Normans Kill and the Hudson River, during and post-construction. Due to the potential presence of the state and federally-listed threatened bird and migrant bats, all trees on the site, will be cut between November 1st and March 31st, in order to -- to avoid potential impacts to Shortnose and Atlantic Sturgeon, dredging will be conducted between September 1st and November 30th, so also further mitigating the potential impacts to the water -- the fisheries of the Normans Kill and the Hudson River. According to the D.E.C., there has been historic record set of greater freshwater mussels in the vicinity of the project area, in the Hudson River. As a result, our -- in dredging, where we're creating disturbances, the freshwater-mussels area will be -- based on the most-recent D.E.C. vegetation survey, which was conducted in 2016, a small area was picked out. You can kind of see, it's the small -- small area, right about the center of the site, right near the Hudson River. The project as designed, the worst case scenario would not impact this area.

In addition, a rate plant survey was conducted. All rare plant species were protected, within the vicinity of the project impacts. McFarland Johnson conducted a wetland survey, as far as -- in the spring of 2019. Eight federally-regulated wetlands were identified in the project

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vicinity, two out -- two surface water actually, both federal and state-regulated, were identified and that’s the Hudson River and Normans Kill.

Obviously, mitigation for -- for impacts on the surface waters of the wetlands, will involve the coordination of the D.E.C. and the Army Corps of Engineers, in any mitigation that it may require. Worst-case scenario, as designed, will impact, approximately four-thousandths of an acre, of federally-regulated wetland located along the Normans Kill. At this level of impact, the project should qualify for Army Corps of Engineers Agreement.

The majority of the project area, is located on a flood-zone area. We have a map of the flood zone area. The baseline elevation was determined to be eighteen feet by FEMA.

As a result, we’ll take into consideration potential climate-related sea-level rise, through to the year 2100, under the low projection, we could add about nineteen feet. As a result, in terms of FEMA guidelines, building to finished elevations, will be at twenty -- twenty point three feet to provide a minimum of one point three feet above the low-projected sea-level rise

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elevation level.

So, just to clarify, the low projection, this is the elevation that is very likely to occur within that timeframe, through 2100. Again, to -- some of -- other evaluations were conducted by the D.E.C.

As previously mentioned, the project will involve system water and sediment controls, to comply with SPEDES, to control for standards for ground water and surface water during and post-construction. There shouldn’t be any potential ground-water impacts in the areas serviced by public water-supply service. So, it should not become a problem for a domestic water, to supply to residents in the project area.

We found that -- it -- it should say the county’s landfills have -- currently have the capacity to handle the waste from the project, this includes the City of Albany Landfill -- Landfill, as well as the Town of Colonie Landfill. The Town of Bethlehem, has a -- a recycling policy. As a result, the port will encourage all tenants to comply with that recycling policy, to reduce potential landfill waste, as a result of the project.

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MR. BRADFORD: Thank you, Tom.

My name is Turner Bradford. I'm with McFarland Johnson, as well. I'm a Professional Engineer. I also have a Masters in water resources. So, I'll go through the drainage, the water supply, the sewer and the visual assessment.

Well, we'll start here with the drainage. So, we analyzed the project, in accordance with the New York State D.E.C. stormwater manual and the SPDES Permit. And there were four items that you need to go through, to make sure that you're mitigating. Water quality, water quantity and erosion and sediment control, largely during construction and then any permanent -- any permanent things that need to stay in place, to ensure that those mitigations stay in place over the life of the project. So, I'll go through each of these in turn.

The first thing we do is we analyze the water shed. So, this is actually the entire lower Hudson River basin. We're way up on the north, where that circle is. So, were are the Normans Kill sub-catchment of the lower Hudson River basin. This sub-catchment is monitored by the D.E.C. and is not

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listed in the -- in the SPDES Appendix to -- to monitor phosphorous for construction. Nor is it listed in the SPDES Appendix, to monitor construction as -- activity and all of that, is just a fancy way of saying beyond what is required in the manual, there are no extra requirements placed upon the project.

So, this is the existing site, as Tom and Steve just described it. It is largely undeveloped and in it drains, although rather slowly because it's -- it's mostly flat, to the Hudson and Normans Kill. So, in -- in this graphic, north is to the right. The Hudson River's on the bottom of the page, to the east of the site and then Normans Kill cut thru -- that's the Norman's Kill, cutting through the north of the site. This is the Hudson River here. So, the P.S.&G power lines are over here. And then this is the alternative, as Steve described, our worst-case scenario. The building, the parking, the water flow and the river here, the entrance to the site, the connection back to River Road.

So, to address water quality, there are two items that the manual requires. Water-quality line and run-off production lines. The runoff production line is essentially the green infrastructure to attempt to recreate the natural-evapo transpiration of stormwater back into the environment, through the ground and through the air. This project, we designed three bio-retention basins, to provide the required amount of production line, per the manual. And then the remaining water-quality line, is provided in two stormwater plants. So, there are closed drainage systems, that would collect the run off, direct them to these five practices, providing the water quality and discharge into the Hudson River.

The water quantity, in this case because this project discharges directly into the Hudson River and the Hudson River, at this point, is titled, the stormwater manual does not require water quantity to be mitigated. So, we are not proposing to mitigate water quantity because it's not -- it's not required for this project.

For the erosion and sediment control, as Tom mentioned, there would be standard erosion sediment mitigation. This project is within the town of Bethlehem. The town of Bethlehem is in M.S. four. So, any project is going to need to complete a full-

SWPPP report and that will include the full erosion-sediment control during construction, in accordance with the manual.

And then finally, that'll also include the permanent record of the operational and maintenance plans for the stormwater features. So, there'll be -- any easements, they'll be codified. The -- the maintenance of those features will be responsibility of the Board, or -- or whoever occupies the site, however that gets worked out. But all that's going to be codified with the SWPPP anyway.

So, based upon these four items, we believe that the project has no adverse impact associated with this drainage and that's just a summary report. You can go ahead and take that out.

Appendix J, was the full stormwater report. It goes through all that, in -- in much-greater detail.

The next thing we looked at, was the water service for the site. Now, there are two types of water service. The -- the -- the domestic demand, essentially the potable water that the users of the site will drink. We have a -- a sink, water fountain, bathroom and then the -- the fire protection.

So, the town of Bethlehem actually has a water line, within River Road -- on the west side of River Road, here and here. This is a sixteen-inch water main, this is an eight-inch water main.

It's actually the same water system. They're on separate pressure zones. So I think the conversation here will be to essentially consider them separate systems.

We provided our site to the D.P.W. and the town ran their town wide water model. And what they told us, was that from the south, they can provide one thousand three hundred gallons per minute, of water. And from the North, a thousand gallons per minute.

Based upon the size of building and the number of anticipated employees, we're estimating one thousand -- oh. No. Sorry. That's for new employees. One thousand one hundred and thirty employees, which comes out to an average-daily demand for water, of twelve gallons per minute, with a peak hour of forty seven gallons minute. So, the domestic demand's not an issue, provided our connection is developed.

The fire flow, based on the size of the building, similar buildings and fire-protection systems, is estimated at two thousand three hundred gallons per minute.  So, that is greater than either system can handle.

So, the project has analyzed three alternatives to meet, essentially, the -- the ultimate water demand, being driven by the fire protection.  The first one will be a single connection from a sixteen-inch water main with a water tank that would store enough water to handle the flow and the pressure, to run a fire system.

The second one is a loop through the site, that would connect to both the sixteen and the eight-inch water mains.  In this case, the domestic demand would come off the sixteen-inch main and then, if needed, it could pull water off of both water mains.

And the third alternative is a connection through the right of way, in to River Road, that essentially does the same thing and it connects the -- both systems here, into the site connecting both of them.  It would, again, draw domestic water off of the sixteen-inch main, could draw from both systems, if needed, for a fire.

But based upon these three alternatives, we're confident that the projects water demand can be met and that it doesn't have an adverse impact.

The next section that I helped look at, is the project sewer demand main. So here, we looked at three alternates for connecting to -- actually, not connecting to the -- to systems. We looked at two -- two alternatives for connecting to public systems and one alternate for on-site.

We look at connecting to the town system, but in talking with the town and local knowledge, the connection would have to go up Glenmont Road and the belief, is that that's largely -- and that's a tough connection to make, and that's a tough connection to make.

In the connection, the existing town system from that connection point and the treatment plan, has capacity issues, specifically at a station that runs a force main across -- so knowing all that, we actually did not analyze that for this report.

We analyzed a connection to the Albany

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County Water Purification District. So Albany County runs a sewage-treatment plant, the South Wastewater Treatment Plant, which is in a -- in the existing port. So, a force main would be run, at -- it's somewhere, to the existing plant within the port. It would be a private force main, which is the system that the port has now. The existing users within the port -- port, excuse me, would make private connections to the plant, so there are no other users on that plant. So, it would be a dedicated force main for this facility, to the plant.

The other alternative that we analyzed, was an on -- was on untreatment system. Now, we first looked at, sort of a conventional septic system, raised type system. As Tom mentioned with the historical use of the site, coal ash, the ground water, we discarded that as an option.

But we did look at a package treatment plate, which is, essentially, a manufactured small treatment plant and we reached out to some manufacturers and it is a very realistic option to consider purchasing a small treatment plant, that can handle -- that can handle the flows from this facility and discharge directly into the Hudson

River.

So, again, based upon the same users that were driving water demand, essentially there's the same waste-water demand. It's given in different units. So, the same one thousand one hundred and thirty employees, it's given gallons per day. Sixteen thousand nine hundred and fifty gallons per day. The treatment plant in the port is permitted to operate at twenty-nine million gallons per day and it currently operates just over twenty-three. So, there's just over five million gallons per day, that we will certainly be well beyond what this project will produce. And similarly, in talking to the manufacturers of package treatment plants, we know that there are package treatment plants that can operate, you know, at or above twenty thousand gallons per day, for this type of facility, with tertiary treatment, that would be acceptable for discharge.

So based upon those two scenarios, we're comfortable saying that the -- the sanitary-sewer aspects of this project, have no adverse impact on the -- on the project.

So, the last section that I helped

prepare is the aesthetic and visual report. These are some design elements we used, in considering the project.

And to help to minimize anything, we -- we maintained a vegetative buffer, along the western border of the project, which is the -- essentially, the only border that isn't either P.S.E.G. on the south, or the existing port on the north, or the Hudson.

The buildings' colors will be muted, to try and blend in with the surrounding area. All lighting will be cut off and I think as -- as Ashley mentioned, the project is in keeping with the -- with the surrounding visual aesthetic.

So actually, appendix M, in the report, is a detailed visual-impact assessment. And what that does, is that goes through a constrictive process of analyzing the project, in conformance with the Federal Highways Guidelines. Basically, what you do, is you describe the existing visual character of the area, you identify the view shed for the project. So in this case, it's really along River Road, South Port Road and the Hudson River. You identify any sensitive receptors to the project and that's

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actually what this map is.

So, using the state G.I.S. Clearing House, essentially any culturally-important facility within a one-mile radius, so I believe that's a church, I believe that's a cemetery, here and here and that's Pabst Main Island there, to make sure that any sensitive-visual receptors aren't impacted. We went to those sites, we analyzed the view shed from there and the project cannot be seen.

So, what we were let with, was five areas that we could see the project from. So, those five spots and we went to those five spots and analyzed the view shed and essentially, took pictures, took the G.I.S. look -- or sorry. The -- yeah. The -- the -- the G.I.S. coordinates of those pictures, placed them into a free-rendered model, we had made of the site and then superimposed the pictures on there.

So, this is the first location, which is South Port Road, looking south, into the site. Obviously, you can see the project here. But based upon your location, which is largely industrial and this being a rarely -- seldom-used road, we felt that there was really no mitigation required at this location, as we're essentially -- the only people who were probably driving there, are probably driving to -- to the -- to the site.

This was the second location which is the northwest property line. Now, this is actually not on River Road. You've actually come in, the -- the access easement, along the north of the property and you crossed a railroad -- the railroad tracks are behind you and you sort of see, you're underneath the P.S.E.G. power lines. So, this is the -- the access easement into the north edge of the site.

So, you can see, the existing vegetation gets thin here. This is why we analyze this location, while we're maintaining as much vegetation as we can, based upon the P.S.E.G. power lines, the railroad. We are not recommending any additional mitigation, of this side.

This was the third location, which is the southwest of the project, along River Road, where the southern access to the project, will be built. This is what is called a dynamic view shed. So, this isn't something that -- something you'd likely stand here and see. They would be traveling in a car and so, you would pass quite quickly. It's a small opening, so we are not recommending any additional mitigation of this side, either.

This was the fourth location, which is up Glenmont road. As Glenmont travels up the hill, you gain elevation and there is a clearing in the vegetation, where you can see the project site and so, that is the building there. That's the site. However, it's only the top of the building that you can see and so, we are not recommending anything on this side either.

And then, lastly, the view from the Hudson. So, this is middle of the Hudson, looking back at the project, obviously. You see the project.

However, based upon the -- the comments we made before, that essentially, we have the Port to the north, we have P.S.E.G. to the -- to the south, behind you, there are bulk oil-storage facilities, it is in keeping with the -- the visual aesthetic of the -- of the area and so, we're not recommending any mitigation of this side either.

So, based upon all these and the visual assessment in Appendix M, we feel that the project has no negative impact on the aesthetic or visual resources.

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Those are the topics that I went through and so, I'll turn it over to Adam, who will discuss traffic.

MR. FROSINO: Good evening.

My name is Adam Frosino. I'm also from McFarland Johnson. I am a Project Manager for McFarland Johnson, P.E. and I've got thirteen years' experience of specifically doing traffic-impact studies and traffic-related studies.

This study is similar to other traffic-impact studies, but it and also had some other aspects of it. So, I'll try to go relatively quickly through some of the -- the cookie-cutter stuff and focus a little more on some of the project-related --

CHAIRMAN SMOLINSKY: Adam --

MR. FROSINO: -- items.

CHAIRMAN SMOLINSKY: -- can you hold the mic a little closer.

MR. FROSINO: Sorry.

So first, I want to start by saying that we did complete a traffic-impact study, that was an appendix to the D.G.E.I.S. and that was submitted in draft form. It was reviewed by the town and then

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revised and submitted as -- in final form.

And also, there's been coordination throughout the whole process, whether it be scoping, or development of the traffic-impact study. There's been coordination with the town, to town's engineer, New York State D.O.T. and the public, during the scoping process.

So, I wanted to first start off, by just showing you the study area for the traffic-impact study. There's ten intersections -- existing intersections shown, plus one proposed. It goes all the way as far south as the Exit 22 ramps to I-87 and as far north as the Church and Broadway Street. The -- essentially the north exit from the existing Port.

And at each one of these locations, data was collected, count data. Not just vehicles, but pedestrians and bicycles data, as well. Similar timings, insert intersections, we did gap analysis and we've got geometries for all the intersections, as well. All that information, I'll talk about, goes into a traffic-analysis model.

So, after we collected all that data, the next step was figuring out, okay, when is this project going to be completed. We went with the

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build date of 2029, assuming a ten-year build out.

With that, we used a background growth rate, based on how traffic's been going out there, over the last few years and we applied that. That was at half percent per year.

And then we also incorporated, as applicable, a bunch of other potential projects down the road, that we received information for, from the town.

From there, we looked at what trips would be generated by outpost site. We add gross-scoring network, we distributed them and then we came up with a build by of 2029, as well.

I'll go through each one these steps, relatively quickly, but that's kind of a -- a -- out process, from a capacity standpoint. So, we're looking at what would happen if the project was not built at all, in 2029 and then comparing it to what the traffic conditions would be, with the project there.

So, for trip generation -- so this is a little bit of a unique site. We did look at the I.T.E., The Institute of Transportation Engineers, Trip Generation Manual. That's kind of the

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nationwide manual used and accepted to generate traffic, from a -- a virgin site that has nothing on it. So, we looked at that.

We looked at the potential uses and then we also compared that, with the volumes that are currently being generated by the Port of Albany. Given that this is an expansion of the Port of Albany, the I.T.E. Trip Generation Manual actually recommends, if you can find a similar use in close proximity, that is a much-more accurate way to generate traffic, in regard to how many trip you will be generating.

So, that is what we use, but that is a gut check. We did go back and compare what we calculated with the industrial park Houston I.T.E., which was actually very similar in numbers. And we also compared it to warehousing, which our numbers we used, were actually significantly higher. And then, we also looked at it -- this -- all this one -- over one million square feet, was manufacturing and we were looking at lower than that. So, we're kind of right in the middle and that's our that's our best guess, at this point. It's a -- a fairly-conservative assumption, at this point.

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So, when all is said and done, after -- we also broke this up into three phases, at the request of the town, just so we could see when the -- will be needed at the site, especially if you look at one of the alternatives that Steve will be multi-tenant, it is possible that this could have one tenant and then a couple years down the road, there'll be a separate tenant. So, we wanted to look at looked at whether that got -- that phasing made sense, as well.

So, the end result though, is we're looking at over -- roughly five-hundred cars entering during the morning-peak hours and five hundred cars exiting during the evening-peak hour, for the full-build scenario of the one point one three million square feet option.

Again, that's the -- well, the -- that's the most-conservative option, largest square footage, with most employees. Most employees needed, most traffic on the road generated.

So, we did distribute the traffic and we distributed all the traffic, based on the traffic distribution from the existing Port. We did that and then also took into consideration the -- the new

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driveway to the South and how it some employees would want to use that -- that driveway to continue to go south. So, there is some modifications to what the existing employees, how they go to and from work at the Port, but it's -- it's very similar.

So, as I explained before, we put all this information together.

We have the existing conditions, which is this count. I know the numbers are small, but I'll generalize. Everything is all in the report. But we have here, existing count and that's what we counted.

Then you have your background. That's that 2029 model, that we developed. And then we looked at phase one, two and three and then we look at -- okay, were there impacts? If there were impacts, how do we fix the roadway to mitigate those. So, then we have a mitigated count.

So, each level of service -- I won't go -- again, I won't go in to detail, but each movement at the intersection, has a level of service associated. An A, being great. An F, being failing, or close to failing. And when you're designing roads, you typically want to see a level of service

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C, or D, or better, during the peak hours because you've got to remember, this is during the peak hours. If -- you're going for A-level of service during peak hours, it means you're designing an express to -- just to serve that fifteen, twenty, thirty-minutes of the peak hour.

So, we'll see the -- the letters associated with -- with the build and you can compare them with the background. That's what we did in our report and we figured out how we -- how we can fix it and mitigate, for any of the -- any of the impact issues.

So, this was the -- the level of service table, for the morning-peak hour and then the next slide's the same exact thing, but it's the P.M.-peak hour.

So, I'll go in to what the mitigation was, to get to all those updated levels of service, after I talk a little bit more about trucks.

Given the nature of the site, we really dug in to the -- the truck volumes and truck distribution a little further, to see what -- what potential impacts the truck traffic would have.

So, for the heavy vehicles, with the

truck generation, we did the same process that we went through for the overall-traffic generation for the site. We looked at the volumes of trucks, which actually don't peak during a.m. and p.m. It makes sense. They peak more midday. Anywhere from roughly nine a.m. to one p.m., is the typical-peak for trucks.

So, we used data that was collected for the May 2018 traffic study, that was specific for trucks and we utilized those volumes and determined what the road was generating, from truck traffic and then interpreted that and extracted that out and determined how much peak-hour truck traffic we could expect, from the expansion to the Port.

So, as a result, you'll see, we looked at various segments of roadways, within the corridor. Again, we looked at the segments of

Roadways, not specifically at each one of the intersections because during these times, capacity is not really the concern. At those times, volumes are low because there's not a lot of commuter traffic. So here, we're just looking at, what are the changes in trucks, from a safety perspective, from a visual perspective, from the noise.

So, you could see, based out of proposed expansion, along these different roadway segments, we're looking at increases of anywhere from no increase at all, up to about twenty-fiveish percent increase in truck traffic, is what we're anticipating. Again, that's during that -- the peak-hour timeframe, which is between nine a -- or nine a.m. to one p.m.

So, once we've figured out, again, where these trucks -- how many trucks we can anticipate, we distribute them in that. So, we did use a different truck-distribution percentage. This percentage that we used, in the -- I'll call it the base scenario, used a similar truck distribution, to what was being distributed currently, at the Port of Albany.

So, the trucks are distributed in various -- on various roadways within that -- I won’t go through all those percentages, but they do, currently, today, branch out and use most of the roadway infrastructure, to go where they have to go.

So, there were other studies completed, regarding truck traffic in this scenario and there were -- there was mitigation proposed and

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how to minimize that and we -- our team was on -- was in line, with all those recommendations. So, we listed those and we included those within our study, as well.

But I can't take all the credit for it, you know. There were -- there were other more-detailed traffic studies that looked at the whole southern part of the city of Albany and came up with these conclusions, but some of these things were signage, restricting use of compression brakes, signage clarifying that -- which trucks should be using and not using certain roadways.

The requirements for oversized loads, need to have a plan approved by the D.O.T., before they can be allowed on the roadway. And super load, same -- same thing as the intended route and to ensure that the route was safe and acceptable and be approved by the town and New York State D.O.T.

Excuse me.

So, again, as part of this study, we knew that trucks were of high priority, I'll say, to -- to understanding their impacts. We did look, as requested by the town, to say if all the trucks that would come in from one -- one source, or use one road

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way coming in and you dump all that truck traffic that we did just recently distribute earlier in the report, as the Port is doing it today, but look at, what if it was -- all those trucks went on one route from the south, one route from the north and one route from the west. So, that's what the green and red and blue routes represent.

So, we essentially left all of the employee traffic, as is, during the peak hour. But the truck traffic will be redistributed and put it on one of these routes, as a worst-case scenario. And we went through the assessment. We also provided recommendations, as to if this was the scenario, if the green scenario occurred, what other improvements would be needed Broadway Avenue. If the blue scenario occurred, what other improvements would be needed on that network. And again, if the red scenario occurred, what other improvement would be needed?

Based on this kind of sensitivity analysis, assuming this worst-case scenario, we -- our recommendation is to use the red path shown, as the path of least impact to the environment and no mitigation is actually required, above and beyond

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what was already recommended in the -- in the study, that all the trucks went that routes. So, that's our recommended path for all trucks.

So, that route is -- if you're coming north or south, on -- on 87, if you get off and go in through Broadway and Church Street. And if you're coming off of the I-87, you can come off at Exit 23, you proceed along the I-787, with -- unrestricted again and you exit off on the slip ramps, right here, again and then make one turn, to get out of Church Street.

So, that's the -- that's the route and obviously, there's -- there's no signals during that approach. That's the reason we're -- we recommend that, as our preferred -- preferred alternative.

So, just to quickly summarize some of the other arguments within the traffic-impact study, that were completed, I won't go into too much detail. We did do a gap analysis because -- for the unsignalized intersections at State Route 144, in Glenmont, we did a signal -- signal-warrant analysis for all the unsignalized intersections within study area and determined whether or not the signal should be considered or not. And when I go to recommendations, you'll see that the signals are considered, that should be considered at a couple of the intersections.

We did look at a site-distance analysis, at the proposed driveway, on 144. And we did do a volume assessment at the ramps on 187, at the ramps that go on Exit 23, that direct traffic. These are two signalized intersections at U.S. 9W.

So, to explain that little further because I know there was a lot of confusion before, this is the interchange. A recommended truck route -- here's the toll plaza, coming off of here, getting off I-87. A recommended truck route is to proceed under these signalized ramps, and go and proceed to the slip ramps and then make a -- make a right turn and head towards the Port of Albany.

So, we did look at these two intersections and the volume of traffic that we were proposing to enter those intersections, which was employing traffic and compared them -- they are very-busy intersections today and we compared them with the amount of traffic that's on there today and we're looking at an increase of about two point two percent of traffic at that intersection -- at the in -- at

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this interchange, I should say, as a result of the site.

And if you look at historic data, the actual volume that enters at that intersection, fluctuates roughly between five percent, to thirteen percent, on a daily basis. So, if you're there on Tuesday, you might get a certain volume. If you're there on that very-next day, on a Wednesday, you may actually get ten-percent more.

So, our traffic is only fluctuating at that -- is only proposing two point two percent, which is a fraction of what the daily fluctuation is, at that intersection.

So, here are our conclusions, as it relates to the capacity analysis and our recommendations. So, I just wanted to start, that all of these conclusions, are based on the worst-case scenario, given one point one three million square foot of two-story man -- distribution warehouse and -- type facility.

So, as we go down here, we recommend some signal-timing changes. Those are fairly simply applied. But at Route 32 and South Port Road, we're talking about adding some turn lanes, upgrading the

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signal to allow some more movements at that intersection. The turn lanes would be more of a -- for phase 3. And so are the -- so are the signal improvements. But also, a real help would be to be coordinated with the other signal, which we are proposing at 144 and 32, after phase two, or around phase two.

So, after implementing all of the proposed recommended - or I should say recommended improvements within the roadway corridor, the traffic should not have any adverse impact to the environment. And as far as the truck traffic goes, the truck traffic currently in the area, is Port-related, to a certain degree -- a fraction we should say is Port-related. And then the proposed traffic added, would add a portion of more trucks on that roadway network and it's only a fraction of what’s currently out there. As I mentioned earlier, anywhere from no increase, to roughly twenty-five percent increase, during that midday timeframe.

And based on the sensitivity analysis, future truck traffic going through the -- the -- Church Street and through the existing Port of Albany, is our recommended path to minimize any truck impacts to the roadway network.

So, the next kind of portion of our traffic and truck impact study, was looking at the maritime and currently, the Port receives roughly a hundred ships or barges, per year. It's expected to grow, as Steve mentioned at the start. Business is -- is anticipated to grow, by the 2 -- 2029 timeframe. They're anticipating about two hundred and ten ships, or barges per year, or approximately four ships per week.

Based on the proposed expansion, worst-case scenario, we're looking at about twenty-one more ships, or barges per year. So, we're talking about roughly ten-percent increase in traffic, as far as barges and ships.

We also took a look at what are the facilities along Hudson River. So, we had the various number of slips, number of activity that can occur in that area. But based on this minor increase in, you know, less than -- or roughly, we're talking on average, one ship for every two weeks. We determined that the impact was minimal to -- to negligible for the maritime traffic.

Okay. For the rail, we did a similar

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-- a similar review. We looked at what traffic currently is on the rail. It's actually a significant amount. Most of it is passing through.

I won't go through all the numbers but the proposed scenario, you're looking at four to five more cars on the daily train. So you're not talking about a new train. You're talking about just more cars attached to the train that already goes to the Port, on a daily basis.

And there was this unit-trained items. We're talking about adding maybe one, or two unit trains, per month, in addition to what they're doing today. Again, a very minimal/negligible amount of increase.

For the public-transportation aspect, upped the transportation. The number-seven line does currently have a -- provide service to the Port of Albany. The Port of Albany estimates that maybe five to seven percent of the employees use other means of traffic, other than pedestrian, just driving themselves, whether that be public transportation, biking, or walking.

So, based on this, there's plenty of capacity on -- on that number-seven line, to account

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for any of of the increase associated with expansion to the Port.

On that same note, we did count pedestrian and bicycle traffic in the area -- within the study area and found in that area of the Port, there was really no Pedestrian-Bicycle traffic out there and the Port has confirmed that the amount of people that bike and walk to work, are -- are -- but it's not -- there's none doing it on a regular basis.

So, based on that, the impacts from the expansion to the Port, would not have any impact on the -- the pedestrian and bicycle capacities, or -- or the need for any -- any enhancements.

So, that being said, I'm going to pass it off to Dan, who's going to go through some of the financial aspects.

MR. STEVENS: Good evening.

My name is Dan Stevens. I'm an Economic Development Specialist. Our firm does only economic development.

Our role in this effort has been to look specifically at the economic and fiscal impacts, that are expected with this project. And so, as you can see here, we've looked specifically at the school district.

For each of the concepts, we've estimated what the future assessed value of each of these developments may be. We're anticipating that any new buildings facilities built in this property, be subject to local property taxes.

And so you see here a school district, property-tax revenues, could range fairly widely, from about three hundred and ten thousand, up to about one point six million, annually, having a lot to do with the size and nature of the facility developed on the site.

It should be noted with this analysis, we're assuming that there's full taxation and that is there's no potential property-tax incentives, or abatements model in here. This is strictly applying a -- property-tax rates, to what we think the assessed value of these concepts will be in the future.

The first table, you'll see that we looked at a variety of different fiscal-revenue streams that we would be expected of a project of this nature. County sales-tax revenue would be generated. You know, new workers on a site, receiving new pay checks, are spending a portion of that money in the local economy, in the town and the county, generated sales-tax revenue. County property-tax revenue, from the property itself and the evaluation that's there, as well as from some of the economic impacts about the county, will always generate new property-tax revenues.

We just looked at the central -- Bethlehem Central School District, and then we see the town of Bethlehem and other local property-tax revenues. And again, you know, the potential-revenue streams, in terms of property-tax revenues on an annual basis, vary pretty widely, again, going back to the nature of each concept and -- and what the value of that will be expected -- will be expected to be.

So, we're looking at, on an annual basis, anywhere from about four point seven million, to just over fourteen million combined property-tax and sales-tax revenues.

By the bottom table, we look at what we think will be the economic impact of each of these concepts. With the economic-impact analysis, we looked at jobs, earnings, and sales.

The jobs include both those that would be directly onsite, so those working at a new facility and also, those that are generated in the local economy, you know, as there's new-business activity. That activity has what we usually just call a ripple effect -- an economic-ripple effect, that spreads throughout the economy. You might know it as the multiplier effect, but it's essentially that there's economic benefit beyond that directly at the site, as new businesses on the property make purchases, as workers make purchases in the local economy. All of that starts to circulate and generate add -- additional economic benefits.

And so, what you're seeing in the chart, it is the summary of both those direct impacts, the onsite impacts, the -- the secondary ripple-effect impacts. And so, what we see would be a job-creation figure of roughly five hundred and twenty two jobs, up to over sixteen hundred new jobs. And that is specific to Albany County geography as our analysis area for this exercise.

Those would be associated with -- from forty-eight million to one hundred and fifty-three million, in annual earnings, associated with those jobs. And a total-sales impact of a hundred forty-five million to four hundred and fifty-nine million, depending on the concept. And that's each year. So, we would be talking, nearly a half billion annual economic impact, on an annual basis, to Albany County.

We did also look at some of the potential costs that may be experienced locally, new fiscal cost, with a focus on emergency-service providers. As Ashley mentioned, we've reached out to all of those. They were -- representatives were interviewed as part of this process, to understand how costs might go up, as a result of this project. So, representatives from the Bethlehem Police Departments, Suffolk Fire Department, Delmar-Bethlehem E.M.S.

The results of those conversations indicate that no substantial new cost would be incurred, as a result of this project. No new personnel would have to be hired directly as a result of this project. No new equipment. And what you see up there, are very nominal, incremental revenues associated with things like increases in traffic, you know, marginal increases in call volumes for

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emergency services and that type of thing.

So, with that, I think I will turn it back over to Steve.

MR. BOISVERT: Thank you.

Before I do a quick wrap up on the threshold, I just would like to recap Adam's discussion, regarding the truck traffic, to and from the Port. I just want to emphasize that we are recommending trucks enter and exit their Port, from either Exit 23, travel through the toll booth, stay on the slip ramp of 787, immediately get on 787 and then there's an exit specifically from the Port. Then traverse through Broadway, Church Street, traverse through the existing Port Property to exit or enter the site.

We are not proposing any truck traffic, to enter or exit from the south driveway that's currently proposed. Exiting the site for trucks will continue on the same route, through the existing Port, down Church Street, through Broadway and then if they're going northbound, there's a ramp immediately off of Broadway, on 787. Or if they're heading southbound, you cross underneath 787 and there's slip ramps to immediately get back on 787 and right directly through the toll booth.

I just wanted to make that clear, that that's what we're proposing and we do have the opportunity to enforce that, by way of leases, that the Port will enter into with any particular user proposed on the site.

So with that, the Generic Environmental Impact Statement, as I mentioned, is a hypothetical project, which we evaluate and the result is that it establishes thresholds for the various environmental components of the project, from which all future projects will be tested against. Then all future projects have to fall under these thresholds, in order for the Planning Board to approve.

So, the maximum building area, as we mentioned, is one point one three million square feet. The total area of disturbance, is sixty seven acres. The maximum wetland impact, one point four acres. The maximum trips, in the morning is four hundred and sixty-five. Evening, five twenty-nine.

As Adam mentioned, we anticipate twenty-one shipments, or barges per year. Rail cars, four to five cars. Not actually engines, but certainly cars with the cargo in it. Surface, which includes building and -- and parking, is fifty acres.

As Turner mentioned, the water demand, water in, water out, is the same. Sixteen thousand nine hundred and fifty gallons per per day.

And then these are the current heavy-industrial town bulk regulations. Minimum lot size, front and rear setbacks, etcetera. We exceed, or satisfy all the those requirements, except the sixty-foot building height, which we discussed before and we're proposing an eighty-five foot high building. Any future project will fall and meet the -- these criteria.

With that, that concludes our presentation and we -- we'd be happy to listen to any public comments.

CHAIRMAN SMOLINSKY: Thank you, Steve.

Thanks to your team for summarizing fourteen-hundred pages of a generic environmental-impact statement. That's quite a chore.

I'd like to open the floor to public comment and I'd like to start with ask -- asking for any Federal, State or Local representatives here, that would like to make a comment on this project.

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I see none.

Is there anyone who would like to make a comment on this project?

All right. Come up to the mic. Let us know who you are and give us your comment.

MR. CARREIRA: Good evening.

Jim Carreira, from Somerset Drive (phonetic spelling).

I guess my concerns are really centered around two places. The -- the construction phase, where we're going to be potentially disturbing the ash -- the coal ash that is there, which has a high content of mercury and it's a very dangerous by-product of this -- this sediment. So, you know, are there going to be sufficient protections, to protect our water supply because we're drawing from the Hudson, not too far from this location.

So, I bring to the Board's attention that the construction phase has to be viewed differently than the ongoing operation of it and I'm deeply concerned, that the remediation that is being recommended maybe sufficient, but I want you to go into much-more depth about, what is the protection that if there -- if this remediation doesn't work, or in the construction phase, there's some disaster, where this is leaching into the Hudson River and this is going in to our water supply, that's devastating.

So, what are the protections going to be, to the town's water supply?

The second part is the ongoing remediation. Are we going to be able to monitor what is coming out of this because once you disturb these fields, will we have the ability to maintain monitoring and make sure that it, again, doesn't get into our water supply?

Imagine the disaster that would occur, if there were to be a mistake and do we have a sufficient protection, with an insurance, to make sure that our community's water supply is not significantly tainted.

So, those are my concerns. Jobs, wonderful. The throughway was going to handle traffic. We -- we're lucky to have a port. But let's make sure that we protect our natural resources and don't have a devastating effect on our community.

Thank you.

CHAIRMAN SMOLINSKY: Thanks, Jim.

And don't forget to sign the sign-out

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sheet. I don't think I could spell your name correctly. So --.
MR. CARREIRA: You will soon enough.
CHAIRMAN SMOLINSKY: Okay. Anyone else?
MR. BEAL: Good evening.
My name is Jeffery Beal. I live in Glenmont and I have three separate points I'd like to make.
In reviewing the appendices, in regards to the traffic, I think it's noted and the one gentleman discussed the turn lanes, at the intersection of -- of -- the main intersection in to the port, where right now, there's no turn lanes. I think it's like 144 and South Port Road.
And I wonder if a traffic circle had been discussed there, or had been looked at.
I know, you know, living in Glenmont, the town is looking in installing the circle there, at the -- kind of intersection of all development and so, I wonder if a circle will be more appropriate at that intersection, rather than a light and a turn lane because that facilitates the greater flow of traffic and might be a little bit easier to traverse,

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especially now, there's going to be more traffic.

Secondly, I think that this -- the new proposed entrance from the south, is very tricky. I'm driving that road every day, multiple times get from work, and back up to Albany. It's a very-busy road.

And when you're travelling Southbound on 144, or River Road, that is already a relatively blind turn. You're crossing over the railroad tracks, you're going downhill. You know, the speed limit is fifty-five miles an hour, so you're kind of -- the road does like a zigzag, you're going downhill around the Port. It's already a blind turn and now, there will be a new unsignalized-type intersection that's there.

So, I can foresee you fly down the street, you're trying to get home, and someone's trying to make that left turn onto the new site and you're just going to fly in to the back of them. And also, for people to come out, to make a right turn out of the new intersection, it's going to be a challenge to see the traffic that's coming around.

The third point I'd like to make, is for the -- the -- the intersections that were studied in the traffic study, along that corridor. I think at -- the most-south intersection, is that of 144 and Exit 22. The next up from there is Clapper Road and then it goes all the way up to Glenmont.

And the missed intersection there, is the intersection of 144 and Wemple Road (phonetic spelling), which is already a very-tricky intersection. The town, on multiple occasions, has commented on the uniqueness of that intersection and I think in this scenario, with a, you know and hundreds of additional workers that would potentially be coming along 144, that the fact that you are missing the traffic-impact study at the intersection of Wemple and 144, is absolutely critical, be that it is already coming up that road. It makes a wide split and connects to Wemple, hang a -- a -- there's two sections there. It's one -- there's a house there at corner.

It's already not wide enough. And every year in the town budget, that is one of the items that's noted in the traffic -- or in the budget section that's kind of postponed, that we don’t have the money to deal with this, with that intersection.

So now, this potential development in

the town, the town has known that that's a concern and this intersection was not part of the study. I think it's an absolutely critical failure because it is already -- living and travelling on that, it's very challenging to make a left, or a right out of there.

There is a storage location that's up a hill and even when you're making -- you're travelling northbound on 144, making a left onto Wemple there, you know, it's a -- like drop off. You can't even see it.

You know, that intersection, I think, you know, would -- I would propose would be more utilized than Clapper Road because Clapper is much less developed and is a curvier-road connection over to 9W, whereas Wemple is much faster. There's already an existing warehouse facility on Wemple and there's another one currently in construction, that this Board gave a zoning variance to. So that street is seeing increased development and it should -- this Board should require that that intersection is also part of this traffic study.

CHAIRMAN SMOLINSKY: Thank you.

MR. BEAL: Thank you.

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See you next time.

MS. BEELER: Good evening.

Patti Beeler, 30 Delaware Drive.

Traffic continues to be a concern, on a number of the issues in development matters, that we often come and speak to you about. Thank you for allowing us the opportunity, as always, to speak.

Something that I feel strongly about, in addition to the points that the gentleman who spoke just before me made, is the amount of traffic on the 9W North merge, on to 787, where if the truck drivers listen to the instructions to stay on 787, to get on to the Port of Albany, that -- if you're driving in that area, which I do almost every single day at high-traffic times, you're driving north, you get on the ramp to get on to 787. The traffic is flying out from the thruway and the Port merge is just to the right.

Every day, there are tremendous numbers of close calls and it's not that I want the trucks directed to go on to 9W, or the other routes, but I think you've some pretty serious traffic issues there. And I didn't see or hear anything mentioned, on how that particular area, if the traffic study was done there. If it hasn't been, I think it needs to be.

Thank you very much.

CHAIRMAN SMOLINSKY: Thank you, Patti.

Anyone else?

Board members. Brian?

MR. GYORY: What exactly are you asking?

CHAIRMAN SMOLINSKY: Your comments to the Applicant.

MR. GYORY: Okay. First of all, will this presentation -- this has not been seen before. Will this be made public and will this be submitted to Board members?

MR. BOISVERT: Yes.

It is public. It's part of the public record.

MR. GYORY: Okay. It just hasn’t -- has it been upload -- I don’t --.

MR. BOISVERT: No.

Mr. GYORY: Okay.

MR. SWEENEY: We can -- we can upload it.

MR. GYORY: Can it be uploaded?

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MR. SWEENEY: Yeah.
We have the -- the agenda and everything.
MS. AIEZZA: Well, I think a couple of the tables --.
MR. SWEENEY: We can upload it to the agenda and --.
MS. AIEZZA: Yeah.
I think the -- those tables weren't in the report, right?
MR. GYORY: The threshold tables, like these are new to us, I believe.
MR. SWEENEY: This --.
MS. AIEZZA: Right. Right.
MR. GYORY: See, I never really saw it
CHAIRMAN SMOLINSKY: Steve, could you
use the
mic, please?
MR. BOISVERT: I'm sorry.
Steve Boisvert from McFarland Johnson.
You're correct. These proposed project thresholds, are not on the recorder, simply because we haven't going to show you the entire process. Something could change, which could change

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this. These are the current proposed thresholds.

The final thresholds will be appended to the F.E.I.S. data report --

MS. AIEZZA: Yeah.

It's just --

MR. BOISVERT: -- minus these.

MS. AIEZZA: -- a helpful summary, that would --

MR. BOISVERT: Sure.

MS. AIEZZA: -- help with the --

MR. BOISVERT: Yeah.

MS. AIEZZA: -- report.

MR. GYORY: Yeah.

Great. Thank you.

So, other kind of thoughts, going down the list, I've mentioned this at every meeting, previous, but we talked about great infrastructure and I don’t -- Turner, I don't know if it's your topic of expertise here.

It was also mentioned, in terms of the environmental impacts that you have the fly ash and capping off the site, potentially. So, is -- I assume these are in blind system that will have no surface infiltration. Can you confirm that and step

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to the mic?

MR. BRADFORD: Yeah.

That is correct, sir.

There is no proposed infiltration. In this case, the bio-retention will filter through media, essentially, that is constructed. And then there will be an underdrain that it will take it back out. So, the goal is to separate those two things, the fly ash with the -- and what we'll do, being on site.

MR. GYORY: But will there be some sort of liner -- would -- would there need to be some sort of liner proposed between the two layers, or would it just be the underdrain, that you're separating it?

MR. SWEENEY: Potentially. Yeah. Yes?

MR. BRADFORD: Yes.

MR. SWEENEY: Yes.

MR. BRADFORD: There will be a liner underneath what we are doing, to keep what we're doing from getting down into --

MR. GYORY: Right.

MR. BRADFORD: -- the coal ash.

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MR. GYORY: So, that might helpful, in the next iteration of the report, just to kind of identify how that would work and just mention that that is what had happened.

MS. AIEZZA: Sure.

MR. GYORY: I know we talk about sewer service and the capacity. I think that's very helpful. That's new information, I think, since last night, so thank you for bringing that up.

In terms of traffic, I'm a bit confused, in terms of -- I think that, you know, a member of the public mentioned a new intersection. I think that's exactly why these public hearings are so important because this obviously is something we had overlooked. So, I think that that will be very helpful to have additional information about that intersection because the gentleman made a great point, that Clapper Road is not as easy to navigate, from 144 to 9W, whereas Wemple Road would be a lot easier, to get from one point to the other.

So, I think that -- I'm not sure if -- I think the more important question, how do we get that intersection added in to be looked at? The -- and that's not the purpose of this meeting this

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evening, so what -- what is the -- kind of the next step, to make sure that it gets added?

CHAIRMAN SMOLINSKY: Your -- your comment is now part of the public record, regarding that, just as the gentleman's comment was regarding that intersection and the need for it to be analyzed.

It's a substantive comment that they'll have to review, respond to in a comment response and if further study's warranted, for that -- to answer that comment, that will be appended to the F.G.E.I.S., as a -- as a report and then that will be evaluated by the Board, when it's submitted. And that it's been done appropriately.

MR. GYORY: Yeah.

Perfect. Thank you.

So, thank you for comment. I think that would be very helpful to hear more information about that.

You know what? In terms of the other information about the truck traffic, can you at least explain, sort of how -- I know you said there's leasing agreements. Like how -- how will the truck traffic actually go that route and how -- how will that be enforced, other than just, you know, legal document?

MR. BOISVERT: Other than a legal document?

So, during the lease negotiations, just like -- I've had a lot of past experience over thirty years, building shopping centers, particularly for Wal-Mart, and there are designated truck routes, from which those drivers have to drive, in order to get from the highway system to the stores. And if there's a violation of that, by way of a common way from the resident to the town, then that driver is again, corrective action is taken, to make sure that they take the prescribed truck route.

So, in the lease -- we would offer and recommend that the prescribed truck route that we are recommending now, get built in to the lease and those companies that reside at this property, will tell their truck drivers, this is the way you enter and exit the property.

MR. GYORY: And that would be for truck traffic -- and -- that would be every amount of traffic, except for cars? Like in terms of --

MR. BOISVERT: Correct.

MR. GYORY: -- deliveries of

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machinery, through deliveries of parts, deliveries of food for -- if they went cafeteria, everything --
MR. BOISVERT: Every --
MR. GYORY: -- other than --
MR. BOISVERT: -- semi tractor-trailer, is considered a -- a truck, would use those routes that we are prescribing.
MR. GYORY: What about like the -- box truck that's made a delivery --
MR. BOISVERT: A single --
MR. GYORY: -- right to the site --
MR. BOISVERT: -- single axle --
MR. GYORY: -- of the --?
MR. BOISVERT: -- or dual axle and FedEx, or U.P.S.?
MR. GYORY: Correct.
Is that considered truck traffic?
MR. BOISVERT: It -- it's not.
It's considered as part of the -- the car traffic.
MS. AIEZZA: So -- so if -- and I want -- Brian, first of all, we're on the same topic. You're asked -- asked everything on the same --
CHAIRMAN SMOLINSKY: Stay right on

that plane.
MS. AIEZZA: -- topic. And then revisit the topic. Okay.
MR. GYORY: Okay. So, I can -- that's interesting. I haven't heard of this before.
So, is that also how the current Port operates, in terms of their current traffic?
And that may be more of a question for the Court to answer.
MR. BOISVERT: I'm not aware of that. We will research that and get back to you on that.
MR. GYORY: Okay. I would be curious, you know, for some more information about how -- how the Port currently operates, if this would be a new way of dealing with trucks, or this is the -- the -- the current way that it's being done.
MR. BOISVERT: It's -- the proposed way is going to be done for this expansion project, on the eighty acres.
MR. GYORY: Right.
And I was looking for more documentation or information, about how it's currently being done and if this is the same route, or different -- different than --?

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BY MR. BOISVERT: I'll have to get back to you on that.

MR. GYORY: Yeah. Perfect.

Another point that just came up this evening, in my opinion, is the -- the bike network. So, there were -- it looked like some charts that -- kind of how no pedestrians, or bikes, were using the facilities.

But has this project, or have your -- has your team looked at the south-end connector, which is connecting the current trail along the Hudson River, with the rail trail that goes from the city of Albany, to Voorheesville?

I know there's a proposed connector, that literally goes in the same exact route, as your truck route. So, I'm just curious, if you've -- if -- if that's known and if you evaluated that because that is the proposed route that the city is looking at, I believe, to connect those two systems.

MR. BOISVERT: Okay. So, we -- we can further expand upon, in the F.E.I.S., regarding the bike route, but we are saying that this particular project will not generate any bicycle, or pedestrian traffic. The folks that are going to work on the eighty acres, will not commute there, by walking, or bike. They will use either their own vehicle, or public transportation.

MR. GYORY: Right.

MR. BOISVERT: So --.

MR. GYORY: But what I'm saying, is there's a proposed connector from the city of Albany to the north, through this -- the truck route and through the -- this -- the exit, whatever you're calling it there, along 787, to along Route 32, to the end of the -- along the river -- Hudson rail trail.

So, it's not necessarily that these -- the people coming and going to your site, but there's an existing traffic flow of bikes and pedestrians, that your truck route is directly next to and I think we need to kind of evaluate that.

MR. BOISVERT: Okay. We will do that.

MR. GYORY: Yeah.

And then the study you mentioned as the -- thank you. This was really helpful to go through. I really appreciate it.

You mentioned in here, about the fire department and it should be noted, that the

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department has an existing truck, but depending on the exact height and footprint of future development, a new larger truck may be necessary.
Do you know -- I'm not sure if you've talked to them or not, but at that time, did you know about the eighty-five foot building height, or -- and is the fire department aware of what the proposed maximum threshold of eighty-five foot building height is?
MR. BOISVERT: So I --
MR. GYORY: And can they handle that?
STEVEN BOISVERT: -- I can answer the second part.
Yes, they are aware of it and we are currently trying to confirm that they can handle the proposed project at one point point million square feet--.
MR. GYORY: Great.
MR. BOISVERT: So, they -- they are aware of it. They're waiting for documentation, that they can service the project.
MR. GYORY: And that update of information would -- would be in the final document?
MR. BOISVERT: Yes. Correct.

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MR. GYORY: Great.

All right. And than I think the other question I had on traffic, was just kind of reiterating something that a member of public raised, about the onramp to 787 from 9W and if the majority of truck traffic -- or truck route is 787, then specifically looking at that onramp from 9W. Obviously, it's important and how do we kind of document, I guess, what the capacity of that truck route is, if you had additional trucks going -- I know you indicated that it would potentially be a different time, but it would be interesting to kind of see some more information about how -- how that interaction works.

So, I think before, we were looking just at the intersection. But that intersection, I think, specifically, if that's the truck route, we need further details on how all aspects of that intersection will work, not just the concept of it.

MR. BOISVERT: And -- and the merging --

MR. GYORY: Correct.

The merging --

MR. BOISVERT: -- with --

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MR. GYORY: -- from --

MR. BOISVERT: -- the --

MR. GYORY: -- 9W.

MR. BOISVERT: -- the traffic there?

MR. GYORY: Yeah.

MR. BOISVERT: Okay.

MR. GYORY: To -- to get onto 787.

STEVE BOISVERT: Okay. We'll take a look at that.

MR. GYORY: And I think that is all I have today.

I know I mentioned some in an email that had gone to you and there may be some follow-up, after --.

MR. BOISVERT: Thank you.

MS. LOMBARDO: Okay. All right. I'll start with the traffic.

Just from the truck -- I understand you recommended a route, but I have a couple of questions to ask.

One, is there any upgrades to the Port roads recommended? I mean, that's not an easy route to -- to leave through the Port, from one end to the other, to get to Church Street. It doesn't seem

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realistic of, you know, for trucks wanting to go that way.

MR. BOISVERT: We can certainly address that.

And if you ask -- the Port currently has a fifteen, or sixteen million dollar improvement project, which includes upgrading their roads --

MS. AIEZZA: New side roads.

MR. BOISVERT: -- on the existing --

MS. AIEZZA: Okay.

MR. BOISVERT: -- site.

MS. AIEZZA: Okay. If we could definitely address that because I think that makes that more realistic because I think the current condition doesn't really --

MR. BOISVERT: Yes.

Their -- the project --

MS. AIEZZA: -- that -- those --.

MR. BOISVERT: -- is currently in design phase. Yeah.

MS. AIEZZA: Okay.

MR. BOISVERT: Uh-huh.

MS. AIEZZA: And then you keep saying recommending, that you're going to recommend that route.

I would ask and I don't know if this is -- I mean, how we don’t just recommend, but we ensure because otherwise, there's a huge increase for -- well, it's potential twenty percent that could go by and that's a neighborhood, you know, where I -- I would think has already been impacted by a lot of trucks and I think they're on the table, from what I can tell, would be heavily-impacted, if we didn't make sure that that traffic was routed to the Port.

So, I understand through leases, but I'm wondering, from us and if it's a recommendation in the lease --.

CHAIRMAN SMOLINSKY: We can certainly impose a condition, as part of the findings, if we adopt, that will require that -- leases to be to -- be handled accordingly, or the --

MS. AIEZZA: Yeah.

CHAIRMAN SMOLINSKY: -- trucks to be routed accordingly. And we can also look at other options --

MS. AIEZZA: Okay.

CHAIRMAN SMOLINSKY: -- that might be available to us, as we go through the process.

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MS. AIEZZA: Okay. And I'd also be interested in some kind of enforcement. I know we rely on people to call, but some other proactive way of ensuring people are following the leases, as opposed to exact -- people may not know where those trucks come from. There's a lot of trucks that go down that road. So, people aren't going to know where they're coming from, or who to call, to know that lease is like that.

So, some other proactive way of enforcing that, I'd be interested in.

MR. BOISVERT: Okay. We'll -- we'll put some thought to that.

MS. AIEZZA: Okay.

MR. BOISVERT: Okay.

MS. AIEZZA: Let's see.

Also, on the rail, I was wondering if there is a rail-staging area of tracks behind that as well and I was wondering what this rail increase would have, in impact there. I believe it's a shared track. I think it's C.P. and C.S.X. I'm not sure.

I know the Port owns it, but I'm not sure if it's the Port’s staging area. But I'd like those tracks specifically addressed and any impacts

of those just because they are behind the housing development. It's a -- they're --
CHAIRMAN SMOLINSKY: So, the --?
MS. AIEZZA: -- they build and --
CHAIRMAN SMOLINSKY: Not -- the Port --
MS. AIEZZA: -- take down the cars.
CHAIRMAN SMOLINSKY: -- does own the yard.
Are you referring to, I guess the western-most tracks, that are C.S.X.?
MS. AIEZZA: They're -- it's a combined --.
UNIDENTIFIED SPEAKER: It's not even a --.
MS. AIEZZA: I thought you owned the land that the tracks are on. UNIDENTIFIED SPEAKER: No. No.
CHAIRMAN SMOLINSKY: Okay. I was corrected.
The -- I think what you're talking about is western-most tracks. The Port does not own those.
MS. AIEZZA: Okay. The tracks?

Right.

UNIDENTIFIED SPEAKER: They're --.

MS. AIEZZA: Okay. Because my understanding, if there was the -- okay. You must land -- own the land right past it, if there was some way to move it or expand it, then it would have to be on Port property.

Okay. So, you would have no impact on those tracks? If that can just be pointed out, specifically, just because those trucks are an area of concern, also, just because they're --

MR. BOISVERT: Sure.

MS. AIEZZA: -- behind the housing development.

MR. BOISVERT: Okay.

MS. AIEZZA: So, you could say that you're increase in the amount of traffic isn't going to impact those tracks --

MR. BOISVERT: Correct.

MS. AIEZZA: -- at that staging area.

Okay. For the -- and actually, along those lines, I don't know that the D.E.C. has provided comments yet, but I'm not sure if they have said anything about -- I think you're outside, technically, environmental-just area, but if they've actually asked about following that, or involving that neighborhood in the public-outreach program. Have hey commented on that, or has any --

MR. BOISVERT: So, they have provided their comments and I actually just actually received them, I think Friday, so I haven't read them --

MS. AIEZZA: Okay.

MR. BOISVERT: -- thoroughly, but -- do you recall?

MS. AIEZZA: I'd be interested in addressing that. I know it's maybe right outside the zone, but because that's a potentially-interested area and they do have a pretty-well organized neighborhood group, in the City Council, to look at the -- the environmental justice policy because you know, I don't know that we have to follow it, but to address it in someway, to -- for public notice in that area and in that housing development.

MR. BOISVERT: Okay.

MS. AIEZZA: All right. Then you know, that table would be helpful because I think -- although your concept plan is a worse-case area for certain things, actually a smaller building could actually be a worse case for a truck, if that became a truck staging, or a warehouse facility. A smaller footprint could be a worst-case scenario, potentially for trucks, if you had more way of, you know, storage areas, and lay-down areas and so forth.

So, I think it's important it has a separate haul out, for the truck.

MR. BOISVERT: Sure.

MS. AIEZZA: So, I think that that's covered that.

MR. BOISVERT: Okay.

MS. AIEZZA: But I don't necessarily think, you know, that concept could not be worst case, potentially, for trucking. If it was a, you know, materials import and export area, that's -- that --.

MR. BOISVERT: Okay. Well, we'll --.

MS. AIEZZA: But that's why I think the table's important because it calls out the truck assumption separately --

MR. BOISVERT: Correct. Okay.

MS. AIEZZA: -- from -- from the -- it's separate than a foot -- the square footage of a warehouse.

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I just want to reiterate to at -- Wemple, that was a miss on our part, when we were looking at the intersections. That's an important intersection we looked at, 144 and Wemple and also, the intersection that ran to 787 because there's no yielding and that definitely there. So, that's my way, too, from there.

And then the fly ash, are you guys working with D.E.C.? Have you involved D.E.C.? Are you doing -- I mean, that would have to be handled under -- it's Part 375 D.E.C. Program. So, what's the status of that?

MR. BOISVERT: So, we are working with the D.E.C. and they --

MS. AIEZZA: Okay.

MR. BOISVERT: -- have commented on it, but the actual permitting and soil-management plan, will not be implemented until there's a specific -- a specific project.

MS. AIEZZA: So, that's a --.

MR. BOISVERT: There's no need for that.

MS. AIEZZA: Right.

But who's going to be a responsible

party with the D.E.C.? The person doing the project, or the Port?

MR. BOISVERT: So, the Port right now, is anticipating that most likely, they will own the land. So, they will --

MS. AIEZZA: Right.

MR. BOISVERT: -- handle that. In concert with any potential tenant and tenants' specific-project needs.

MS. AIEZZA: Okay.

MR. BOISVERT: So, I don't know, right now, who will actually be the Permittee, whether it'll be either the end user -- probably, most-likely the end user.

MS. AIEZZA: And you'll have to go through the R.I. --

MR. BOISVERT: Sure.

MS. AIEZZA: -- then you'll have to do the whole -- yeah. Okay.

MR. BOISVERT: Oh. Sure.

MS. AIEZZA: So, I just want to make sure -- that should be spelled out because you guys talk about handling it, but I think it would be better, if it's in the document that's under a -- a program with the D.E.C. and it would be D.E.C. oversight approval, under the 375 or -- or the remedial program.

MR. BOISVERT: We'll expand on what you said --

MS. AIEZZA: Okay.

MR. BOISVERT: -- when you asked --.

MS. AIEZZA: Because I think that's important and the -- and groundwater impacts and lining, all that would be handled under that program and --

MR. BOISVERT: Correct.

MS. AIEZZA: -- I think that would take care of the whole fly ash.

MR. BOISVERT: We'll expand on that.

CHAIRMAN SMOLINSKY: The reference to the D.E.C. regs and -- and --

MS. AIEZZA: Yeah.

CHAIRMAN SMOLINSKY: -- and --

MS. AIEZZA: That was the --.

CHAIRMAN SMOLINSKY: -- is really important --

MS. AIEZZA: -- 375 --

CHAIRMAN SMOLINSKY: -- that --.

MS. AIEZZA: -- was the approved document of the oversight. It doesn't necessarily need to be. I mean, I think they'd get a ground filter, if it's with a program.

MR. BOISVERT: Okay.

MS. AIEZZA: And I think that might be it for this.

I mean, I have some other comments that I'll send along, but I think these -- this kind of covers the major issues, just from your presentation.

Oh. One other question.

I know that the Port is technically tax exempt, when they own the property and I guess this is a common -- I -- and I did see that you talked about that in your report.

How does that work? So, only the impacted area would be subject to property tax from the lease -- the person leasing, not the property as a whole? Or how does that relationship work, since the Port's exempt, like the person leasing?

MR. BOISVERT: We -- we can expand on that, but right now, the Port is anticipating entering in to ground lease with --

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MS. AIEZZA: Okay.
MR. BOISVERT: -- any perspective tenant. So, any vertical construction --
MS. AIEZZA: Okay.
MR. BOISVERT: -- would be subject to tax.
MS. AIEZZA: But that's it, right? Just the vertical construction building? It's not like a whole -- the property tax, or it would depend on what's constructed at the end?
MR. BOISVERT: Correct.
MS. AIEZZA: Yeah. Okay.
CHAIRMAN SMOLINSKY: The value of the buildings.
MS. AIEZZA: Right.
And then is that -- so, there's other options for leases, that would not have that because they could -- there are properties in the Port, that could, essentially, not be subject to the same kinds of taxes, right? There are different type -- types of those agreements?
MR. BOISVERT: We have to get back to you on that.
MS. AIEZZA: Okay.

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MR. BOISVERT: I -- I didn't alter --

MS. AIEZZA: Because again --

MR. BOISVERT: -- this --.

MS. AIEZZA: -- this would be another thing, as far as our approval, if we're approving it based upon the assumption of a certain type of lease, that that gets guaranteed because I think there's different types of leases, potentially, that have tax implications, when that properties are --?

CHAIRMAN SMOLINSKY: Yeah.

MS. AIEZZA: So, if this --.

CHAIRMAN SMOLINSKY: I -- I think that -- the -- the assumption's underlined, that the analysis showing the tax revenue should be dated and specified and any impacts that -- that if there's a different scenario that's --

MS. AIEZZA: Right.

CHAIRMAN SMOLINSKY: -- implemented, that would affect that tax revenue, that should be addressed.

MS. AIEZZA: Right.

Or potential different scenario.

MR. BOISVERT: Are you suggesting that now, or when a specific project comes forward?

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MS. AIEZZA: I would say --.

CHAIRMAN SMOLINSKY: I think we're --.

MS. AIEZZA: Yeah.

CHAIRMAN SMOLINSKY: My recommendation to the Board would be now --

MS. AIEZZA: Yeah.

CHAIRMAN SMOLINSKY: -- so that --

MS. AIEZZA: Yeah.

CHAIRMAN SMOLINSKY: -- the -- you can evaluated the veracity of the -- the -- the --

MS. AIEZZA: Right.

CHAIRMAN SMOLINSKY: -- fiscal impacts -- positive fiscal impacts that are --

MS. AIEZZA: Uh-huh.

CHAIRMAN SMOLINSKY: -- going to be implemented.

GIANNA AIEZZA: Right.

Versus the most-conservative, non, you know, worst-case impacts, depending on different types of agreements. So, just to cover the gambit of possibilities and what kind of agreements they can enter in to, in the tax applications.

MR. BOISVERT: Okay.

MS. AIEZZA: Okay. Thanks.

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CHAIRMAN SMOLINSKY: Scott?

MR. LEWENDON: I may have some comments, as a result of the presentation, but I'll put them in writing and get it to you before September 14th.

Great. Thank you.

CHAIRMAN SMOLINSKY: Thank you, Scott.

I also have provided comments on a dozen or so sections, earlier. I think I heard some things tonight that would cause me to go back and take a look at certain sections, again.

Comment period is open till September 14th. So anyone, including Board members, has an opportunity to add to the comments.

At this point, I'm --.

MR. GYORY: Sorry.

Can I just have one other question?

Is the Port, the existing Port Road, a city -- or a -- like a city -- a municipally-owned road, or right of way, or is it the -- the -- the cut route is through the -- that Port Road?

MR. BOISVERT: So, South Port Road is a town road.

The remainder of the truck route

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through the Port, is actually city roads.

MR. GYORY: Okay.

MR. BOISVERT: City-owned roads.

MR. GYORY: So, it's normal right of way?

I didn't know --

MR. BOISVERT: Correct.

MR. GYORY: -- if the Port was physically owned by us.

MR. BOISVERT: It's all -=-

MR. GYORY: Thank you.

MR. BOISVERT: -- public access. Yeah.

CHAIRMAN SMOLINSKY: Okay. Can I have a motion to close the public hearing.

MR. SWEENY: So moved.

MR. LEWENDON: Second.

CHAIRMAN SMOLINSKY: All in Favor?

BOARD: Aye.

CHAIRMAN SMOLINSKY: Aye.

A couple of next steps, I'll go through very quickly.

Common period is open till September 14th, as I said. The Applicant has heard -- has gotten written comments, heard the verbal comments. Their job is to now evaluate those comments, make adjustments, or changes to the analysis that the -- they've done.

And Planning Department and our T.D.E. will review the next draft that they put together and ultimately provide an F.G.I.S. to this Board for our consideration, somewhere further down the line.

The -- the tentative schedule -- SEQRA would say that the F.G.I.S. is considered forty-five days after the public hearing. It's also a time period that can be waived, depending on the circumstance. We heard some fairly-complicated comments tonight, that may take time to respond to. We don't know yet. But at some point, we'll be asking the Applicant what the schedule looks like, considering the comments that they've heard and the responses that they need to -- to make.

On that note, can I have a motion to table the Port Expansion Project.

MS. AIEZZA: So moved.

MR. SWEENEY: Second.

CHAIRMAN SMOLINSKY: All in favor?

BOARD: Aye.

CHAIRMAN SMOLINSKY: Thank you very much.

(The meeting adjourned.)

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STATE OF NEW YORK

I, KATHERINE WOLLEBEN, do hereby certify that the foregoing was reported by me, in the cause, at the time and place, as stated in the caption hereto, at Page 1 hereof; that the foregoing typewritten transcription consisting of pages 1 through 110, is a true record of all proceedings had at the hearing.

IN WITNESS WHEREOF, I have hereunto subscribed my name, this the 26th day of September 2019.

KATHERINE WOLLEBEN, Reporter

## A

## I

**J**

CITY OF ALBANY COUNTY OF ALBANY

*****************************************************
ALBANY PORT DISTRICT COMMISSION'S PORT
PROPOSED EXPANSION PROJECT
*****************************************************

THE STENOGRAPHIC MINUTES of the above entitled Public Meeting by NANCY L. STRANG, a Shorthand Reporter commencing on January 6, 2020 at 5:30 p.m. at Albany Housing Authority, 200 South Pearl Street, Albany, New York

PRESENT:

Steven M. Boisvert, PE, McFarland Johnson
Ashley A. Erdmann, PE, McFarland Johnson
Richard Hendrick, CEO, Port of Albany
Aaron Mair
Aoelene Smith
Megan Daly, Director of Economic Development and Procurement, Port of Albany
Jim Freeman
Jesenia Alcantar
Wendy Dwyer
Tom McPheeters
Willie White
Eaaiyah Haggray

MR. HENDRICK: Good evening, ladies and gentlemen. My name is Rich Hendrick. I'm the CEO of the Port of Albany.

Before we get started, I would like to first give a thank you to Steve Longo in the Albany County Housing Authority for assisting us in setting up this public meeting to brief you on our future expansion plans.

As we begin tonight with our presentation of our plan for future growth, tonight is an informational meeting where we are making or seeking your comments on our project. You may have heard some of the information that has been going around about the project. It is an expansion of the Port in the Town of Bethlehem on 80 acres of land along the river.

We want to present our plans tonight to you and hear directly from you any comments that you have about the project. What we hope to accomplish tonight is to set aside any fears that this project is going to majorly impact your health or your quality of life here in the south end. We want to establish an open and transparent communication with you and your neighbors – our neighbors. We seek input on this expansion project and you will hear tonight that this is the first of two or three public meetings that will follow this as we go along with the expansion.

The Town of Bethlehem Planning Board is in the process of reviewing our generic environmental impact statement. From the generic impact statement, we hope to move forward with a positive project at which time once we have identified the project, we would come back to the neighbors and present that to them. As I said, this is a generic presentation.

Some of you may have heard about in the past, but we want to brief you again on what we are doing in our presentation to the Town of Bethlehem. We have made a best case environmental impact and a potential worst-case so that we didn't pull any bait and switch with the Town Planning Board as to what our actual projects were going to be.

Once we have a generic approval, as I said, we will be able to identify – which we do not have anyone currently under contract. We are very aware of how valuable your time is in attending public hearings. We want you to go away with something that is solid as to the outcome of the meeting. The one thing that you will come away with tonight is that this project is not going to negatively impact your way of life and your health. We are 100% behind you with that. We have a great working relationship with the representatives from the city and making sure that everybody is included.

You will find ultimately in this meeting tonight the potential for well-paying jobs moving forward in the future.

We have members of the Town of Bethlehem Planning Board here tonight. We have Planning Board staff and we have your new representative to the City Council, Sonia Frederick here.

Sonia, thank you very much for attending.

This is, I think, our first public meeting and you'll have to excuse her because she gets to go to her second public meeting in about an hour as the Common Council meets tonight.

Moving forward, we have Megan Daly who is the Director of Economic Development for the Port. Megan will give you a little bit of an overview and about how we brought our Engineering Director from McFarland Johnson; Steve Boisvert and Ashley Erdmann.

You will hear from Steve as to where the project is and what the project means. For those of you who don't want to publicly comment, we are affording business cards for you so you can address a question on a business card that will then be answered and considered in your final environmental impact.

MR. MAIR: I see a stenographer here and I take it you are representing in good faith.

There are no handouts for the community. Are there handouts or documentation for this meeting? In order for people to meaningfully participate, do we have something beyond what we have heard?

MR. HENDRICK: Everything that we have presented to the Town of Bethlehem Planning Board is on their website. We can give you the information as to where to go on that website. That will give you all of the information. The two books upfront on the table here with volumes of paper refer to each study that was done and are available. I believe the whole thing is completely on the website.

MR. MAIR: But for the record, for this meeting, we have a stenographer here and granted it is in Bethlehem.

But in terms of the environment, air does not stay in the same place. We have an estuary that moves from place to place.

For the record for tonight, residents here in Albany north of the project do not have any documents and we will have to go to website in order to be informed to comment at this meeting.

MS. DALY: The binders have been made available here as well as under physical locations and it will remain here.

MR. MAIR: What I'm saying is that as a person who has developed outreach, I am a founder of the Environmental Injustice movement and one of the things I work on is meeting participation. One of the problems with low income communities – – this is a problem and an issue with regards to information – – this is not being available for communities that do not have information desks. While there may be physically a document here, the due diligence and outreach is also abundant in the environmental injustice area. This information should be readily available and made available especially in these impact communities such as this. I'm just saying for the record that I want to make sure the for the record it's there. I am assuming that this is part of when the DEC reviews this they're going to say yes, you checked the box on a number of community meetings but we want to make sure the community meeting here and folks here understand for the record that nothing is available physically for folks.

MS. BOISVERT: I just want to verify that the notice that went out to inform everybody of this meeting informed everybody that those two documents – those two rePorts were here.

MR. MAIR: That's diminimous. I hear you. That's diminimous. That's the minimum that any corporate entity would have to do. You're dealing with an environmental injustice community and DEC gives good guidance of how to do community engagement involvement – – absolutely, sending out legal notices to various publications, media forum, etcetera, but that is absolutely diminimous. As folks know, vigorous outreach should be done to make sure folks in these impacted communities have access to information. All I am saying is that there is a deficiency.

MS. DALY: This is what I would say. I hear you and I think that's important. If you wouldn't mind, as we go through this and the presentation and take a look at this, maybe we can revisit this as a comment –

MR. MAIR: I'm going to say it on the front end because speak or forever hold your peace. I want to make sure that the public and the record has it.

MS. DALY: What I was just going to say, to finish, is that I would love it at the end if you would say: what I wish that I had – was it this PowerPoint or was it the goal to have it in other locations because we would like to do that.

MR. MAIR: I wish that you would have read the EEC'S EJ impact area –

MR. HENDRICK: The normal process for DEC is not during the generic, but an actual project and we are trying to meet the public here to just bring them up to speed on a generic application that we have to the Town Planning Board and that we intend, as we move forward, have two or three more meetings where we will identify projects and then fully engage the community on what that project will be so that we can again get their input.

MS. SMITH: I think the issue is that you continue to act as if you don't understand what the concern is. To say that this is just a generic piece or whatever - the bottom line is people that will be affected need to be in it from day one. It's not fair that you bring us something after the fact and say oh, we have done this, this and this and this is what we are proposing. That's the issue. You can go back and forth all night as to what you plan on doing, but the issue wasn't done from the jump. It's just out of respect. People are asking to always be conscious and cognitive of the fact that – look in the room. Are they all here? Are the people that live in this community, people that are present in this room – how are they going to get the information other than when you feel like it? I think you should just keep that in mind as you go forward.

MR. HENDRICK: This is a brief agenda of what we plan tonight. There will be an introduction by the Port of Albany and many people know what the Port is and as I said, we are expanding into the Town of Bethlehem so that we can bring more economy to the region. We have had studies done; opPortunities for job development, workforce development. With the footprint that we had and the size of the Port – it has not changed since 1929 when it was developed under New York State Law.

We have seen an opPortunity to purchase 80 acres of land so that we can build for the future.

The project presentation – as I said, Steve Boisvert is from McFarlane Johnson who will brief you on what the project is and is intended. From there we will have public comments. As I said, if somebody doesn't want to ask a question tonight, we’re more than happy to have the questions written down where they will get addressed and brought to the attention of the Town of Bethlehem Planning Board.

MS. DALY: So, I am Megan Daly and I am the Director of Economic Development and Procurement for the Port of Albany.

Before we get into the specifics of the project, I just wanted to take the opPortunity to give a little bit more information about the Port of Albany itself, its background and some of the activities that are going on right now.

Just to give a little bit of context, the Port of Albany is a year-round Port facility. It is currently consists of 400 acres in three municipalities. It dates back to the 1920’s when it was authorized by legislation of the State of New York. That being said, it is an independent organization that is governed by the Albany Port District Commission that is led by a board.

One of the main missions of the Port of Albany is actually to contribute to the economic development and the economy of the capital region of upstate New York and beyond. So, that is part of the role that plays in what we do every day, but it also is a part of the driving force of the Port project that we’re going to talk about and the intention that is here. The intention is to provide positive economic contributions by providing jobs, services and the commerce that happens at the Port. That is the goal here.

The most recent economic impact assessment that was done for the Port – – it is about 400 acres. It includes roughly 25 business tenants. About 25% of the land area is for maritime activities, so it is facing water and it has 60 to 100 trips per year with cargo including molasses and paper pulp. The last assessment was that among the local activities, there is roughly 1,400 jobs in the district and that it contributes to 45 new jobs statewide. The goal of the expansion is to grow upon that. It is to create more jobs and more economic opPortunity.

MR. FREEMAN: How many of those jobs will be on the south end?

MR. DALY: That an excellent question. Quite frankly, I can't answer the specific number. We do know that there are a number of jobs among different businesses among the Port administration, but the exact number I don't have. What I am hoping that you will ask and I'm hoping that we will work on together moving forward is how many new job opPortunities could be facing the south end of the City of Albany and Albany County.

So, everything that's highlighted in yellow is the Albany Port District Commission. The reason that we indicate this is to show not only the Port holdings and where the jurisdiction of the Port is, but to be aware that in the district there is other commerce activities that are not even highlighted. So, we've highlighted them here. They are not the jurisdiction of the Port. They are contributors or partners or activities that happen nearby. So, we want it to be aware that the context of some of these things that may come up or some of the activities we can answer – some of them are simply neighbors. *Currently at the Port in the maritime area we have been undertaking a major maritime infrastructure investment plan for the last 2 to 3 years. We have been investing in up to $50 million in new maritime infrastructure investments. That overall plan is intended to last another two years. That has six project components. It includes a brand-new warehouse for big lifting activity that has been constructed and is in use; the wharf reconstruction and another maritime shed will be constructed starting next year and then other security maritime improvements. Some of these improvements are upgrading facilities that have not been approved since the Port was first constructed in the 20's and 30's. This is to point out just the current activity that is going on and this will go on top of that.

At the inside of the new warehouse that was recently constructed there are deliveries of paper pulp for big lift project activities that happens in there. That's one of the projects that I mentioned.

This is a visual of what the new projects could be (Indicating). Again, I want to stress, as Rich had mentioned, this is a possibility. This is not a plan but this was to get a visual to people that may say what are we talking about here? We're talking about the concepts that have been proposed and what it could be. The zoning allows for different commercial activity. The goal is to attract a brand-new industry that quite frankly is new to the United States with offshore rent. What that means is: the manufacturing assembly component parts related to offshore wind supply chains. So, you're not going to see an offshore wind turbine in the water. You would see commerce activity related to the supply chain that would happen in the ocean off the coast of the United States. This is a major economic opportunity right now that's facing all of the Northeast of the United States. We want to capture this for the region and for the state.

So again, it is a visual.

As part of the process that we have been undertaking so far, we are required to do a number of different feasibility impact assessments. Steve and the team will talk about the specifics when I turn that over. One of the biggest opportunities is the economic impact that could be possible if a project here is realized. How it was assessed was based on the different concepts that you will see; from basic warehouse distribution, basic commerce activity which is in the range of concept C, all the way to the right which is concept D and D1 which is in the offshore wind activity. So, what it did was assess how much the new construction could afford in terms of new jobs, how much investment, how many construction jobs versus permanent jobs; what is the potential for this?

Going back to it, that gentlemen had said about the jobs – I'm hoping this is a pivoting point of how can we face this in the south end, in the city, in the county region. If it is in fact focused on offshore wind, the job potential at its greatest is over 1,600.jobs. The annual economic impact is in the hundreds of millions of dollars on an annual basis. You'll see below what is related to construction on top of the business activity jobs that could be there. These are estimates based on the potential construction that could happen there. This, to me, is exciting in terms of an opportunity. We would like to make sure that the project, as it could be developed and as it could be approved, would be positive in working well with its surroundings and upstate New York to help achieve these numbers. That's the goal of what talking about the specifics are.

At this point, I'm going to turn it to Steve and his team. I just wanted to reiterate and you have heard from Rich – – this will be part of our conversation – our contact information is here. There is an avenue to comment on this here tonight. They will be marked possibilities for this in the future. This is a generic. After this, if we get through this process and it is approved, we need to do more processes. We need to come back again. So, this is only the start.

With that, I will turn it over to Steve.

MR. BOISVERT:  Thank you, Megan.

I'm Steve Boisvert with McFarlane Johnson. We are the consulting engineers for this project.

What I would like to start with is a locational idea of where the project is. You can see on the graphic that it is roughly 1.7 miles north and west – your community is north and west of the project.

The property comprises approximately 80 acres. Primarily, 77 acres or so reside south of the Normanskill. You can see traveling west to the National Grid power lines.

As we discussed to this point, this project has a generic environmental impact statement and that the Port has not identified a specific tenant or specific building at this time.

The project is being proposed instead with five different concept plans relating from an offshore wind potential assembly manufacturing plant up to a two-story 1.1 million square-foot distribution center. SEQRA allows the process to create a generic environmental impact statement in conceptual terms in addressing that generic project on its cumulative impact on the community. So, what that means is we talked about already that this is just the very first step in several steps that will occur before a project is deemed to begin to be in construction. After we get through this generic environmental impact statement process, the Port will identify a specific project and building and then we'll come back in front of this community and discuss the specifics of that project and solicit questions and input as that project is being developed and approved to the Town of Bethlehem. Again, this is just the first of several meetings that we intend on having in this community on this project.

So, I will walk through the five different concepts. We will start with the smallest to the largest. But the largest project being the actual project that is a combination of all the small project impacts created – it is called a worst-case scenario.

So, the smallest project is considered a light assembly facility of roughly about 160,000 square feet that will have a 1,280 foot wharf and a large area specifically for offshore wind. All the concepts you will notice will have access from the north with a vehicle and a rail bridge crossing the Normanskill and an access to the south portion of the project tying in River Road.

There is also the utility easement that has been granted to the Port for connection to the Town of Bethlehem water main. It is roughly in this area on the property (Indicating). So, this is the smallest concept. I will walk you through all four.

This is a larger one of about a 580,000 square feet facility that will be earmarked more for offshore wind manufacturing, as well as the associated parking and lay-down area.

The next concept veers away from offshore wind and focuses on the property being developed in its current way that the Port operates which is several properties; several tenants in a warehouse distribution community. So, this particular scenario has roughly four buildings ranging in size from

160,000 square feet up to 240,000 square feet, roughly 800,000 square feet of total warehouse distribution. The difference here is that there will be 3 to 4 different buildings on two or three separate parcels.

The next concept is a single tenant with roughly 800,000 square feet, again, of warehouse distribution. So, instead of having multitenant buildings and multitenant facilities, it will be a single tenant occupying the entire site.

What we did is we took all of the impacts from almost four different concepts and took the worst-case scenario and created what we are calling Concept A which is the concept that contains the 1.1 million square feet of distribution, the wharf, the associated access points for both vehicle and rail. That is the concept plan that we are studying and detail to determine what the environmental impacts would be on the entire community.

This is just a summary of all the various concepts. You can see that concept 2A is a two-story all the way down to concept D1 which is the smallest of 160,000.

So, this is the project that we went forward with the draft environmental impact statement and the subsequent supplemental generic environmental impact statement that specifically addressed all the impacts of this project on your community.

So, what we will do now is walk through all of the various documents which we discussed that are sitting on the table.

The very first document, the larger one, is a full draft generic environmental impact statement that addressed everything from traffic, to drainage to wetlands. Then, we prepared a supplemental impact statement specifically how the project impacts your community. Both documents have been made available at various locations, including here at the Housing Authority.

The reports, especially the supplemental, is detailed and what was evaluated is shown on the table of contents on the screen. We touched upon everything from the alternatives considered to traffic, drainage and every environmental impact that was discussed that would potentially create an issue.

With the Town Planning Board and their consultant, they determined that the following topics on the screen do not affect this community. So, I will walk through them very quickly.

The water service for the project will be provided by the Town of Bethlehem. Therefore, it will not have an impact in your community.

Sanitary sewer will be provided on-site with a private sanitary sewer treatment plant. Historical or cultural resources were evaluated on the 80 acres and it was determined that there is no impact. Therefore, there is no impact to your community.

Aesthetic and visual resources were studied and a very detailed visual impact analysis was prepared and determined that the project cannot be seen from your community and therefore there is no impact.

Land use and zoning – the Town is currently zoned as heavy industrial. The proposed use is in concert with that zoning. Therefore, there is no impact.

Community character – as I mentioned, the Town zoned this as heavy industrial use and they planned on industrial use on this property as part of the comprehensive plan.

Emergency services will be provided by the Town of Bethlehem personnel. Therefore, it will not impact of this community's emergency services that are provided by the city.

School district – the project is located in the Town of Bethlehem school district and it has no impact to recreational space.

With that, it was determined that the potential impact to air could be an impact to air quality. You are very much familiar with air quality studies in this area for some time now. Their latest report issued in October of last year identified 10 actions from which should be implemented as to how to reduce the impact of air quality. Out of those 10, the Port will be an active participant in implementing the following annexed items that they have control over for this expansion project.

The first action item is coordinating with the voluntary rerouting of personal entities in the south end. You will hear in a few minutes that we are committing that no new truck traffic will enter on South Pearl Street as a result of this project.

One of the items that is identified in bold is: working with the New York State DOT to reclassify the roads within the Port, to create a specific truck route through the Port to again avoid having trucks travel through South Pearl Street, through your neighborhood.

With that, I will specifically go through the truck routes that are being proposed as part of this project. *The first route cuts through all the Port roads. Trucks entering and exiting the facility travel down Normanskill which is a Town road and enter Bradt Street and continue down Smith Boulevard and then out Church Street which ties into 787 going west or north.

Another truck route would allow trucks to enter that want to travel south and make a left on South Port Road and make a left onto River Road. They will pivot by way of signage and no trucks will be allowed to make a right onto South Pearl Street.

The proposed project may add one or two train engines and four or five cars per month. However, if the project develops as we hope with offshore wind, both truck traffic and rail traffic will significantly reduce.

MS. ALCANTAR: To your last point saying that trucks and rail would be decreased – is that as of now or what is currently happening, or is that a worst-case scenario?

MR. BOISVERT: For the worst-case scenario in our traffic impact study for that specific 1.1 million square-foot project, if the project property is developed for an offshore wind tenant, the numbers that are in our report will be significantly lower because the need for trucks is not there if the property is for an offshore wind supply chain company.

MR. MAIR: What about air monitoring? Trucks are basically a proxy for HiP 2.5 diesel particulate emissions. So, while you may alter your route, the emissions are still within this area and they may rise.

Air, as a medium - it doesn't stay on any street. It goes up and it can spread and adds to the air shed and it has already burned HiP 2.5. So, has there been an analysis of on one of your worst-case scenarios you have for tenants and they are having an increased volume traffic and you may alleviate the road burden and the risk of kids being hit by traffic, but you still have added to the poor quality – poor air quality obtained in one area etcetera. Has that been modeled in your analysis? Transportation road hazards and safety are one issue. The other trucks in additional train traffic is idling diesel engines and that a mission is going to add to the already polluted air cloud that already sits over the south end during peak ozone days during the summer which will make it significantly worse. So, you're actually doing a lot of pm 2.5 loading as well as sulfur dioxide as well as aromatic hydrocarbons that will be emitted from these tracks. Has that been added to your modeling, in essence, of air pollution contaminants?

MR. BOISVERT: What we can say is the existing scenario will be a future in punitive effort to reduce. What we are saying here is the specific expansion project will not add to impacting your quality. Having trucks run out and around -

MR. MAIER: That's a driving problem. This is a science of physics. And again thermodynamics of heat during the summer with self rising particulates and polyaromatic hydrocarbons are known as a contributor. That's why they have the laws that regard buses and what have you. So, even though the trucks are off-site, they are. The point of the matter is what is the wind direction for southerly winds? What does that mean? That means the wins come out of the south and they blow north. So, if you've got a wind pattern that's going south and blowing north – peak emissions where kids are off during the summer. Their playgrounds are right here. So, what you have is increasing the potential for again pm 2.5 that will increase, irrespective of the fact that more trucks, irregardless of their route, are still adding to the pm 2.5 particulates right now. So, the issue you're having is cumulative and it can add to impacts. Even though the traffic may be mitigated, the point of the matter is you're still loading significant air pollutants which is a huge issue. It's a huge issue with the trains. The issue is pollution loading through the air. So, that study is an impact and that's a question that the community needs to have taken into consideration.

MR. BOISVERT: That's a great question and we will record your comment and address it.

MS. SMITH: How many jobs did you say earlier you are hoping to create with this?

MR. BOISVERT: Roughly 1,600

MS. SMITH: So, if you are creating 1,600 jobs, how do you only have four or five cars coming in?

MR. BOISVERT: Train cars – those are trains.

MS. SMITH: So, you may have 1,600 passenger cars in regards to 1,600 extra jobs being created.

MR. BOISVERT: So, the job creation number was generated by industry standards. It has no relation whatsoever to the traffic impact study that we have prepared. The traffic impact study analyzes the peak hour which equates to be commuter time in the morning and commuter time in the evening. It is nowhere near 1,600 vehicle trips.

MS. SMITH: I don't think I understand that. I don't always understand this stuff. If 1,600 people come to work -

MR. BOISVERT: But they're working different shifts.

MS. SMITH: If there are 1,600 people coming to work in there are 1,600 people going home during peak hours -

MR. BOISVERT: So, 1,600 jobs would be over a 24-hour period. Most of these types of manufacturers have three shifts. There are three 8-hour shifts. So, 1,600 jobs are not all coming in at once at 7 o'clock in the morning. A shift that starts at 8 o'clock or there may be a shift that starts at 5 o'clock.

MS. SMITH: So, in other words there could be 1,600 extra vehicles in a 24-hour period going one way which in a 24-hour period could mean 32-something extra cars in a 24-hour period passing. It would be 3,200 extra vehicles going through South Pearl Street every day because it is shiftwork.

MR. BOISVERT: It's not 3,200. It is 1,600 potentially.

MS. SMITH: But it's in a 24-hour period.

MS. MAIER: She's talking bidirectional trips, which makes sense. It's not that there are 1,600 jobs but they come and go. So, each car is basically a trip – that's times two. So the load within a 24-hour period -

MR. BOISVERT: Again, that's what we analyzed. All of the vehicles will not all be on South Pearl Street. Vehicles are distributed throughout the whole network.

So, you can see on the screen now the 11 intersections that we studied. You can see how it surrounds the project site which is highlighted in yellow. So, what will happen is for employees – they will get distributed to exit and enter the property either to the south driveway that I mentioned and these will take care of all of the employees that will travel to the site from the south. We will also have an access point here (Indicating) on Church Street to enter the Port. So, any folks that work north or west will travel 787 and will exit at the Port -

MS. FREDERICK: So, you're saying people that are employed there – since they won't be coming by -

MR. BOISVERT: The employees will be coming in throughout the roadway system.

I just want to clarify one thing. The traffic impact study was analyzed as pursuant to New York State DOT industry standards which address just the peak hours. That is the morning commute from 6:00 a.m to 8:00 a.m.in the morning and the evening commute would be 4 o'clock to 6 o'clock. Those are the two time periods the traffic impact study studied at the 11 intersections surrounding the property. So, the employees that work on the property will travel to and from the property from their homes and will be distributed all throughout the roadway network and various cars will travel down South Pearl Street except for the folks that may live here - it will travel a different way to the property (Indicating).

MS. DWYER: I do have a question. Is this going to be on some type of bus route?

That leads into my second question because – how are you going to be reaching out to different organizations to help people get employment? I think there should be a study to go through your ledgers to figure out who lives where and how many people are already employed from the south end in the City of Albany. How is this going to be properly distributed – the community that is being impacted.

MR. BOISVERT: It's a very good question about the bus route. So, we will take that comment to heart and work with CDTC and see if we can extend a bus route to this property.

The other question with regard to advertising for potential jobs on the property. As I mentioned, once a project is identified with a specific company that wants to build the project on this land, we will be back in front of you prior to that project being built and will be able to share that particular company's employment initiatives.

MS. DWYER: So, is there some type of requisite for them in order for them to obtain that job to employ the people from the community?

So let's say there's a construction company and in order for us to give you this job, you have to have an X-amount of people from the community to build. Afterwards, what's going to be the standard? Are you then going to reach out? What type of job training will you be providing? What type of professional development can actually happen within the community? Will you be reaching out to the community colleges, the high schools and things of that sort?

MS. DALY: I honestly love that question. I love this topic. I'm hoping that we focus on this because I think there are huge opportunities.

We have already talked with some of the employment centers. We've had conversations with community colleges. We have looked at other models that say for example industrial development agencies will use in terms of hiring for jobs that are posted at a workforce investment board or job center or locations in the south end that includes training and other things like that. We are currently looking at that. It's the right time to be looking at it too, because as we do this type of studying, we are starting to get to where actual business developments would be in the next couple of years. So, that is a goal and that is something that we would like to include and help as to how to include that outreach.

Some of it would be Port work that would either be construction or some of it may be work in terms of maritime incentives that would be a part of the Port. Some of it may be direct private activity that would be a tenant and that would be something that will be part of developing this project.

MS. BOISVERT: So, as I previously mentioned, we are committing that no trucks will travel on South Pearl Street. So, this is the recommended truck route that I described earlier (Indicating). Trucks leaving the site will have the ability to stay on and basically travel on the existing city streets through the Port property or make a left at South Port Road and make a left on River Road and therefore eliminating any truck traffic on South Pearl. So, we do want you to take away the information on this slide, regardless of what project moves forward. We are committed tonight that we will eliminate any new trucks generated from this project that would travel on South Pearl Street.

How we going to enforce that?

The Port has committed that all leases with companies that will reside in this property to have a clause in such that they will require their delivery trucks to travel on the two routes that I just explained. There will be a written description of the route as well as a map that will he clearly shown that will require the trucks to travel to and from the property. In their lease there will be a provision such that if there are six violations, they will be in breach of contract. If a breach in contract occurs, we will move forward with action.

We are going to add to the extensive surveillance cameras that are tied to the Ports security system by adding a new camera at the intersection of Normanskill Street and South Pearl Street. Those cameras are tied to the Port security system and personnel and also the Police Department. There are cameras that exist at the intersection of South Pearl and South Port Road. In addition to the leases, we will install extensive truck route signage that you're probably very familiar with.

This is a blow-up of what will occur (Indicating). You can see that a new camera will be installed here (Indicating) that will monitor trucks making this left and there is already an existing camera here to make sure the trucks for this project will travel south on River Road.

In addition, the Port has committed to comply with the four strategies that CDTC outlined in their 2018 study of following long-term strategies to reduce the amount of trucks on South Pearl Street.

The very first was determined by the ownership of the roadways throughout the Port. That has been done.

The next stop was to designate the roads throughout the corridor as federal aid eligible and the Port will work with the DEC and the city to accomplish that. These roads are designated as federal aid eligible which allows for the Port to apply in concert with the city to improve the roads throughout the Port and actually make it more attractive for trucks to use that route than any other route.

Strategy three was to seek funding to design and construct the roads throughout the Port and make them more accessible and more inviting for trucks. That is an ongoing process.

The Port very recently received a grant to improve Smith Boulevard and we are constructing this plan for later this year or early next year.*The last strategy was once all of the roads are improved throughout the truck routes, it is to solicit FHWA to consider the route as a federal freight priority network.

This is just an overview of the road improvement that will occur, as I just mentioned. This is Smith Boulevard. There was a little S-curve in this section of Smith Boulevard and it was in the way of a building. The building has since been demolished and it is designed to straighten out that road and improve it for truck access in that is currently in their design.

This section of Normanskill Street is a Town road in this will be extended in concert with the project where a new bridge crosses over Normanskill. So, two sections of the Port on-site roadway truck route will be improved within the next year or year and a half.

As Meghan mentioned, there is a huge economic impact as a result of this project. This particular slide just outlines the total impact for County and all the taxing jurisdictions that you're going to see impact to the community. The total ranges from $13 million to $14.2 million.

This is impact to the county (Indicating) and it's anywhere from $6.5 million to $10.2 million.

Meghan touched upon jobs already. You can see that the total economic impact ranges from $295 million to $459 million for the offshore wind component. So, there are a lot of reasons for sustainable and renewable – there's a huge economic impact to attract the offshore wind company.

This is just a summary of all of the information with regard to the project and the proposed mitigation and what we're doing for the climate and air that we already talked about. It just recaps that other parts of the project will have no impact upon your community and they are related to the Town of Bethlehem.

With that we would like to open up for questions. As has been previously mentioned, if you're not comfortable asking a question in you want to write it down, we do have cards in the back in a box. Please ask your question and put it in the box on the way out or you can email questions to the email address on the screen.

This is part of a public review process. This is not the end. You still have the opportunity to submit written comments by mailing them to the address on the screen or emailing them by the January 17 date.

This is just the first of three. We have to come back before we even put a shovel into the ground, once we identify a project.

With that, I would just ask you for the stenographer to state your name before you ask a question and then we will just go from there.

MR. MCPHEETERS: My name is Tom McPheeters; M-C-P-H-E-E-T-E-R-S.

First of all I just want to clarify one thing. This hearing is the direct results of the New York State Attorney General's office objecting to the Town of Bethlehem's Planning Board's approval of the SEQRA process early on. The Attorney General's office said that you have not considered the fact that this is an Environmental Injustice community and you need to go back and reconsider. That is why we are here. This process is the one where decisions are made about whether this project can go forward or not.

I'm glad that there will be more opportunities to have dialogue. I think we need that. This is the one that counts. So, let's be clear about that.

Secondly, I think it's really an exciting development that lot of potential jobs are potentially coming to the south end. This is one of the best opportunities that we've seen in a long time here.

I am sure that there are also people here from the unions who think the new jobs will be great as well. I want to say for the record that I think when you can't breach a faith in the south end, if the Port of Albany were to negatively impact the neighborhood with the unions and either begin the construction of these new buildings and more importantly for the jobs without first having a strong driven community in the South and which is well-prepared to negotiate jobs. So, that needs to come first. I think it's important to do that and get that out of the way so others understand were we're coming from.

I'm a resident of the south end. I've been working with a village for five years to help discern the health issues that people were complaining about. I'm so glad the people here came out.

I'm acutely aware that this is an ongoing health issue or a health crisis who live in the south end. The question is going to be: is the mitigation enough?

The major decision has been made and pursued and that's to reroute the truck traffic through the Port of Albany and I have some specific questions on that.

Will the trucks go through the Port and pick up 787 to the Thruway. They are about 500 feet from the people who live on the hillside and Ezra Prentice. It's not as if you are far away.

Aaron Maier, I think, laid this case out very clearly. The information that I read, we are still dealing with, at its peak, the additional truck traffic which is something like 100 trucks per hour going to those core roads. That's in addition to the 1,000 trucks a day they go through South Pearl and they would also be going to that Port. That's going to be a really busy road. Also, it's going to be a slow road because there are a dozen or so railroad crossings.

I just want to second what Mr. Maier said that this is something that needs more studying. Even if all of these mitigations take place and in so far all we have is the promise to reduce the trucks and that is a promise at this point because we don't know where the money is coming from. I would like to hear more about that.

We have a promise to put air conditioning in a few of the buildings. Not all of them.

We have a promise for the Health Department to do an outreach to help people with their ongoing health issues, as well as other respiratory diseases and so on. We have those promises.

The playground needs to be moved up the hill or someplace else so kids are not playing next to that road or next to the railroad tracks or next to the sewage treatment plant or next to where all those trucks are going to go. More trees could be planted. Barriers could be considered.

The question is: will all of those potential mitigation measures - is that enough? We don't have the answer to that.

One thing we don't know is what the cost of all of the mitigation measures are. At some point, this community needs to be thinking about moving Ezra Prentice somewhere safe. That is not impossible. That takes a lot of political will. DEC did a study. The State Health Department did a study. The city did their part and the county has weighed in and said we will help with the health issues and so on. We haven't heard from the governor. He is my neighbor now. I think that needs to be at least on the table.

We need to consider the real alternative that would make a difference to people's lives at Ezra Prentice and that is to move Ezra Prentice and there are options available and the community is ready to talk about it. So, I just want to leave that on the table.

I do have a couple of quick questions. What is the anticipated cost of connecting the Beacon island and fixing all the roads up? Where's the funding coming from for that? Where's the timeline on that? What do you do about all those railroad crossings? How does that work? Are some of the trucks going to stop? These are all questions that I would like to see inserted in the response. You don't necessarily have to do it now. Thank you.

MR. FREEMAN:  Jim Freeman again.

Nowhere in this have I seen staying ahead of the curve and greening the Port of Albany. All these buildings – will there be solar panels on these buildings? Will there be alternative energy with a much cleaner process? The Port is completely antiquated and there are all these opportunities that I am not seeing addressed at all. So, can you explain that at all?

MR. BOISVERT:  Is your question related to the existing Port buildings?

MR. FREEMAN:  That too, but mostly the new construction. No place in these conceptual drawings are there solar panels. Seriously, the whole place is antiquated. You have an opportunity here in the Port of Albany to really modernize it and make a big difference including possibly electrifying the south end with renewable energy. Instead of the pollution you're putting out daily that kills people, you can have state-of-the-art and have a model for the whole United States. You have that opportunity.

MR. BOISVERT: That's a very good point and you're absolutely correct. In our draft environmental impact statement we say that we will encourage the companies that want to build here to consider renewable energy such as solar on the roof, or what have you.

We also will encourage facilities to build with a LEED certification for all renewable products and material used during the construction process. So, your point is very well taken and you're absolutely correct. When we get a specific tenant, we will have more detailed discussions. Again, we will bring that back in front of you to discuss the specifics of that project.

MR. FREEMAN: Thank you.

MR. WHITE: Hi, my name is Willie White and I just want to talk about some things that I have observed over the years. In Ezra - I have family members who have lived there. They are back with me today.

I sit here and hear some brilliant minds. I think there are brilliant minds in here. We are talking about how do we keep human habitation in an industrial area. Those two don't go together. Have we considered – – I know that you guys know all this stuff but there are 200 children down at Ezra Prentice who have to breathe this air every single day. So, what I'm hearing – take it out of their front yard and put in their backyard and everything is okay. It's not okay. We have families that live down there. There is a history of cancer at Ezra Prentice - of people dying.

Dr. King talked about gradualism. There are small incremental steps being made, but it never happens. It's a promise. That's what it is.

This is a community of color. They are people of color that live at Ezra Prentice. I guarantee you that if there was a different community there would be more of an urgency to move the people from Ezra Prentice. Ultimately, you can put all the Band-Aids you want on Ezra Prentice. It's not going to fix your problem. It is an industrial area. It's not going to fix the problem. It's not fit for human habitation. We need to do better.

I see some smirks on some faces around here who are saying oh, forget about that. You know what? You don't live down there. There are people down there that are sick. We have to do better. We have to stop putting a Band-Aid on this problem and fix the problem. Move Ezra Prentice. Thank you.

MS. HAGGRAY: My name is Eaaiyah Haggray. As a former committee member, I don't live down at Ezra Prentice but I know folks who still lives there. I'm not sure what Albany Housing is doing. I'm not sure what HUD is doing, but they haven't done what they were supposed to do. They knew this was an industrial area. It was formerly an Irish area before it was transformed into a community for Afro-Americans.

As community members, we took our time and came up with solutions to this problem. Instead of coming up with an alternative plan that diverts traffic away from this community, we came up together as a community and said all right, we are removing these people regardless.

We've got access to new home buyers program. We've got access to trades. We have access to all of these things that you guys can come together with us and help us remove these people from this area. They don't have places to go, but they have homes that can be redeveloped within this community with the home buyer programs where these families can go. So, instead of coming up with money to fix roads and divert traffic, use that money to help these families get out of there. They are not supposed to be there, period. So, it's not just advocating, we are moving people who live down there. The whole community has to be involved because they're not supposed to be living on top of that and they are living on top of the landfill. Nobody knows that.

There used to be gas stations right where those houses are. There are still gas tanks underneath those complexes. The water lines for those complexes are old. These are issues. Asbestos was found in the buildings when they were removing that property. That still exists.

There are more things than traffic. The houses are not developed in a way where dust in the air quality – they can escape it. These issues are derived from a whole list of problems that is outside of just air quality in traffic.

You have to come together with us in removing these people and you don't have to do all of this diverting and repaving. You can go forward with your plan and leave that area as an industrial area as it once was and eliminate the whole problem in solving the issues of Ezra Prentice at the same time.

So, I'm not sure what Albany Housing is doing. I'm not sure what HUD is doing. I'm not sure they came up with a plan to remove these people but we as members of the community – we did it ourselves and we came up with this plan and as a community we are cooperating with one another to remove these families, regardless. We are not waiting on Albany Housing. We are not waiting on the City of Albany. Were not waiting on the Mayor. Were not waiting on anybody. We went over and started doing it. So, if you could help us with that, I think that should be more of the focus so you can move forward with your plans without all of that lash and all of the comments coming back about expanding this project that you're going to do. I'm not sure if that's the goal or the focus of the project but renewable energy – that's great. We need to help these families get out. They do not belong there. They have to be removed.

MS. MAIER: Again I want to add some additional comments. I think they have long known that the community has been walled and put in the back of the bus.

In short, yes, this is a result of the

Attorney General. It is always the pressure and power of folks who are above and not an Attorney General of color but these issues are being flagged because in these types of meetings people are speaking up and saying these things need to be looked at because they have been long neglected or papered over.

In the case of relocating, there are opportunities. We talked about this with the oil firms and the bomb threats.

There are 23 acres that are sitting up there by the Harriman Campus owned by the city. This project by the Port authority can arrange a bond to buy out the land at the Port and use the revenue to basically purchase that land and rebuild that 20+ acres that is right up on the Harriman Campus and solve a number of problems. It puts the community in close access to Hannaford, Price Chopper and actually better access to better food and better quality. The best recreation in the city is Westland Hills and some of the best schools will be removed from the unequal treatment of the community.

This is an issue of justice. We talked about environmental injustice. Specifically we talked about people protection under the law. As the sister said, when it comes to people of color, we'rer the wrong complexion for protection. We want equal protection under the law.

White folks did not have to run up and do what they had to do in Hoosick Falls. They rang the alarm. They rang the bell. The national government all the way down to the state went up there to preserve their property values and make sure that they had water piped at to their homes and made infiltrations. They are testing the population. They didn't have to have volunteers to come in. They do it ad hoc. Basically when there's a white community at risk, they bring all the emergency dollars and come in as gangbusters.

When it is a community of color, it's like a scene from the movie Blazing Saddles. The one black man who circles the whole wagon to defend itself.

The long and short of it is this: This is a specific project and what needs to happen is south end NGO's and community organizations need to be at the table. It's not only just about what the community needs but even if this project is the best use for this land, this is a public authority. It's supposed to operate in the interest – not of the private sector, but a whole community. It should be bringing jobs to not one sector of the population, but give opportunity to all.

Yes, I'm a union worker and a very big on project labor agreements, but the unions in the capital region have to be some of the most restrictive and most racist with regard to a community of color. People who are even in the trades – minority contractors – – many of them are still without union cards. That's a damn shame. I know people who are the son of the son of their wife. They get their trade card and there in the union. So, the issues are privilege and access. In fact, there should be no project labor agreement unless there is a dialogue with the contractors so they are fast tracked and added to the list for jobs. It's enough to talk about jobs and opportunity when you don't provide a job and opportunity, but you are providing the risk and exposure.

All I'm saying is yes, we're going to respond here. Yes, some of us will send notes to the Attorney General. This process is woefully inadequate. It's lacking. For the community to understand and say well, the housing department – – you have to understand each of these government agencies and their authorities and their roll.

But the Housing Authority can ask for and what the members appointed to that board – sit down and negotiate a good faith decision for a dollar amount for that land up on the Harriman Campus and do the just and deserved thing. Care about the people. Don't listen to those folks uptown that say well, don't put the poor people in my backyard. Listen, we've been dealing with Pitney for a long time. Pitney was put in the black people's backyards. We got the bomb trains. We've got the most risk and the most exposure and right now it's about justice.

We talked about the diverse equity inclusion. You now must include the people of the south end and the actions and the treatments must be just. I ask the Town of Bethlehem and I asked the Port authority to be just. Reach out to those of us who you know. Reach out and bring us all to the table to say how to resolve this? Thank you.

MR. BOISVERT: Anyone else?

(There was no response.)

Thank you very much. Again, if you have additional questions, please send an email or letter with the contact information on the screen. Also if you prefer, right your question on the index card in the back and drop it in the box. Thank you and we will inform you of our next meeting.

(Whereas the above entitled matter was concluded at 7:15 p.m.)

CERTIFICATION

I, NANCY L. STRANG, Shorthand Reporter and Notary Public in and for the State of New York, hereby CERTIFY that the record taken by me at the time and place noted in the heading hereof is a true and accurate transcript of same, to the best of my ability and belief.

Dated: 1.17.20 Nancy L Strang

NANCY L. STRANG
LEGAL TRANSCRIPTION
2420 TROY SCHENECTADY RD.
NISKAYUNA, NY 12309

# APPENDIX L

# SUPPLEMENTAL TRAFFIC ATTACHMENTS

## 3.0 Traffic Assessment

Trip Generation

Trip generation determines the quantity of traffic expected to travel to and from a given site. The Institute of Transportation Engineers' (ITE) *Trip Generation*, 9th Edition, is the industry standard used for estimating trip generation for proposed land uses based on data collected at similar uses. Since the tenants for the site are currently unknown, the exact mix of passenger and heavy vehicle traffic at the site cannot be determined; however, generally peak hour trips occurring during commuter travel periods to and from light industrial sites are primarily passenger vehicle trips rather than heavy vehicle trips. Trip generation for the proposed project was estimated using land use code (LUC) 110 for General Light Industrial. Table 2 summarizes the trip generation estimate for the AM and PM peak hours which includes both passenger vehicles and heavy vehicles.

**Table 2 – Trip Generation Summary**

| General Light Industrial | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | Enter | Exit | Total | Enter | Exit | Total |
| Trips | 97 | 13 | 110 | 10 | 74 | 84 |

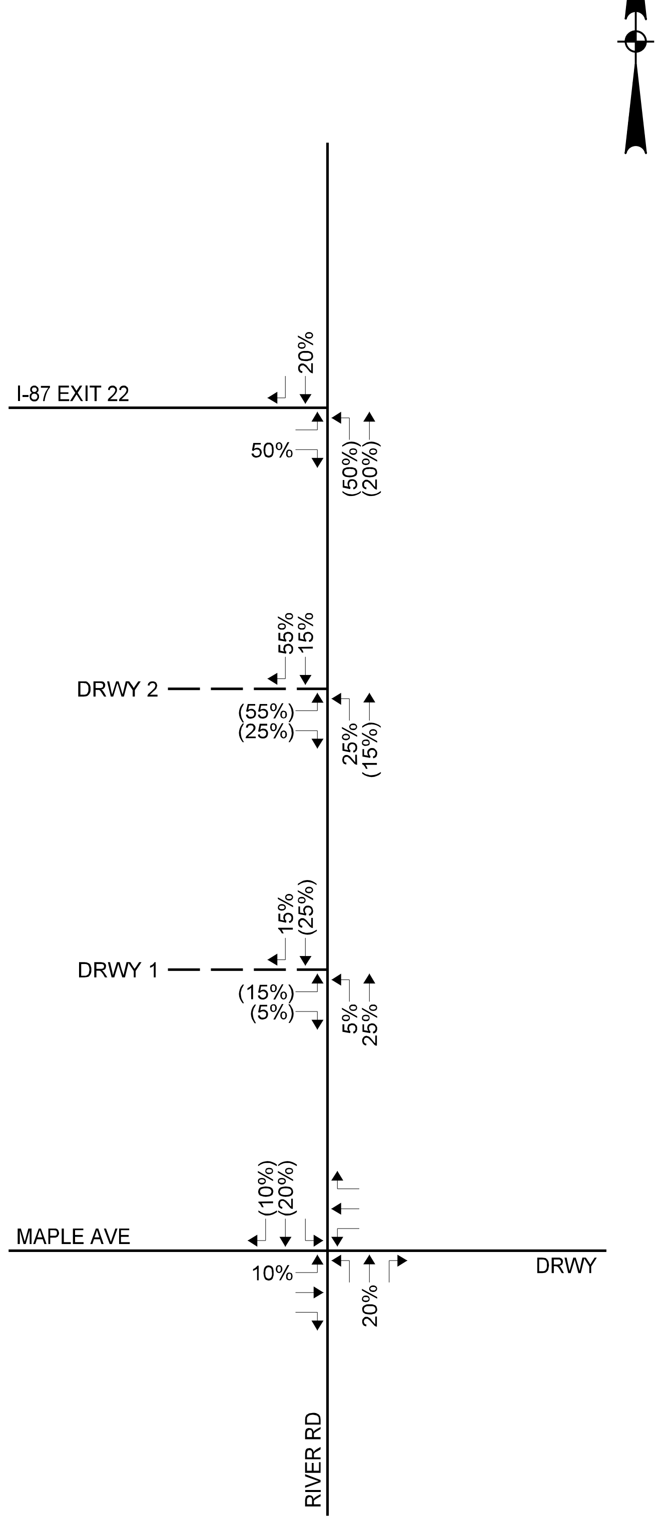
Table 2 shows that the site will generate 110 new vehicle trips during the AM peak hour (97 entering and 13 exiting) and 84 new vehicle trips during the PM peak hour (10 entering and 74 exiting). It is noted that the new trips generated by the site are less than the NYSDOT and ITE threshold of 100 site generated vehicles on any one approach for off-site intersection analysis. This guidance was developed as a tool to identify locations where the magnitude of traffic generated has the potential to impact operations at off-site intersections and screen out locations from requiring detailed analysis that do not reach the 100 vehicle threshold. However, due to the proximity of the adjacent intersections to the north and south of the site and as requested by the Town of Bethlehem, a detailed analysis of the River Road/I-87 Interchange 22 and River Road/Maple Avenue intersections were included in this study along with the detailed analysis of the site driveways.

Future Traffic Volumes

Future traffic volume projections typically include trips associated with specific "other development" projects approved in the study area and a general background growth rate. Conversations with a representative from the Town of Bethlehem indicated that there are no "other development" projects that will increase traffic volumes in the study area. A regression analysis using traffic volume data published by the NYSDOT shows that traffic volumes in the study area have increased by approximately one percent per year over the last several years; therefore, the 2016 Existing traffic volumes were increased by one percent per year to represent the 2018 No-Build traffic volumes as illustrated on Figure 1.

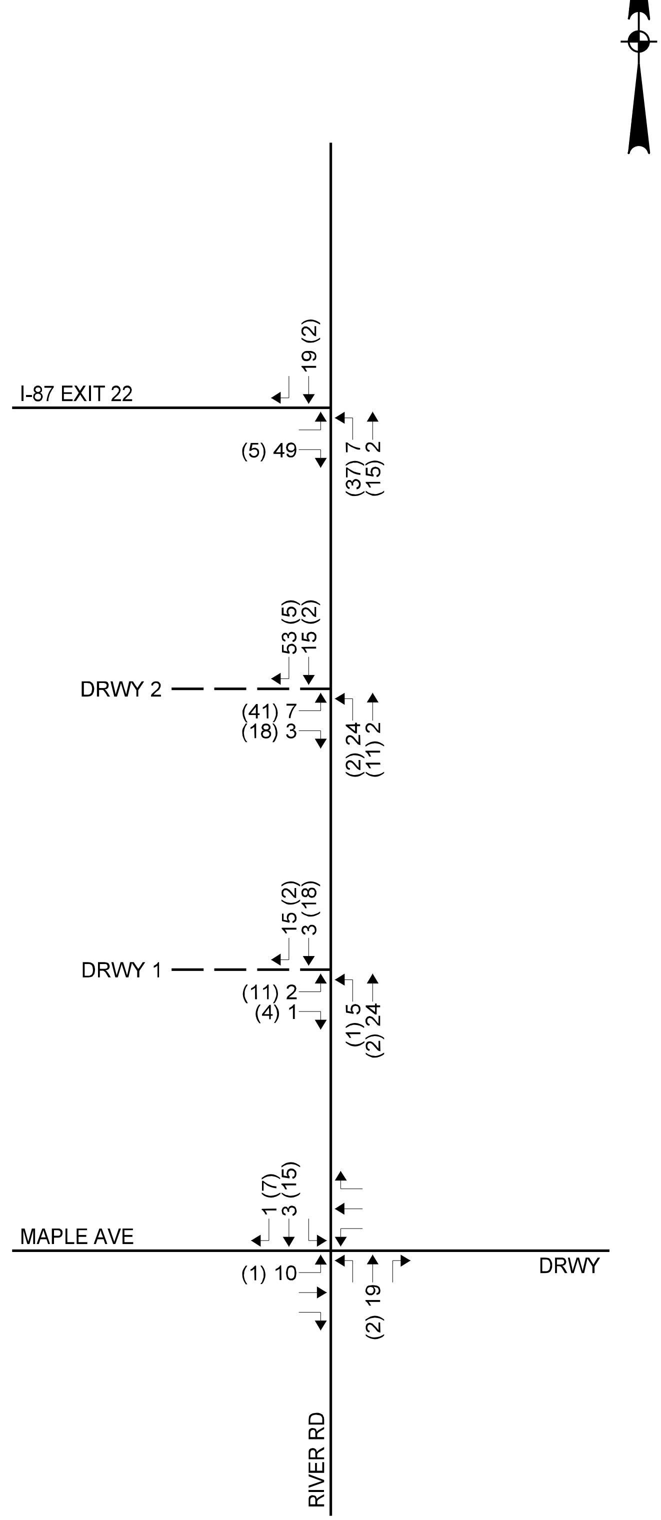
Trips associated with the proposed project were distributed at the study area intersections based on existing and anticipated travel patterns. It is expected that 20% of the site generated traffic will travel to and from the north, 50% will travel to and from the site via I-87 Exit 22, 20% will travel to and from the south, and the remaining 10% will travel to and from the west on Maple Avenue as shown on Figure 2. Trips were assigned to the site driveways and the two adjacent intersections to the north and south of the site (as shown on Figure 2) to develop the 2018 Build

## TRIP DISTRIBUTION




ENTERING (EXITING)

## TRIP ASSIGNMENT




AM PEAK HOUR (PM PEAK HOUR)

TRIP DISTRIBUTION / ASSIGNMENT

GATEWAY COMMERCE CENTER
TOWN OF BETHLEHEM, NEW YORK

Creighton Manning

PROJECT: 115-301 | DATE: 03/2016 | FIGURE: 2

**TRIP GENERATION CALCULATIONS**

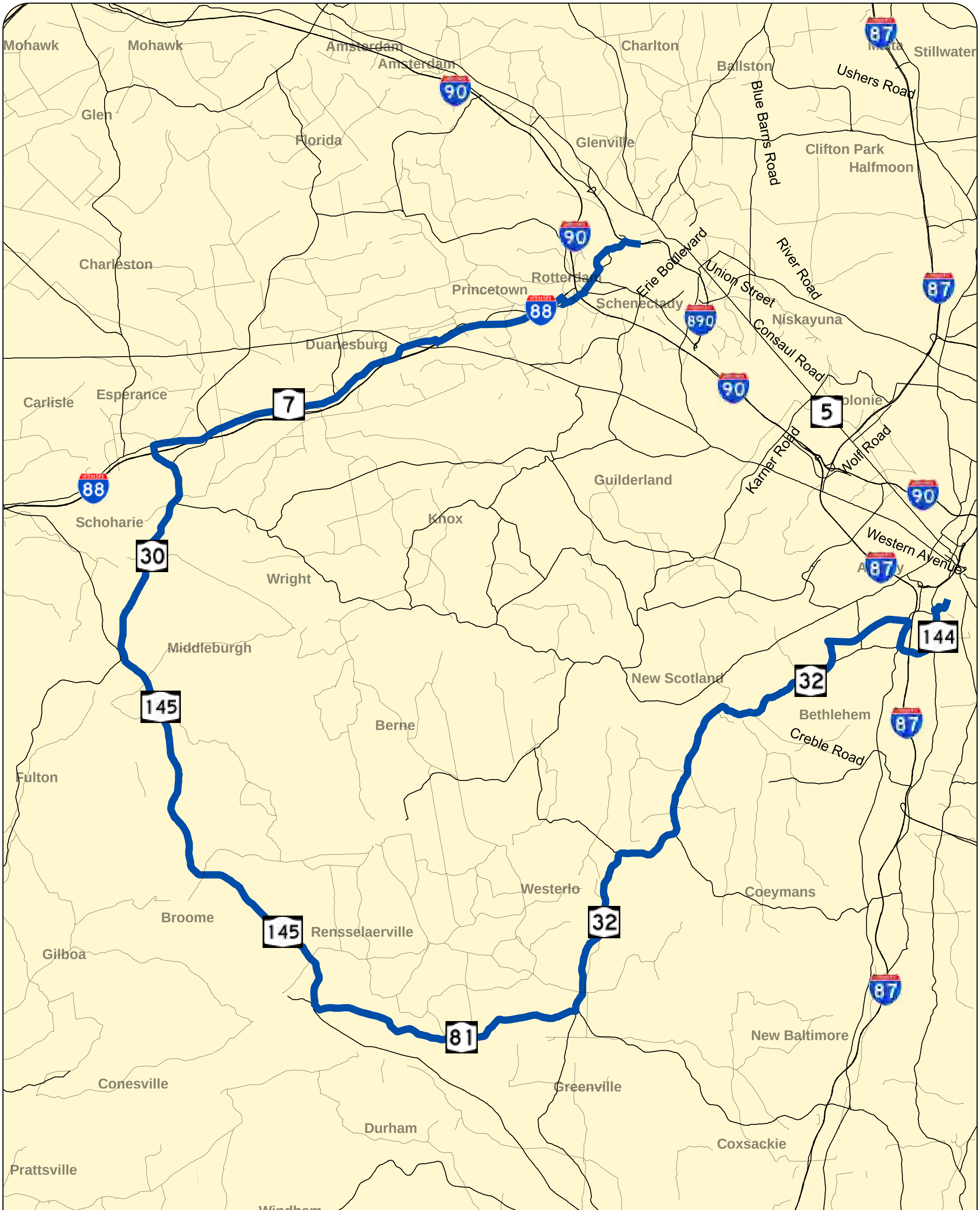
| Type of Land Use | ITE Code | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Existing Port of Albany (2009 Volumes) | NA | 925 | 1000 SF | Generation Rate = | | 0.57 | Generation Rate = | | 0.47 |
| | | | | 59% | 41% | 100% | 33% | 67% | 100% |
| | | | | 310 | 215 | 525 | 143 | 293 | 436 |
| **Total Projected Trips** | | | | **310** | **215** | **525** | **143** | **293** | **436** |

| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Industrial Park | 130 | 1,130 | 1000 SF | Generation Rate = | | 0.41 | Generation Rate = | | 0.4 |
| | | | | 87% | 13% | 100% | 21% | 79% | 100% |
| | | | | 403 | 60 | 463 | 95 | 358 | 452 |
| **Total Projected Trips** | | | | **403** | **60** | **463** | **95** | **358** | **452** |
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Manufacturing | 140 | 1,130 | 1000 SF | Generation Rate = | | 0.81 | Generation Rate = | | 0.79 |
| | | | | 72% | 28% | 100% | 43% | 57% | 100% |
| | | | | 659 | 256 | 915 | 384 | 509 | 893 |
| **Total Projected Trips** | | | | **659** | **256** | **915** | **384** | **509** | **893** |
| Type of Land Use | ITE Code* | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| General Light Industrial | 110 | 1,130 | 1000 SF | Generation Rate = | | 0.92 | Generation Rate = | | 0.83 |
| | | | | 87% | 13% | 100% | 18% | 82% | 100% |
| | | | | 904 | 135 | 1040 | 169 | 769 | 938 |
| **Total Projected Trips** | | | | **904** | **135** | **1040** | **169** | **769** | **938** |

* Trip generation rates is based on ITE Trip Generation Manual 10th Edition for Trips Generated during the existing morning and evening peak hours at the study area intersections.

| Type of Land Use | ITE Code** | Unit | | Weekday Morning Peak | | | Weekday Evening Peak | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Enter | Exit | Total | Enter | Exit | Total |
| Previous Study: | | | | | | | | | |
| Gen. Heavy Industrial | 120 | 277 | 1000 SF | 124 | 17 | 141 | 23 | 165 | 188 |
| Industrial Park | 130 | 277 | 1000 SF | 185 | 41 | 226 | 54 | 201 | 255 |
| Warehouse | 150 | 277 | 1000 SF | 115 | 30 | 145 | 29 | 86 | 115 |
| **Total Projected Trips** | | | | **424** | **88** | **512** | **106** | **452** | **558** |

** Trip generation rates is based on ITE Trip Generation Manual 8th Edition for Trips Generated during the existing morning and evening peak hours at the study area intersections.




PROPOSED OVERSIZED
TRUCK ROUTE

PORT TO GE TRAFFIC PLAN
DAGEN TRUCKING

Creighton Manning

PROJECT: 119-187 | DATE: 09/2019 | FIGURE: 1

90
Western Avenue
Albany
87
443
144
Glenmont Road
32
9W
Bethlehem
Creble Road
87
Maple Avenue

## Table C-3 – Build Level of Service and Delay (sec) – AM Peak Hour

| US Route 9W/Glenmont Rd/ Feura Bush Rd Intersection | | | Control | AM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ETC (2020) | | | ETC+10 (2030) | | | ETC+20 (2040) | | |
| | | | | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue |
| Signalized Geometric Improvements | Feura Bush Rd EB | L | S | B (17.1) | 0.53 | 175 | C (24.4) | 0.64 | 225 | C (24.7) | 0.65 | 225 |
| | | TR | | B (16.5) | 0.32 | 75 | C (22.3) | 0.47 | 150 | C (22.6) | 0.50 | 150 |
| | Glenmont Rd WB | L | | C (22.7) | 0.16 | 50 | C (26.1) | 0.22 | 50 | C (26.2) | 0.22 | 50 |
| | | T | | C (26.7) | 0.49 | 75 | C (31.6) | 0.60 | 100 | C (31.7) | 0.60 | 100 |
| | | R | | C (28.4) | 0.57 | 25 | C (31.7) | 0.47 | 50 | C (31.9) | 0.48 | 50 |
| | US Route 9W NB | L | | B (13.0) | 0.02 | 25 | B (14.1) | 0.03 | 25 | B (14.1) | 0.03 | 25 |
| | | TR | | B (18.8) | 0.83 | 300 | C (26.1) | 0.90 | 450 | C (26.3) | 0.90 | 450 |
| | US Route 9W SB | L | | C (24.8) | 0.13 | 25 | C (30.5) | 0.10 | 25 | C (30.7) | 0.11 | 25 |
| | | T | | B (11.4) | 0.31 | 100 | B (11.5) | 0.40 | 150 | B (11.5) | 0.40 | 150 |
| | | R | | A (2.7) | 0.00 | 0 | A (2.7) | 0.00 | 0 | A (2.7) | 0.01 | 0 |
| | | Overall | | B (18.1) | -- | -- | C (23.3) | -- | -- | C (23.5) | -- | -- |
| Single Lane | US Route 9W NB | LTR | R | C (32.5) | 0.88 | 475 | **F (98.8)** | **1.16** | 1425 | **F (107)** | **1.16** | 1500 |
| | US Route 9W SB | LTR | | A (7.3) | 0.37 | 75 | A (9.4) | 0.49 | 100 | A (9.5) | 0.49 | 100 |
| | Feura Bush Rd EB | LTR | | B (11.1) | 0.55 | 125 | B (17.4) | 0.70 | 225 | B (18.4) | 0.72 | 250 |
| | Glenmont Rd WB | LTR | | B (16.2) | 0.46 | 75 | C (21.4) | 0.58 | 100 | C (21.1) | 0.57 | 100 |
| | | Overall | | B (18.9) | -- | -- | D (47.3) | -- | -- | D (50.6) | -- | -- |
| Hybrid | US Route 9W NB | LT | R | B (16.5) | 0.70 | 225 | C (32.5) | 0.89 | 475 | C (34.8) | 0.90 | 500 |
| | | R | | A (5.6) | 0.09 | 25 | A 6.1) | 0.12 | 25 | A (6.2) | 0.12 | 25 |
| | US Route 9W SB | LT | | A (5.4) | 0.24 | 50 | A (6.8) | 0.34 | 50 | A (6.8) | 0.34 | 50 |
| | | R | | A (4.5) | 0.12 | 25 | A (4.7) | 0.13 | 25 | A (4.7) | 0.13 | 25 |
| | Feura Bush Rd EB | L | | A (6.8) | 0.33 | 50 | A (8.1) | 0.38 | 50 | A (8.2) | 0.39 | 50 |
| | | TR | | A (5.6) | 0.19 | 25 | A (7.2) | 0.27 | 50 | A (7.4) | 0.28 | 50 |
| | Glenmont Rd WB | L | | A (8.3) | 0.11 | 25 | B (10.3) | 0.16 | 25 | B (10.4) | 0.16 | 25 |
| | | TR | | B (10.1) | 0.29 | 50 | B (12.9) | 0.37 | 50 | B (13.0) | 0.37 | 50 |
| | | Overall | | A (9.9) | -- | -- | B (16.3) | -- | -- | B (17.1) | -- | -- |

## Table C-4 – Build Level of Service and Delay (sec) – PM Peak Hour

| US Route 9W/Glenmont Rd/ Feura Bush Rd Intersection | | | Control | PM Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ETC (2020) | | | ETC+10 (2030) | | | ETC+20 (2040) | | |
| | | | | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue |
| Signalized Geometric Improvements | Feura Bush Rd EB | L | S | B (12.9) | 0.39 | 100 | C (20.7) | 0.56 | 175 | C (20.7) | 0.57 | 175 |
| | | TR | | B (14.9) | 0.23 | 75 | B (19.5) | 0.34 | 125 | B (19.3) | 0.35 | 125 |
| | Glenmont Rd WB | L | | B (18.7) | 0.34 | 100 | C (23.1) | 0.42 | 125 | C (22.7) | 0.41 | 125 |
| | | T | | C (25.1) | 0.71 | 150 | C (33.0) | 0.81 | 250 | C (34.1) | 0.82 | 250 |
| | | R | | C (23.2) | 0.27 | 50 | C (26.9) | 0.28 | 75 | C (26.5) | 0.27 | 75 |
| | US Route 9W NB | L | | C (23.3) | 0.13 | 25 | C (33.0) | 0.17 | 25 | C (33.2) | 0.12 | 25 |
| | | TR | | B (17.2) | 0.64 | 200 | B (18.6) | 0.63 | 275 | B (19.4) | 0.65 | 300 |
| | US Route 9W SB | L | | C (22.2) | 0.17 | 25 | C (24.1) | 0.05 | 25 | C (25.1) | 0.05 | 25 |
| | | T | | B (18.0) | 0.70 | 225 | C (26.5) | 0.84 | 425 | C (27.8) | 0.86 | 425 |
| | | R | | A (5.1) | 0.26 | 25 | A (6.0) | 0.24 | 75 | A (6.3) | 0.24 | 75 |
| | | Overall | | B (16.6) | -- | -- | C (22.4) | -- | -- | C (23.0) | -- | -- |
| Single Lane | US Route 9W NB | LTR | R | B (11.5) | 0.54 | 125 | B (15.6) | 0.66 | 200 | B (16.1) | 0.66 | 200 |
| | US Route 9W SB | LTR | | **F (65.9)** | **1.05** | 1250 | **F (190)** | **1.37** | 2825 | **F (196)** | 1.38 | 2900 |
| | Feura Bush Rd EB | LTR | | B (15.4) | 0.58 | 125 | C (24.3) | 0.76 | 225 | C (25.6) | 0.77 | 225 |
| | Glenmont Rd WB | LTR | | C (20.1) | 0.70 | 175 | D (51.8) | 0.96 | 500 | E (59.0) | 0.99 | 600 |
| | | Overall | | D (36.1) | -- | | **F (94.0)** | -- | | **F (97.8)** | -- | -- |
| Hybrid | US Route 9W NB | LT | R | A (8.8) | 0.44 | 75 | B (10.6) | 0.51 | 100 | B (10.7) | 0.52 | 100 |
| | | R | | A (4.5) | 0.05 | 25 | A (5.1) | 0.08 | 25 | A (5.2) | 0.08 | 25 |
| | US Route 9W SB | LT | | B (11.2) | 0.56 | 125 | C (22.5) | 0.80 | 325 | C (23.1) | 0.81 | 350 |
| | | R | | A (9.0) | 0.42 | 75 | B (10.1) | 0.45 | 75 | B (10.3) | 0.45 | 75 |
| | Feura Bush Rd EB | L | | A (8.6) | 0.33 | 50 | B (12.0) | 0.44 | 75 | B (12.1) | 0.44 | 75 |
| | | TR | | A( 7.6) | 0.20 | 25 | B (11.5) | 0.36 | 50 | B (12.0) | 0.38 | 50 |
| | Glenmont Rd WB | L | | A (8.0) | 0.25 | 25 | A (9.3) | 0.30 | 50 | A (9.3) | 0.30 | 50 |
| | | TR | | A (9.3) | 0.38 | 50 | B (13.4) | 0.55 | 100 | B (14.2) | 0.57 | 125 |
| | | Overall | | A (9.2) | -- | -- | B (14.0) | -- | -- | B (14.4) | -- | -- |

**Table C-5 – Build Level of Service and Delay (sec) – Saturday Peak Hour**

| US Route 9W/Glenmont Rd/ Feura Bush Rd Intersection | | | Control | Saturday Peak Hour | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | ETC (2020) | | | ETC+10 (2030) | | | ETC+20 (2040) | | |
| | | | | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue | LOS (Delay) | V/C | 95th % Queue |
| Signalized Geometric Improvements | Feura Bush Rd EB | L | S | B (17.4) | 0.57 | 175 | C (34.3) | 0.85 | 250 | D (35.3) | 0.86 | 250 |
| | | TR | | B (16.1) | 0.14 | 50 | B (19.3) | 0.39 | 150 | B (19.5) | 0.40 | 175 |
| | Glenmont Rd WB | L | | B (19.8) | 0.28 | 75 | C (21.1) | 0.31 | 100 | C (21.3) | 0.31 | 100 |
| | | T | | C (27.0) | 0.72 | 150 | D (38.6) | 0.85 | 325 | D (39.6) | 0.86 | 325 |
| | | R | | C (25.1) | 0.32 | 50 | C (26.2) | 0.31 | 75 | C (26.2) | 0.30 | 75 |
| | US Route 9W NB | L | | B (19.0) | 0.10 | 25 | C (25.3) | 0.15 | 50 | C (25.1) | 0.12 | 25 |
| | | TR | | B (18.3) | 0.72 | 275 | C (25.3) | 0.79 | 375 | C (25.9) | 0.80 | 400 |
| | US Route 9W SB | L | | C (25.4) | 0.22 | 50 | C (33.5) | 0.26 | 50 | C (34.1) | 0.26 | 50 |
| | | T | | B (15.1) | 0.49 | 175 | B (19.1) | 0.58 | 250 | B (19.1) | 0.57 | 250 |
| | | R | | A (4.8) | 0.21 | 50 | A (6.8) | 0.17 | 50 | A (6.9) | 0.17 | 50 |
| | Overall | | | B (17.6) | -- | -- | C (25.8) | -- | -- | C (26.4) | -- | -- |
| Single Lane | US Route 9W NB | LTR | R | C (21.4) | 0.76 | 275 | D (53.2) | 0.97 | 600 | D (53.4) | 0.97 | 600 |
| | US Route 9W SB | LTR | | C (30.5) | 0.89 | 600 | D (43.0) | 0.96 | 775 | D (41.5) | 0.95 | 775 |
| | Feura Bush Rd EB | LTR | | B (18.5) | 0.70 | 200 | D (43.2) | 0.94 | 550 | D (43.2) | 0.94 | 550 |
| | Glenmont Rd WB | LTR | | C (33.1) | 0.82 | 225 | **F (181)** | **1.32** | 1575 | **F (186)** | **1.33** | 1600 |
| | Overall | | | C (26.0) | -- | -- | E (77.7) | -- | -- | E (78.6) | -- | -- |
| Hybrid | US Route 9W NB | LT | R | B (13.3) | 0.61 | 150 | C (20.2) | 0.74 | 225 | C (20.3) | 0.74 | 225 |
| | | R | | A (5.1) | 0.07 | 25 | A (6.3) | 0.11 | 25 | A (6.3) | 0.11 | 25 |
| | US Route 9W SB | LT | | A (8.6) | 0.43 | 75 | B (13.1) | 0.59 | 125 | B (13.0) | 0.58 | 125 |
| | | R | | A (8.5) | 0.41 | 50 | A (9.6) | 0.40 | 75 | A (9.7) | 0.40 | 75 |
| | Feura Bush Rd EB | L | | A (8.8) | 0.40 | 75 | B (11.6) | 0.51 | 100 | B (11.6) | 0.51 | 100 |
| | | TR | | A (7.3) | 0.24 | 25 | A (9.6) | 0.36 | 50 | A (9.7) | 00.37 | 50 |
| | Glenmont Rd WB | L | | A (8.9) | 0.23 | 25 | B (10.6) | 0.28 | 50 | B (10.8) | 0.29 | 50 |
| | | TR | | B (12.7) | 0.48 | 75 | C (33.1) | 0.83 | 250 | C (33.5) | 0.84 | 250 |
| | Overall | | | B (10.0) | -- | -- | B (16.9) | -- | -- | B (17.0) | -- | -- |

**Summary of Level of Service (LOS) Findings:**

Alternative 1 – Traffic Signal with Geometric Improvements:

The level of service analysis indicates that the following geometric improvements will be required to provide adequate operations at this intersection:

- Exclusive northbound and southbound left turn lanes on US Route 9W
- An exclusive left turn lane and a separate right turn lane on the westbound Glenmont Road approach.

The analysis indicates that a traffic signal will operate at an overall LOS B/C through the design year. All intersection movements will operate at LOS C or better during the AM and PM peak hours through ETC+20 conditions while all intersection movements will operate at LOS D or better during the midday Saturday peak hour through ETC+20 conditions.

Alternative 2 – Single Lane Roundabout:

The level of service analysis for the AM peak hour indicates that a single lane roundabout will operate at an overall LOS B during ETC conditions and an overall LOS D during ETC+10 and ETC+20 conditions with the southbound US Route 9W approach operating at LOS F during ETC+10 conditions. During the PM peak hour, a single lane roundabout will operate at an overall LOS D during ETC conditions and an overall LOS F during ETC+10 and ETC+20 conditions with the northbound US Route 9W approach operating at LOS F through ETC+20 conditions. The level of service analysis for the Saturday peak hour indicates that a single lane roundabout will operate at an overall LOS C during ETC conditions and an overall LOS E during ETC+10 and ETC+20 conditions with the westbound Glenmont Road approach operating at LOS F during ETC+10 conditions.

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | River Road - NYS Route 144 (Existing) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Corning Hill Road - NYS Route 32 (Existing) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | Y |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | Y |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 875 | 126 | 596 | 126 | 0 | 0 |
| 8:00-9:00 | 763 | 122 | 521 | 122 | 0 | 0 |
| 9:00-10:00 | 721 | 125 | 454 | 125 | 0 | 0 |
| Noon-1:00 | 571 | 100 | 321 | 100 | 0 | 0 |
| 2:00-3:00 | 599 | 90 | 344 | 90 | 0 | 0 |
| 3:00-4:00 | 662 | 82 | 410 | 82 | 0 | 0 |
| 4:00-5:00 | 1108 | 85 | 840 | 85 | 0 | 0 |
| 5:00-6:00 | 1053 | 87 | 829 | 87 | 0 | 0 |
| AM Peak | 918 | 143 | 674 | 143 | 0 | 0 |
| PM Peak | 1205 | 94 | 953 | 94 | 0 | 0 |

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 4 | 3 | 3 |

**Applicable Signal Warrant Details:**

**Warrant 1, Eight-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No hours meet warrant 1A**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**Yes, all 8 hours meet warrant 1B**

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only three hours meet both the Warrant 1A & 1B 56% columns**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

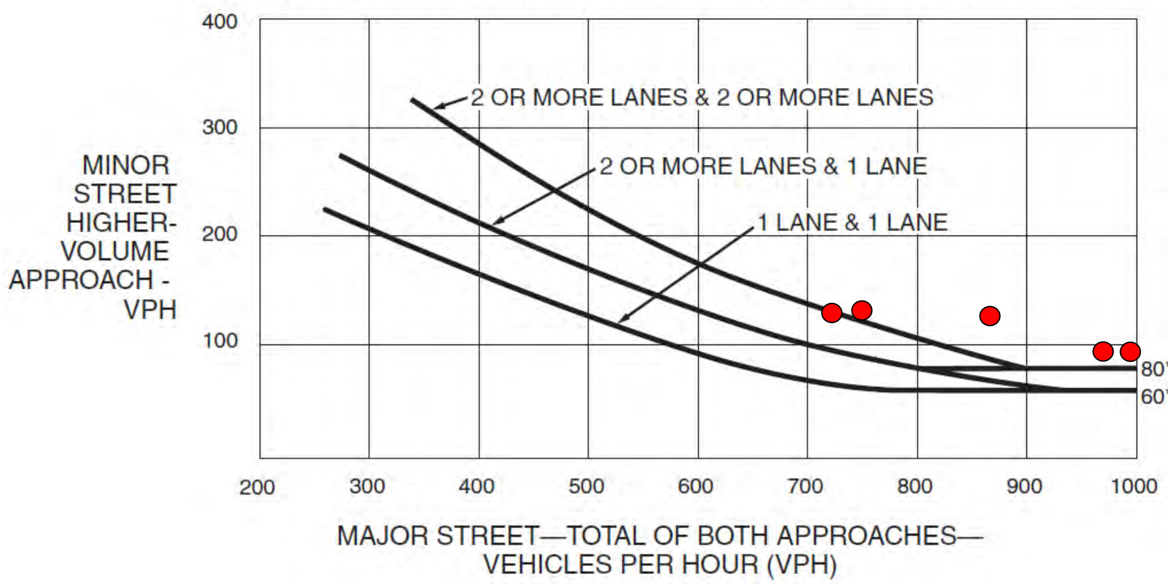
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Yes, at least 4 hours meet Warrant 2 based on a 2-lane approach for Route 32**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**No, the minor approach has 2.00 hours of delay during the morning peak hour.**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (208 vehicles per hour during the AM peak hour & 133 vehicles per hour during the PM).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (1207 vehicles per hour during the AM peak hour and 1469 vehicles per hour during the PM peak hour.**

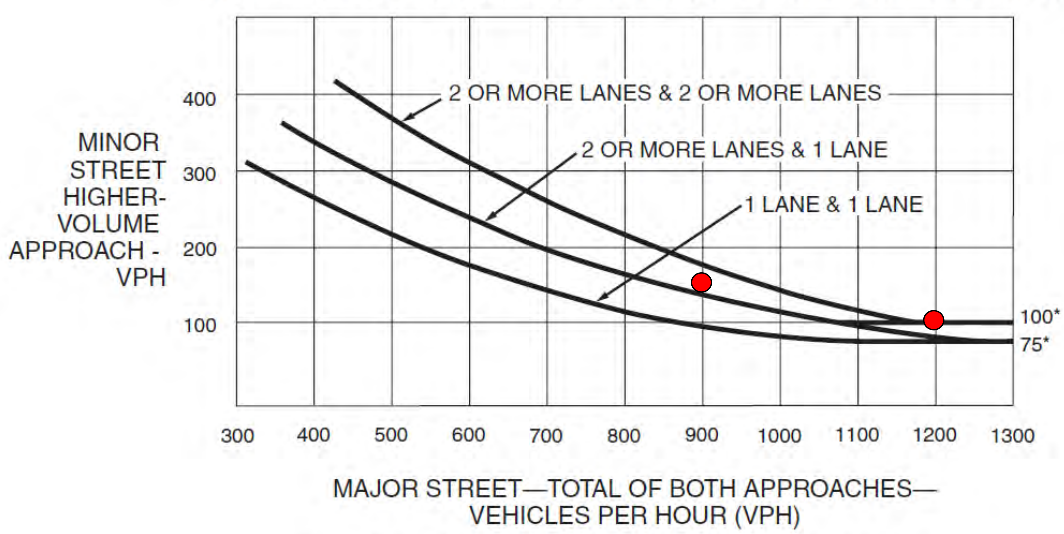
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

**Yes, both peak hours meet warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

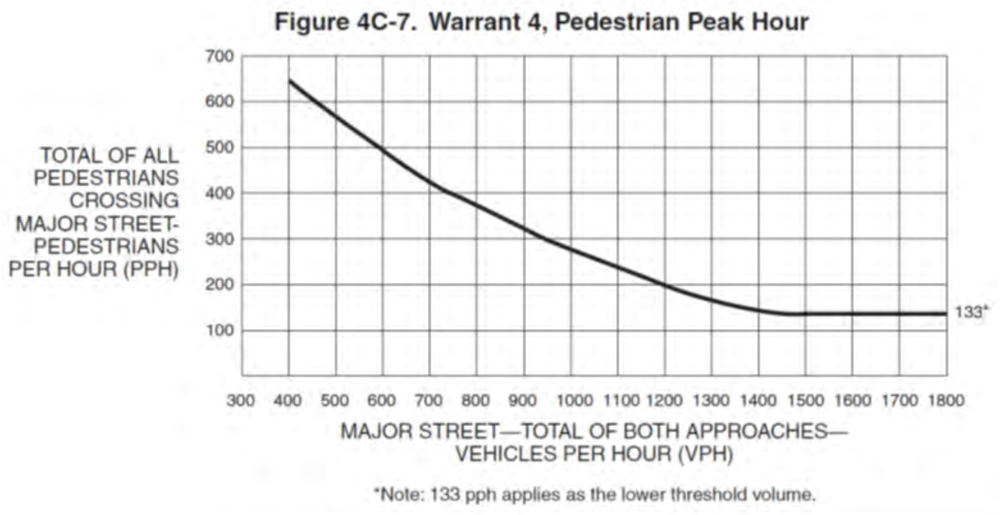
The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

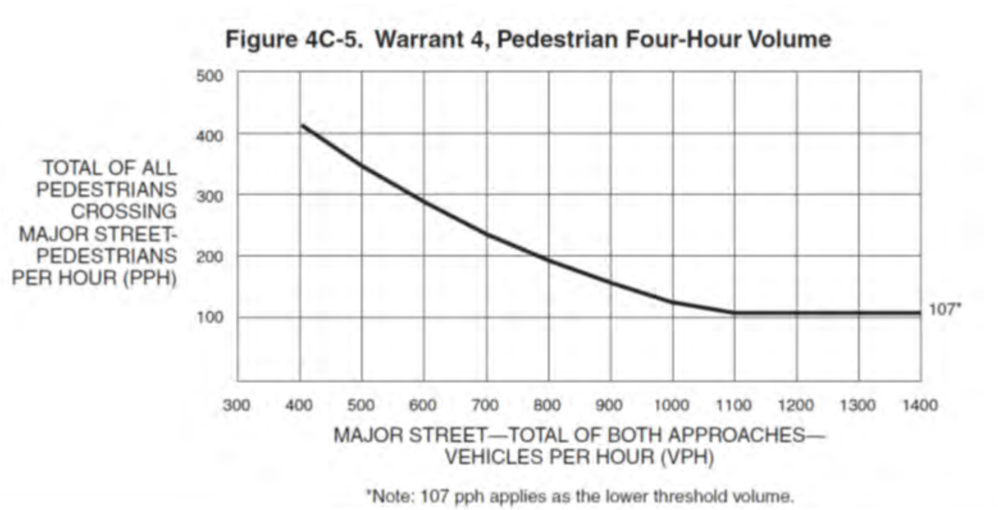
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-7.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, no pedestrians were observed during the traffic counts.**




## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 4 crashed total, 3 with multiple vehicles, 2 included injuries and 1 included property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Yes, Condition B is met.**

**Warrant 7 not met.**

.

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(Proposed entering volume is 1299 vehicles during the PM peak hour)**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | NYS Route 144 (Existing) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Glenmont Road (Existing) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | N |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | N |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 725 | 158 | 497 | 158 | 0 | 0 |
| 8:00-9:00 | 534 | 181 | 347 | 181 | 0 | 0 |
| 9:00-10:00* | 365 | 78 | 172 | 78 | 0 | 0 |
| 1:00-2:00* | 350 | 75 | 180 | 75 | 0 | 0 |
| 2:00-3:00* | 381 | 82 | 202 | 82 | 0 | 0 |
| 3:00-4:00* | 467 | 100 | 284 | 100 | 0 | 0 |
| 4:00-5:00 | 797 | 90 | 599 | 90 | 0 | 0 |
| 5:00-6:00 | 783 | 60 | 613 | 60 | 0 | 0 |
| AM Peak | 757 | 178 | 532 | 178 | 0 | 0 |
| PM Peak | 853 | 88 | 654 | 88 | 0 | 0 |

* =Volumes projected from adjacent tube count data.

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 10 | 0 | 0 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, only 2 hours meet warrant 1A.**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1B.**

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1C.**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

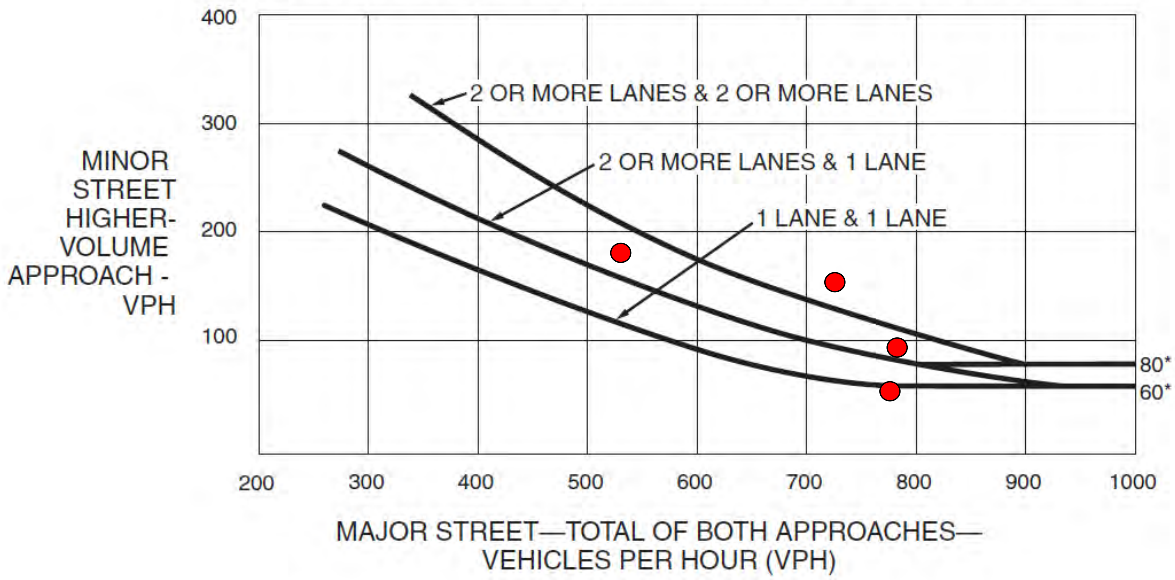
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**No, only three hours meet Warrant 2.**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**No, Glenmont Road has 1.96 hours of delay during the evening peak hour**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (178 vehicles per hour during the AM peak hour).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (935 vehicles per hour during the AM peak hour and 941 vehicles per hour during the PM peak hour).**

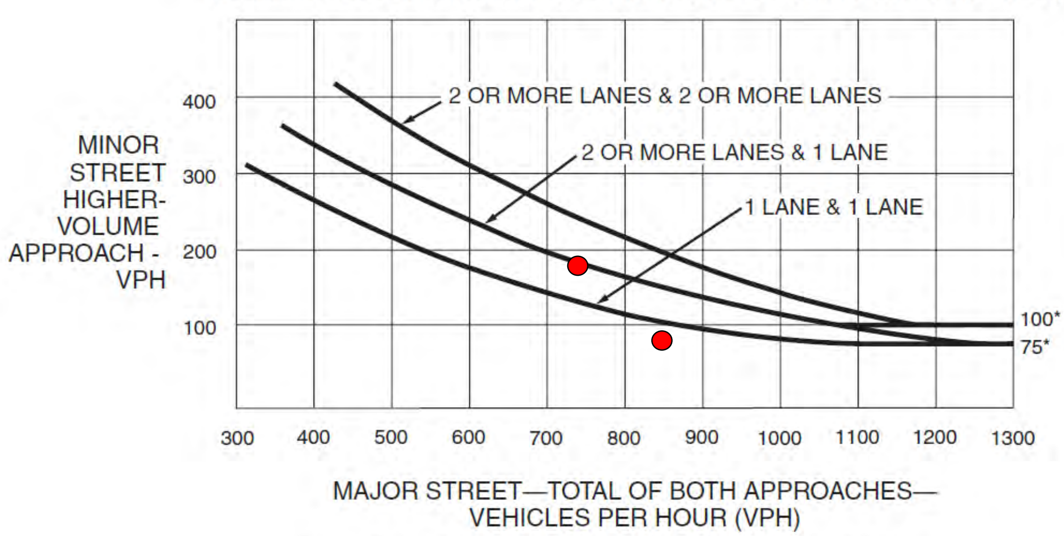
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

**Yes, the AM peak hour meets warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

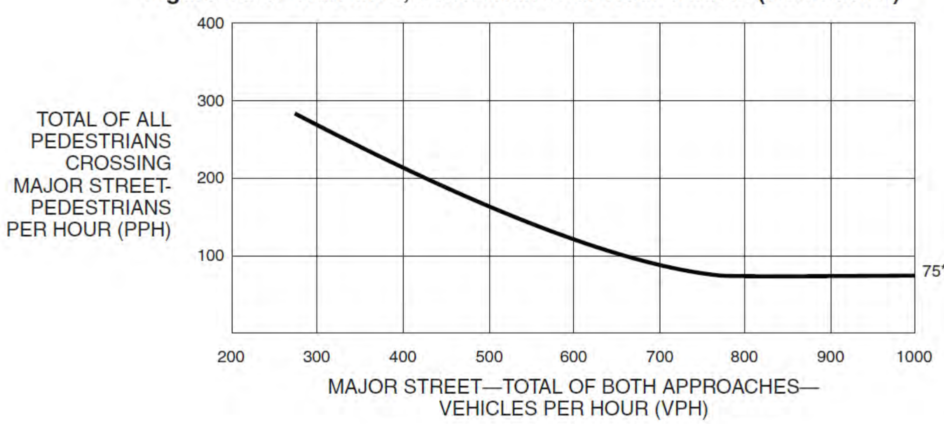
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

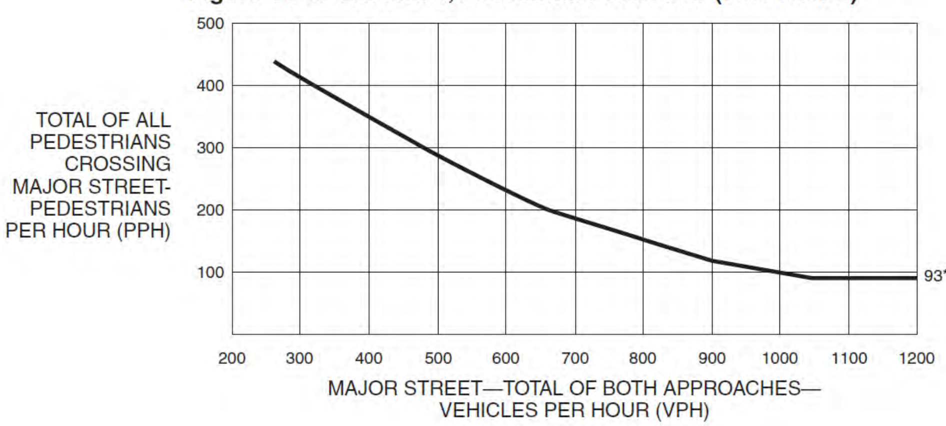
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**




*Note: 75 pph applies as the lower threshold volume.

**Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**




*Note: 93 pph applies as the lower threshold volume.

## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 10 crashed total, 8 with multiple vehicles, 0 includes injuries or property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Not met**

**Warrant 7 not met.**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(No, proposed entering volume is 935 vehicles during the am peak hour and 941 vehicles during the PM peak hour).**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | River Road - NYS Route 144 (Full Build) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Corning Hill Road - NYS Route 32 (Full Build) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | Y |
| Warrant 3 – Peak Hour | 3A | Y |
| | 3B | Y |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 936 | 162 | 667 | 162 | 0 | 0 |
| 8:00-9:00 | 836 | 145 | 554 | 145 | 0 | 0 |
| 9:00-10:00 | 779 | 135 | 490 | 135 | 0 | 0 |
| Noon-1:00 | 617 | 108 | 347 | 108 | 0 | 0 |
| 2:00-3:00 | 647 | 98 | 372 | 98 | 0 | 0 |
| 3:00-4:00 | 715 | 89 | 443 | 89 | 0 | 0 |
| 4:00-5:00 | 1199 | 108 | 910 | 108 | 0 | 0 |
| 5:00-6:00 | 1140 | 109 | 899 | 109 | 0 | 0 |
| AM Peak | 999 | 208 | 715 | 208 | 0 | 0 |
| PM Peak | 1336 | 133 | 1057 | 133 | 0 | 0 |

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 4 | 3 | 3 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, only 2 hours meet warrant 1A**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**Yes, all 8 hours meet warrant 1B**

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only three hours meet both the Warrant 1A & 1B 56% columns**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

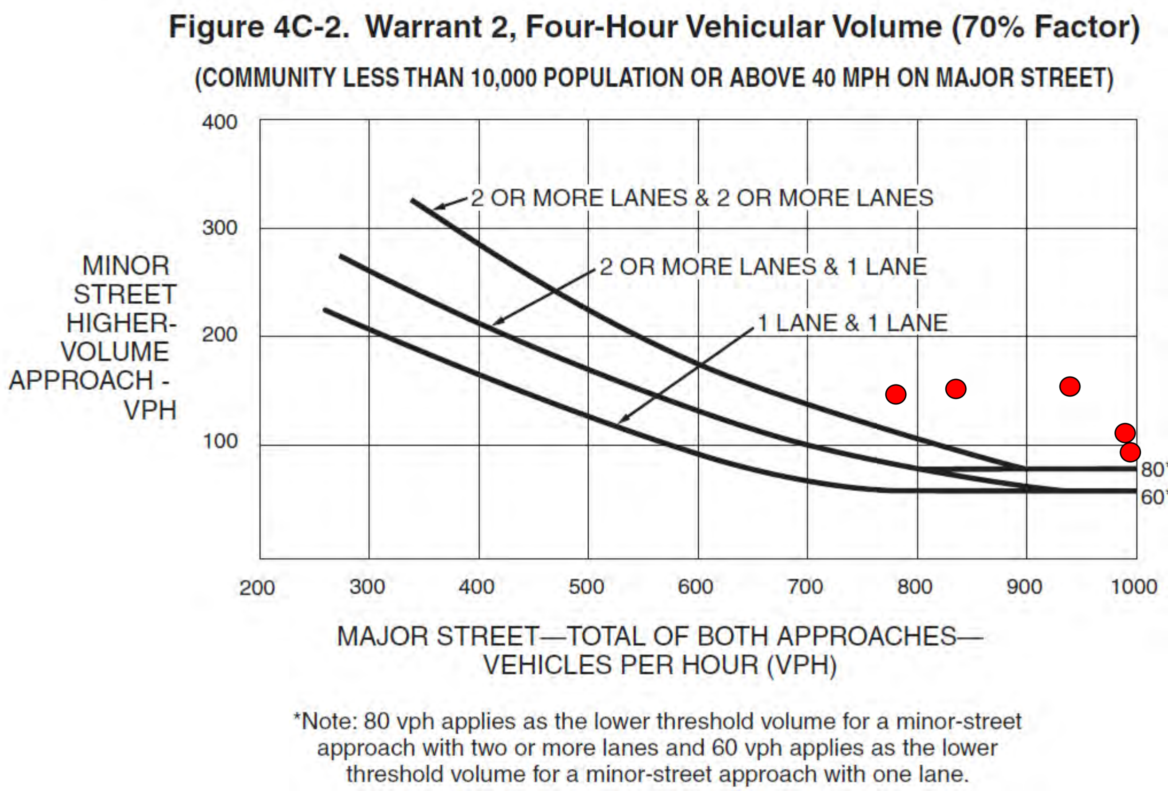
**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**<u>Warrant 2, Four-Hour Vehicular Volume</u>**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.




**Yes, at least 4 hours meet Warrant 2 based on a 2-lane approach for Route 32**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**Yes, the minor approach has 6.29 hours of delay during the morning peak hour.**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (208 vehicles per hour during the AM peak hour & 133 vehicles per hour during the PM).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (1207 vehicles per hour during the AM peak hour and 1469 vehicles per hour during the PM peak hour.**

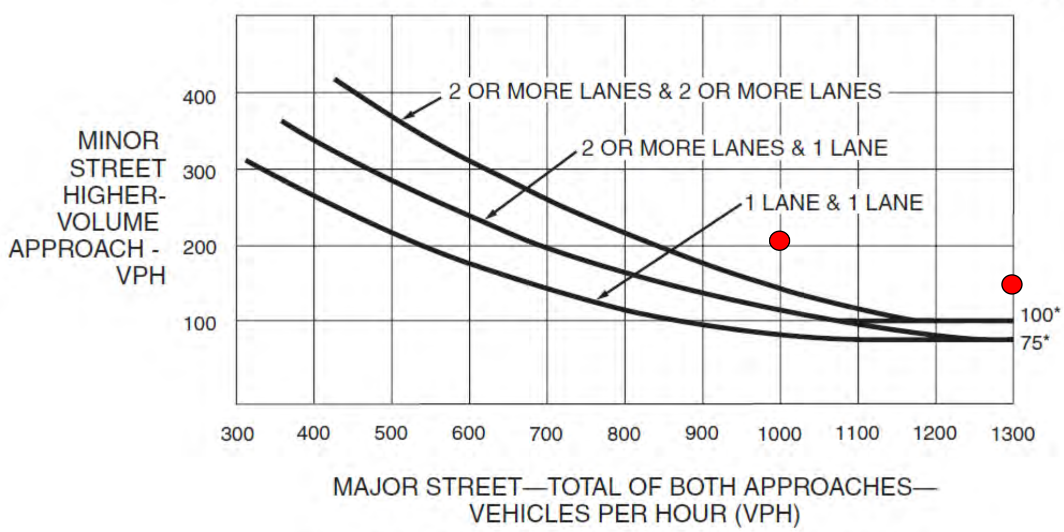
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

**Yes, both peak hours meet warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 4, Pedestrian Volume**

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

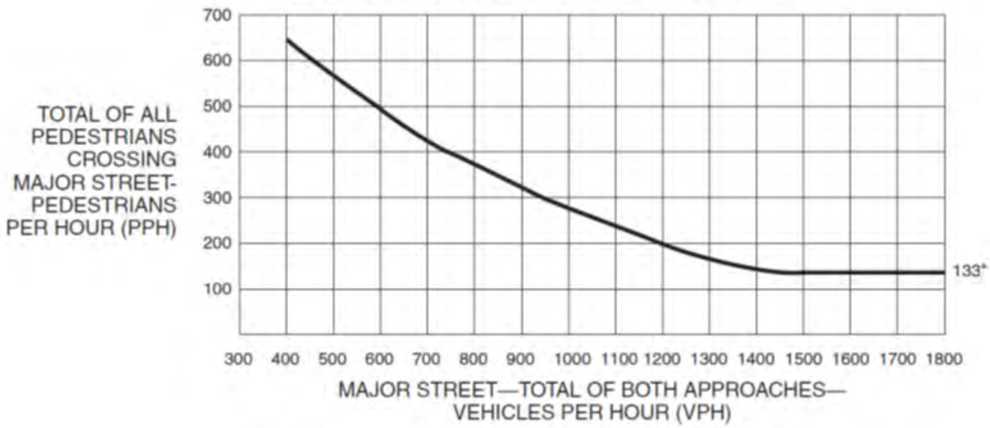
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-7.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

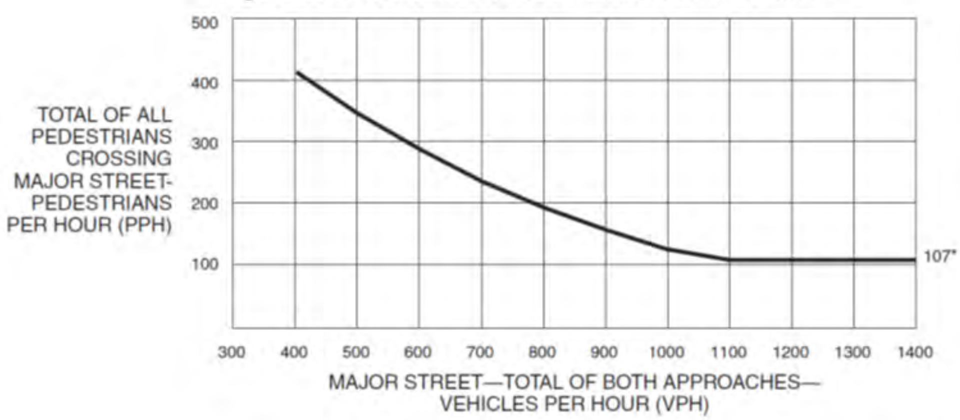
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

Figure 4C-7. Warrant 4, Pedestrian Peak Hour




*Note: 133 pph applies as the lower threshold volume.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume




*Note: 107 pph applies as the lower threshold volume.

## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 4 crashed total, 3 with multiple vehicles, 2 included injuries and 1 included property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Yes, Condition B is met.**

**Warrant 7 not met.**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(Proposed entering volume is 1299 vehicles during the PM peak hour)**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | River Road - NYS Route 144 (Full Build) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Glenmont Road – NYS Route 32 (Full Build) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | Y |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | Y |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | Y |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **Y** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 773 | 185 | 528 | 185 | 0 | 0 |
| 8:00-9:00 | 573 | 212 | 371 | 212 | 0 | 0 |
| 9:00-10:00* | 394 | 84 | 186 | 84 | 0 | 0 |
| 1:00-2:00* | 378 | 81 | 195 | 81 | 0 | 0 |
| 2:00-3:00* | 412 | 89 | 218 | 89 | 0 | 0 |
| 3:00-4:00* | 505 | 108 | 307 | 108 | 0 | 0 |
| 4:00-5:00 | 861 | 98 | 632 | 98 | 0 | 0 |
| 5:00-6:00 | 846 | 65 | 646 | 65 | 0 | 0 |
| AM Peak | 820 | 198 | 572 | 198 | 0 | 0 |
| PM Peak | 932 | 99 | 695 | 99 | 0 | 0 |

* =Volumes projected based on percentage growth associated with proposed development.

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| 36 | 10 | 0 | 0 |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, only 3 hours meet warrant 1A.**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1B.**

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, only 4 hours meet warrant 1C.**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

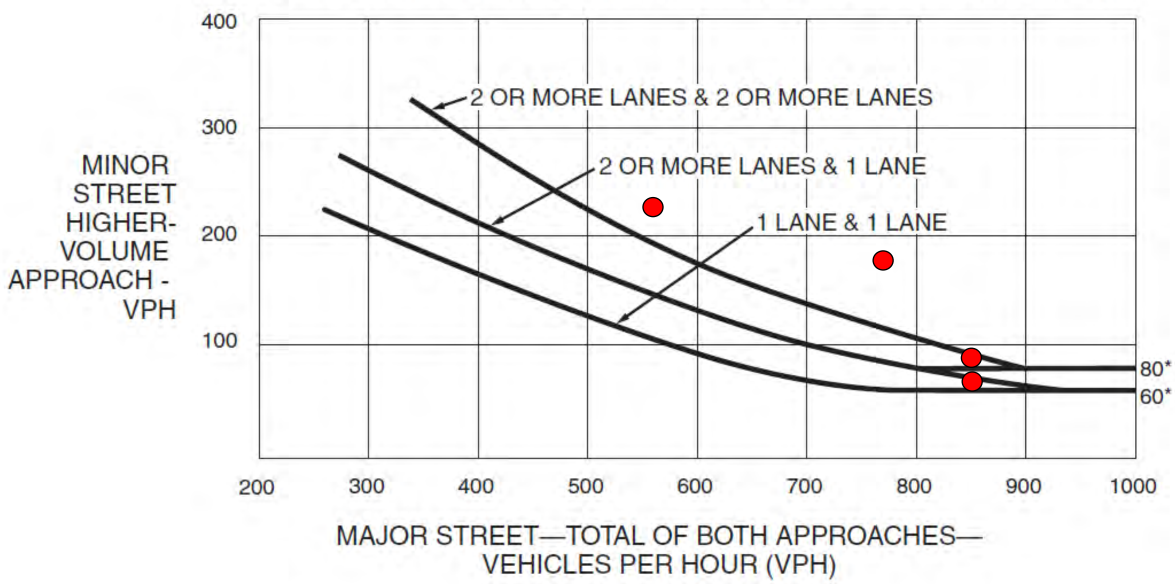
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Yes, four hours meet Warrant 2.**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**No, Glenmont Road has 1.96 hours of delay during the evening peak hour**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Yes, the Minor-street approach does exceed 100 vehicles per hour (178 vehicles per hour during the AM peak hour).**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**Yes, the total entering volume does exceed 650 vehicles per hour (935 vehicles per hour during the AM peak hour and 941 vehicles per hour during the PM peak hour).**

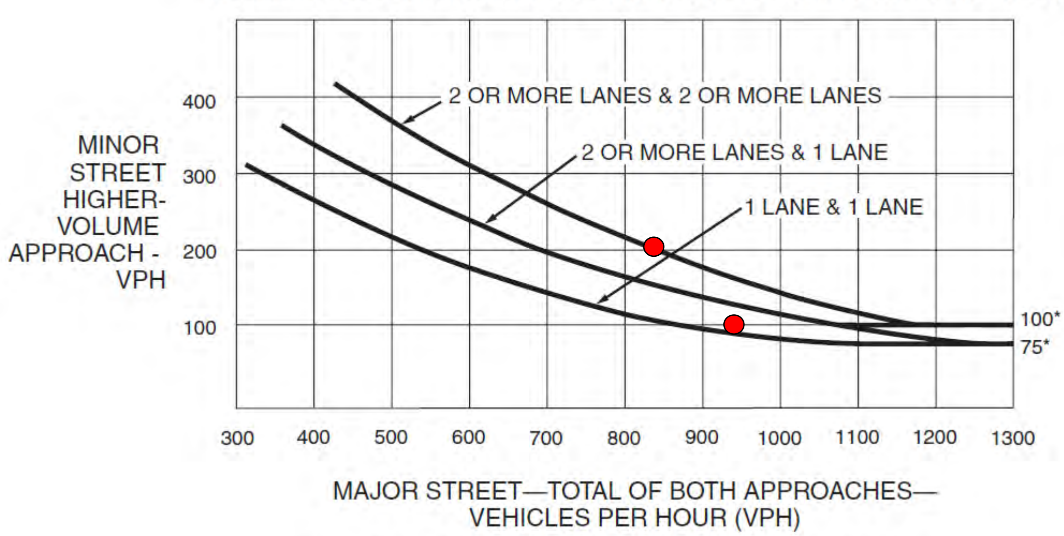
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

**Yes, the AM&PM peak hours meet warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)**




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

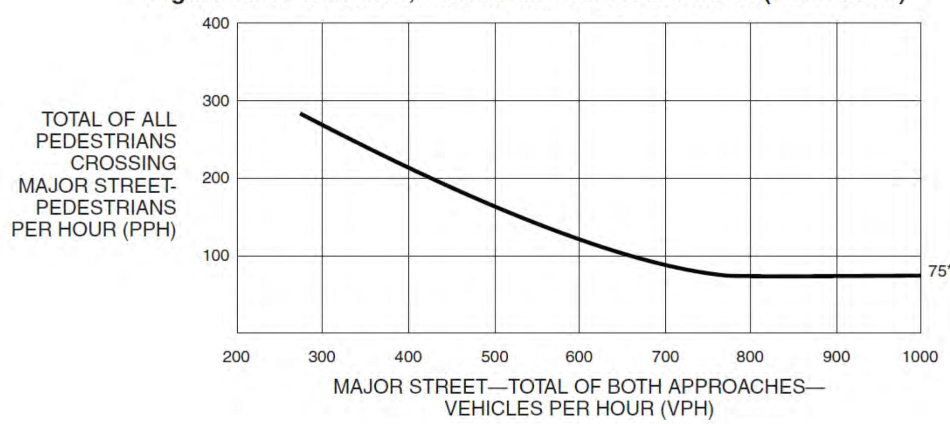
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

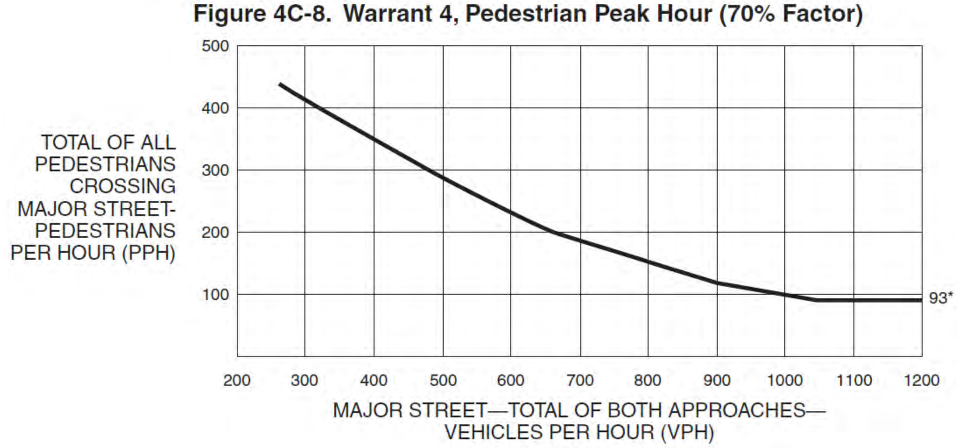
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**




*Note: 75 pph applies as the lower threshold volume.

**Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**




*Note: 93 pph applies as the lower threshold volume.

**Warrant 5, School Crossing**

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

**Warrant 6, Coordinated Signal System**

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

**Warrant 7, Crash Experience**

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

**No, Currently in process for this corridor according to Town Police)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

**No, over the last three years 10 crashed total, 8 with multiple vehicles, 0 includes injuries or property damage.**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Not met**

**Warrant 7 not met.**

## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(No, proposed entering volume is 935 vehicles during the am peak hour and 941 vehicles during the PM peak hour).**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

# SIGNAL WARRANT WORKSHEET

(Based on MUTCD 2009 Edition Signal Warrant Guidelines)

| | | | |
|---|---|---|---|
| Project Name | | Port of Albany | |
| Date: | 4/1/2019 | Analyst: | TCH |
| Major Street | | NYS Route 144 (Full Build) | |
| # of Lanes per Direction | | 1 | |
| Minor Street | | Proposed Site Driveway (Full Build) | |
| # of Lanes per Direction | | 1 | |

Warrants Met:

| Warrant: | | Met? |
|---|---|---|
| Warrant 1 – Eight Hour Vehicular Volume | 1A | N |
| | 1B | N |
| | 1C | N |
| Warrant 2 – Four Hour Vehicular Volume | | N |
| Warrant 3 – Peak Hour | 3A | N |
| | 3B | N |
| Warrant 4 – Pedestrian Volume | 4A | N |
| | 4B | N |
| Warrant 5 – School Crossings | | N |
| Warrant 6 – Coordinated Signal System | | N |
| Warrant 7 – Crash Experience | | N |
| Warrant 8 – Roadway Network | | N |
| Warrant 9 – Intersection Near a Grade Crossing | | N |
| **Signal Should be Considered?** | | **N** |

Traffic Volume Data:

| Hour | Both Approach Volumes | | Higher Volume Approach | | Crossing Ped. Volume | |
|---|---|---|---|---|---|---|
| | Major | Minor | Major | Minor | Major | Minor |
| 7:00-8:00 | 725 | 35* | 462 | 35* | 0 | 0 |
| 8:00-9:00 | 534 | 31* | 353 | 31* | 0 | 0 |
| 9:00-10:00 | 365 | 21* | 197 | 21* | | |
| 2:00-3:00 | 350 | 21* | 202 | 21* | | |
| 3:00-4:00 | 381 | 23* | 284 | 23* | | |
| 4:00-5:00 | 467 | 28* | 395 | 28* | | |
| 5:00-6:00 | 797 | 71* | 382 | 71* | 0 | 0 |
| 6:00-7:00 | 783 | 34* | 185 | 34* | | |
| AM Peak | 841 | 35* | 514 | 35* | | |
| PM Peak | 669 | 71* | 452 | 71* | | |

* = Projected volumes

Accident Data:

| Time Frame (Mo.) | Total Number of Accidents | Property Damage/Injury Acc. | Acc. Correctable with a Traffic Signal |
|---|---|---|---|
| NA | NA | NA | NA |

## Applicable Signal Warrant Details:

### Warrant 1, Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:
A. The vehicles per hour given in both of the 70 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

**No, zero hours meet warrant 1A.**

B. The vehicles per hour given in both of the 70 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, zero hours meet warrant 1B.**

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.
C. The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 56 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 56 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

**No, zero hours meet warrant 1C.**

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

**Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume**

**Condition A—Minimum Vehicular Volume**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 500 | 400 | 350 | 280 | 150 | 120 | 105 | 84 |
| 2 or more | 1 | 600 | 480 | 420 | 336 | 150 | 120 | 105 | 84 |
| 2 or more | 2 or more | 600 | 480 | 420 | 336 | 200 | 160 | 140 | 112 |
| 1 | 2 or more | 500 | 400 | 350 | 280 | 200 | 160 | 140 | 112 |

**Condition B—Interruption of Continuous Traffic**

| Number of lanes for moving traffic on each approach | | Vehicles per hour on major street (total of both approaches) | | | | Vehicles per hour on higher-volume minor-street approach (one direction only) | | | |
|---|---|---|---|---|---|---|---|---|---|
| Major Street | Minor Street | 100%[a] | 80%[b] | 70%[c] | 56%[d] | 100%[a] | 80%[b] | 70%[c] | 56%[d] |
| 1 | 1 | 750 | 600 | 525 | 420 | 75 | 60 | 53 | 42 |
| 2 or more | 1 | 900 | 720 | 630 | 504 | 75 | 60 | 53 | 42 |
| 2 or more | 2 or more | 900 | 720 | 630 | 504 | 100 | 80 | 70 | 56 |
| 1 | 2 or more | 750 | 600 | 525 | 420 | 100 | 80 | 70 | 56 |

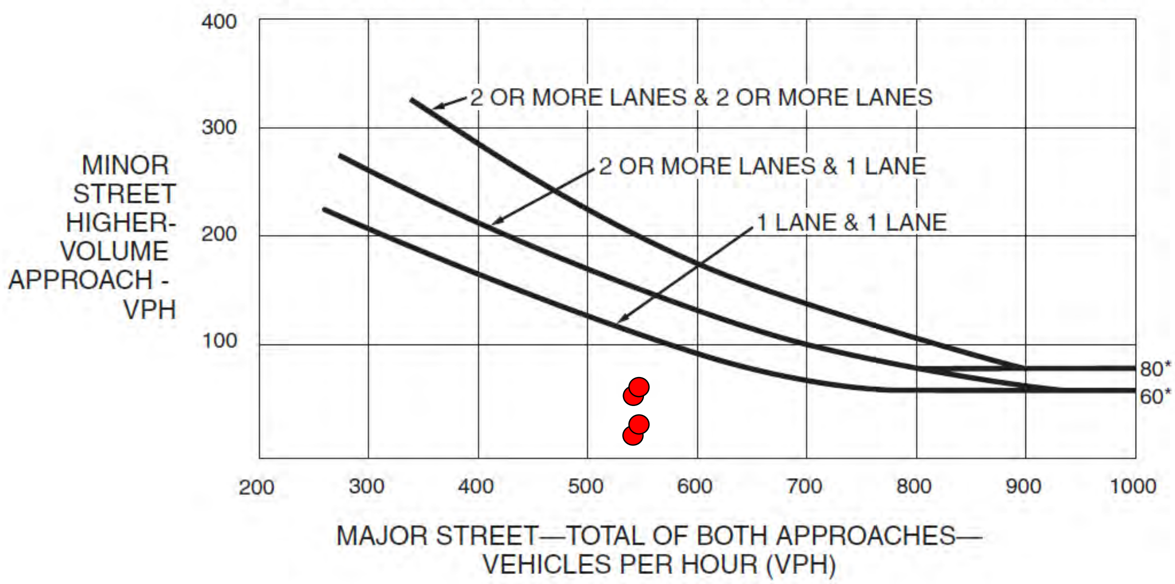
[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

**Warrant 2, Four-Hour Vehicular Volume**

The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-2 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

**No hours meet Warrant 2.**

## Warrant 3, Peak Hour

This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:
1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

**Warrant Not Met**

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

**Minor-street approach does not exceed 100 vehicles per hour.**

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for Intersections with three approaches.

**The total entering volume does not exceed 650 vehicles per.**

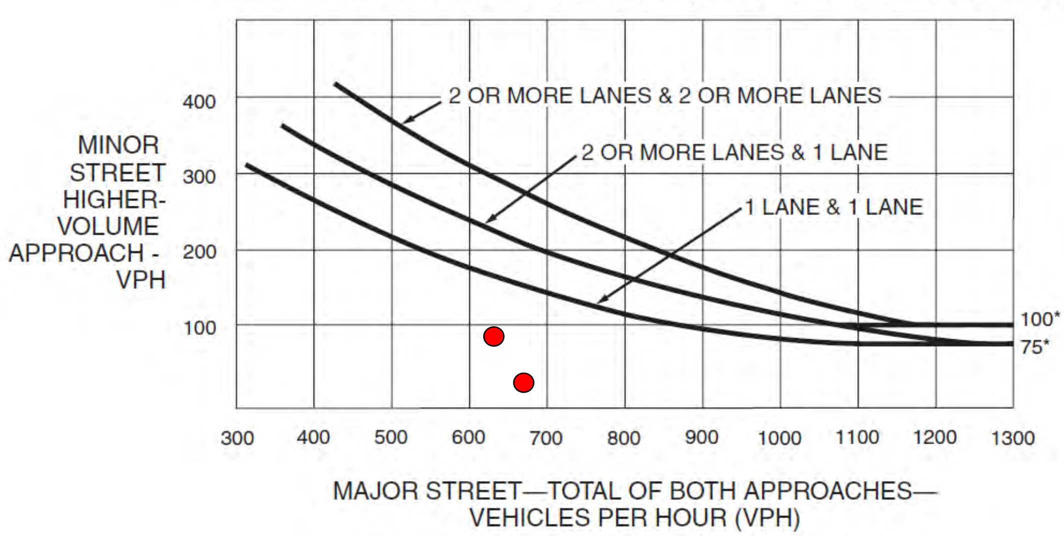
B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-4 for the existing combination of approach lanes.

**No hours meet Warrant 3B.**

If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)




*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## Warrant 4, Pedestrian Volume

The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:

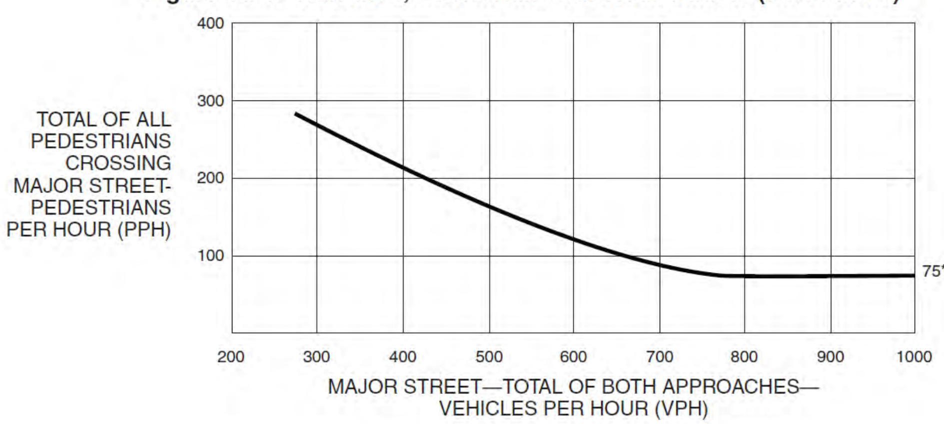
A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-6; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-8.

The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

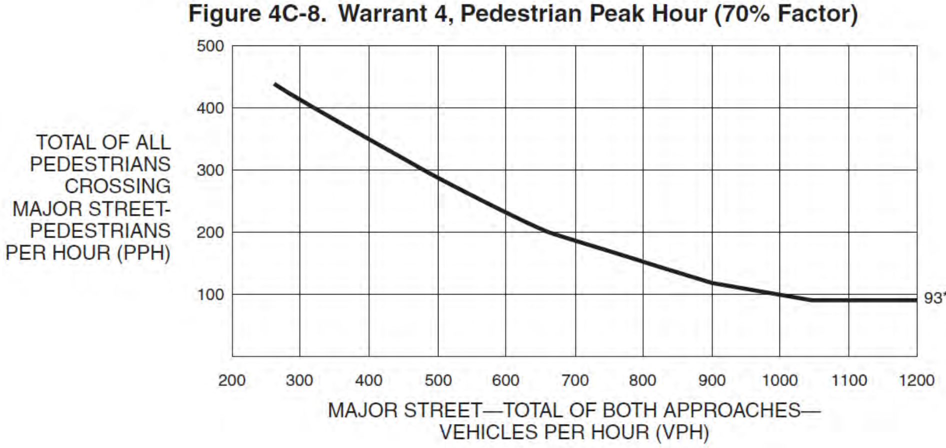
**Warrant Not Met, no pedestrians were observed during the traffic counts.**

**Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)**




*Note: 75 pph applies as the lower threshold volume.

**Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)**




*Note: 93 pph applies as the lower threshold volume.

## Warrant 5, School Crossing

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.

**Warrant Not Met, No school in the vicinity of the intersection.**

## Warrant 6, Coordinated Signal System

The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning. **(Not Applicable)**

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation. **(Not Applicable)**

## Warrant 7, Crash Experience

The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and **(NOT REVIEWED)**

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and **(NOT REVIEWED)**

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 56 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 56 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 70 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours**.** **(NOT REVIEWED)**

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## Warrant 8, Roadway Network

The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or **(Proposed entering volume is 721 vehicles during the AM peak hour)**

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday). **(NOT REVIEWED)**

A major route as used in this signal warrant shall have at least one of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.
B. It includes rural or suburban highways outside, entering, or traversing a city.
C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

**Warrant not met based on condition A**

## Warrant 9, Intersection Near a Grade Crossing

The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and **(NOT MET)**
B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13. **(NOT MET)**

**Warrant not met no railroad crossing in close proximity to the intersection.**

**ACCIDENT ANALYSIS DATA -NYS ROUTE 144 (RIVER ROAD)**

| Accident Date | Accident Time | First Harmful Event | Distance Type | At Intersection | Intersection | No Fatal Injuries | LightConditions | Number Injured | Location of F | Contributing | Road | Property Damage | Reference Marker | Number Killed | Weather Cor | Number Vehicles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/3/2016 | 19:56 | 07 | | Y | READ RD | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021084 | 0 | 2 | 1 |
| 2/13/2016 | 17:46 | 01 | | Y | SIMMONS RD | 0.00 | 5 | 0 | 1 | 18 | RIVER RD | N | 144 11021077 | 0 | 1 | 2 |
| 2/26/2016 | 15:59 | 01 | | Y | NYS THRUWAY | 0.00 | 1 | 0 | 1 | 04 | 1273 RIVER RD | N | 144 11021052 | 0 | 1 | 2 |
| 2/28/2016 | 19:55 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | 144 11021073 | 0 | 2 | 1 |
| 3/21/2016 | 15:13 | 12 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | Y | 144 11021098 | 0 | 2 | 1 |
| 4/8/2016 | 20:27 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021072 | 0 | 1 | 1 |
| 4/17/2016 | 01:00 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1083 RIVER RD | N | | 0 | 1 | 1 |
| 5/14/2016 | 21:18 | 01 | | Y | I 87 CONN | 0.00 | 5 | 0 | 1 | 27 | RIVER RD | Y | 144 11021053 | 0 | 3 | 2 |
| 5/16/2016 | 16:01 | 23 | | Y | BEAVER DAM RD | 0.00 | 1 | 0 | 2 | 26 | SR 144 | Y | 144 11021061 | 0 | 1 | 1 |
| 5/25/2016 | 07:50 | 30 | 1 | N | | 0.00 | 1 | 1 | 1 | 08 | RIVER RD | Y | 144 11021067 | 0 | 1 | 1 |
| 6/2/2016 | 17:53 | 01 | | Y | RIVER RD | 0.00 | 1 | 0 | 1 | 09 | EXIT 22 RAMP | N | 144 11021052 | 0 | 1 | 2 |
| 6/5/2016 | 20:29 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | | 0 | 3 | 1 |
| 6/13/2016 | 15:17 | 01 | | Y | I87 RAMP | 0.00 | 1 | 0 | 1 | 04 | RIVER RD | N | | 0 | 1 | 2 |
| 6/16/2016 | 22:37 | 07 | | Y | SIMMONS RD | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021077 | 0 | 1 | 1 |
| 6/30/2016 | 18:31 | 01 | | Y | RIVER RD | 0.00 | 1 | 1 | 1 | 07 | ST RT. 144 | N | | 0 | 1 | 2 |
| 7/8/2016 | 16:20 | 01 | | Y | GIBSON RD | 0.00 | 1 | 1 | 1 | 77 | RIVER RD | Y | 144 11021076 | 0 | 2 | 2 |
| 7/15/2016 | 19:04 | 12 | 2 | N | | 0.00 | 1 | 0 | 1 | 19 | RIVER RD | N | 144 11021089 | 0 | 3 | 1 |
| 7/21/2016 | 07:13 | 07 | | Y | OLD RIVER RD | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021000 | 0 | 1 | 1 |
| 7/26/2016 | 11:27 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021081 | 0 | 1 | 1 |
| 8/28/2016 | 04:36 | 01 | | Y | BARENT WINNE RD | 0.00 | 5 | 1 | 1 | 02 | RIVER RD | N | 144 11021066 | 0 | 1 | 2 |
| 9/8/2016 | 15:15 | 01 | | Y | GLENMONT RD | 0.00 | 1 | 0 | 1 | 05 | RIVER RD | N | 144 11021000 | 0 | 2 | 2 |
| 9/27/2016 | 16:31 | 01 | | Y | HALTER RD | 0.00 | 1 | 0 | 1 | 04 | RIVER RD | N | 144 11021107 | 0 | 1 | 2 |
| 10/4/2016 | 13:50 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 77 | RIVER RD | N | 144 11021079 | 0 | 1 | 2 |
| 10/11/2016 | 21:04 | 23 | 1 | N | | 0.00 | 5 | 0 | 2 | 61 | RIVER RD | N | 144 11021057 | 0 | 1 | 1 |
| 10/13/2016 | 17:39 | 01 | | Y | RIVER RD | 0.00 | 1 | 0 | 1 | 09 | RAMP | N | 144 11021052 | 0 | 2 | 2 |
| 10/25/2016 | 18:01 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | 144 11021074 | 0 | 2 | 1 |
| 10/27/2016 | 15:49 | 23 | 1 | N | | 0.00 | 1 | 0 | 2 | 66 | RIVER RD | N | 144 11021046 | 0 | 5 | 1 |
| 11/9/2016 | 07:08 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 1455 RIVER RD | N | 144 11021046 | 0 | 3 | 1 |
| 11/27/2016 | 03:45 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1019 RIVER RD | N | | 0 | 1 | 1 |
| 12/7/2016 | 22:10 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021064 | 0 | 6 | 1 |
| 12/7/2016 | 13:40 | 12 | 1 | N | | 0.00 | 1 | 0 | 1 | 42 | 1273 RIVER RD | Y | 144 11021054 | 0 | 2 | 1 |
| 12/20/2016 | 07:21 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 822 RIVER RD | N | 144 11021074 | 0 | 1 | 1 |
| 12/30/2016 | 11:22 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 19 | 461 RIVER RD | N | 144 11021092 | 0 | 2 | 2 |
| 1/14/2017 | 14:57 | 11 | | Y | CORNING HILL RD | 0.00 | 1 | 0 | 1 | 27 | RIVER RD | Y | 144 11021114 | 0 | 1 | 1 |
| 1/26/2017 | 16:47 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 09 | RIVER RD | N | 144 11021106 | 0 | 1 | 2 |
| 2/11/2017 | 19:48 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021075 | 0 | 2 | 1 |
| 2/13/2017 | 18:20 | 12 | 1 | N | | 0.00 | 5 | 1 | 1 | 66 | RIVER RD | Y | 144 11021054 | 0 | 4 | 1 |
| 2/13/2017 | 12:49 | 12 | 1 | N | | 0.00 | 1 | 0 | 2 | 66 | RIVER RD | Y | 144 11021054 | 0 | 1 | 1 |
| 2/14/2017 | 00:40 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021099 | 0 | 1 | 1 |
| 2/16/2017 | 10:11 | 04 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021057 | 0 | 1 | 1 |
| 2/20/2017 | 14:04 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 04 | SR 144 | N | 144 11021080 | 0 | 1 | 2 |
| 2/23/2017 | 21:00 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER RD | N | 144 11021100 | 0 | 1 | 2 |
| 3/23/2017 | 08:45 | 01 | | Y | I 87 EXIT RAMP | 0.00 | 1 | 0 | 1 | 07 | RIVER RD | N | 144 11021053 | 0 | 1 | 2 |
| 3/30/2017 | 17:01 | 10 | | Y | HALTER RD | 0.00 | 1 | 0 | 1 | 64 | RIVER RD | N | 144 11021107 | 0 | 2 | 1 |
| 4/10/2017 | 04:59 | 11 | 1 | N | | 0.00 | 5 | 1 | 2 | 06 | 738 RIVER RD | Y | | 0 | 1 | 1 |
| 4/25/2017 | 09:19 | 01 | 1 | N | | 1.00 | 1 | 1 | 1 | 27 | RIVER RD | N | 144 11021074 | 1 | 3 | 2 |
| 5/2/2017 | 15:38 | 01 | | Y | GLENMONT RD | 0.00 | 1 | 0 | 1 | 09 | RIVER RD | N | 144 11021000 | 0 | 2 | 2 |
| 5/18/2017 | 16:00 | 01 | | Y | ANDERS LN | 0.00 | 1 | 2 | 1 | 04 | RIVER RD | N | 144 11021102 | 0 | 1 | 2 |
| 5/27/2017 | 06:09 | 30 | 1 | N | | 0.00 | 1 | 0 | 2 | 21 | 928 RIVER RD | Y | 144 11021071 | 0 | 1 | 1 |
| 6/12/2017 | 17:39 | 01 | | Y | MAPLE AVE | 0.00 | 1 | 0 | 1 | 09 | RIVER RD | N | | 0 | 1 | 2 |
| 6/22/2017 | 12:14 | 17 | | Y | PARKER RD | 0.00 | 1 | 0 | 2 | 04 | RIVER RD | N | 144 11021062 | 0 | 1 | 1 |
| 6/29/2017 | 16:34 | 01 | | Y | RIVER RD | 0.00 | 1 | 2 | 1 | 77 | RIVER RD | N | 144 11021102 | 0 | 2 | 2 |
| 6/30/2017 | 08:08 | 01 | | Y | SR32 | 0.00 | 1 | 3 | 1 | 19 | SR144 | N | 144 11021114 | 0 | 3 | 2 |
| 7/3/2017 | 22:30 | 30 | 1 | N | | 0.00 | 4 | 0 | 2 | 06 | 175 RIVER RD | Y | 144 11021104 | 0 | 1 | 1 |
| 7/10/2017 | 08:26 | 01 | | Y | GIBSON RD | 0.00 | 1 | 2 | 1 | 04 | RIVER RD | N | 144 11021076 | 0 | 1 | 2 |
| 7/15/2017 | 18:47 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER RD | N | 144 11021061 | 0 | 1 | 1 |
| 7/16/2017 | 14:25 | 01 | 2 | N | | 0.00 | 1 | 0 | 1 | 13 | SR 144 | N | 144 11021054 | 0 | 1 | 2 |
| 7/18/2017 | 12:06 | 01 | | Y | SMULTZ ROAD | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021091 | 0 | 1 | 2 |
| 7/26/2017 | 12:08 | 01 | 1 | N | | 0.00 | 1 | 2 | 1 | 04 | RIVER ROAD | N | 32 11041221 | 0 | 1 | 2 |
| 8/9/2017 | 17:00 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 69 | RIVER ROAD | N | 144 11021102 | 0 | 1 | 2 |
| 8/27/2017 | 04:58 | 11 | 1 | N | | 0.00 | 5 | 1 | 2 | 08 | 1489 STATE ROUTE | Y | 144 11021044 | 0 | 1 | 1 |
| 9/18/2017 | 16:34 | 01 | | Y | READ ROAD | 0.00 | 1 | 0 | 1 | 64 | RIVER ROAD | N | 144 11021084 | 0 | 1 | 2 |
| 9/29/2017 | 18:27 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 3 | 0 | 1 | 07 | RIVER ROAD | N | 144 11021053 | 0 | 1 | 2 |
| 10/7/2017 | 19:24 | 01 | | Y | GLENMONT ROAD | 0.00 | 5 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021104 | 0 | 1 | 2 |
| 11/6/2017 | 17:22 | 07 | | Y | PARSONS ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021071 | 0 | 2 | 1 |
| 11/6/2017 | 18:10 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | Y | 144 11021055 | 0 | 2 | 1 |
| 11/11/2017 | 18:10 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 1 |
| 11/16/2017 | 13:27 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 1 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021053 | 0 | 2 | 2 |
| 11/17/2017 | 23:47 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 983 RIVER ROAD | N | 144 11021068 | 0 | 1 | 1 |
| 11/18/2017 | 06:40 | 15 | 1 | N | | 0.00 | 5 | 1 | 2 | 10 | 895 RIVER ROAD | N | 144 11021072 | 0 | 1 | 1 |
| 11/19/2017 | 18:35 | 07 | 1 | N | | 0.00 | 5 | 1 | 1 | 61 | RIVER ROAD | N | 144 11021079 | 0 | 1 | 1 |
| 11/21/2017 | 16:50 | 01 | 1 | N | | 0.00 | 3 | 0 | 1 | 19 | RIVER ROAD | N | 144 11021057 | 0 | 2 | 2 |
| 11/27/2017 | 19:45 | 07 | 1 | N | | 0.00 | 4 | 0 | 1 | 61 | 1480 RIVER ROAD | N | 144 11021044 | 0 | 1 | 1 |
| 11/29/2017 | 17:17 | 07 | | Y | WEMPLE ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021082 | 0 | 2 | 1 |
| 11/30/2017 | 12:51 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 27 | RIVER ROAD | N | 144 11021046 | 0 | 1 | 2 |
| 12/6/2017 | 23:10 | 04 | 1 | N | | 0.00 | 4 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021046 | 0 | 2 | 1 |
| 12/10/2017 | 01:13 | 15 | 1 | N | | 0.00 | 5 | 0 | 1 | 66 | 709 RIVER ROAD | N | 144 11021081 | 0 | 4 | 1 |
| 12/13/2017 | 05:40 | 07 | | Y | OLD RIVER ROAD | 0.00 | 4 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021103 | 0 | 1 | 1 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/15/2017 | 17:22 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021082 | 0 | 2 | 1 |
| 12/17/2017 | 17:30 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021057 | 0 | 1 | 1 |
| 12/22/2017 | 09:09 | 11 | 1 | N | | 0.00 | 1 | 0 | 2 | 24 | RIVER ROAD | Y | 144 11021089 | 0 | 2 | 1 |
| 12/23/2017 | 07:37 | 31 | 1 | N | | 0.00 | 2 | 1 | 1 | 19 | RIVER ROAD | N | 144 11021047 | 0 | 5 | 1 |
| 12/24/2017 | 20:42 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021067 | 0 | 2 | 1 |
| 1/1/2018 | 13:52 | 15 | 2 | N | | 0.00 | 1 | 0 | 2 | 11 | 822 SR 144 | N | 144 11021076 | 0 | 1 | 1 |
| 1/2/2018 | 07:29 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 66 | RIVER RD | N | | 0 | 2 | 2 |
| 1/3/2018 | 09:15 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | N | 144 11021102 | 0 | 2 | 2 |
| 1/3/2018 | 21:54 | 07 | | Y | HALTER ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021107 | 0 | 1 | 1 |
| 1/5/2018 | 13:04 | 30 | 1 | N | | 0.00 | 1 | 0 | 2 | 26 | 783 RIVER ROAD | Y | 144 11021077 | 0 | 1 | 1 |
| 1/8/2018 | 03:56 | 15 | 2 | N | | 0.00 | 5 | 0 | 2 | 05 | 461 RIVER ROAD | N | 144 11021094 | 0 | 1 | 1 |
| 1/11/2018 | 11:59 | 01 | | Y | OLD RIVER ROAD | 0.00 | 1 | 1 | 1 | 04 | RIVER ROAD | N | 144 11021104 | 0 | 2 | 2 |
| 1/13/2018 | 05:57 | 15 | 1 | N | | 0.00 | 5 | 0 | 1 | 66 | RIVER ROAD | N | 144 11021112 | 0 | 5 | 1 |
| 1/16/2018 | 17:16 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | 822 RIVER ROAD | N | 144 11021073 | 0 | 2 | 1 |
| 1/19/2018 | 02:15 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 1 |
| 1/23/2018 | 06:15 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021048 | 0 | 3 | 1 |
| 2/7/2018 | 11:21 | 11 | 1 | N | | 0.00 | 1 | 0 | 2 | 13 | RIVER ROAD | N | 144 11021081 | 0 | 4 | 1 |
| 2/10/2018 | 15:22 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | N | 144 11021082 | 0 | 2 | 2 |
| 2/18/2018 | 08:07 | 12 | 1 | N | | 0.00 | 1 | 1 | 1 | 66 | SR 144 | N | 144 11021099 | 0 | 2 | 1 |
| 2/22/2018 | 16:08 | 11 | 1 | N | | 0.00 | 1 | 0 | 2 | 66 | RIVER ROAD | Y | 144 11021069 | 0 | 4 | 1 |
| 3/7/2018 | 15:57 | 30 | | Y | SIMMONS RD | 0.00 | 1 | 0 | 1 | 66 | RIVER ROAD | Y | 144 11021077 | 0 | 4 | 1 |
| 3/7/2018 | 16:33 | 01 | | Y | GLENMONT ROAD | 0.00 | 1 | 0 | 1 | 66 | RIVER ROAD | N | 144 11021104 | 0 | 4 | 2 |
| 3/10/2018 | 02:50 | 15 | 1 | N | | 0.00 | 5 | 0 | 1 | 08 | RIVER ROAD | Y | 144 11021048 | 0 | 1 | 1 |
| 4/17/2018 | 15:18 | 01 | | Y | GLENMONT ROAD | 0.00 | 1 | 4 | 1 | 07 | RIVER ROAD | N | 144 11021104 | 0 | 2 | 2 |
| 4/26/2018 | 16:30 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | Y | 144 11021051 | 0 | 1 | 2 |
| 6/9/2018 | 08:01 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | SR 144 | N | 144 11021063 | 0 | 1 | 1 |
| 6/9/2018 | 14:38 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 09 | SR 144 | N | 144 11021069 | 0 | 2 | 2 |
| 6/11/2018 | 08:55 | 01 | 2 | N | | 0.00 | 1 | 0 | 1 | 13 | RIVER ROAD | N | 144 11021093 | 0 | 1 | 2 |
| 6/11/2018 | 10:00 | 01 | | Y | RIVER ROAD | 0.00 | 1 | 0 | 1 | 09 | 1275 RIVER RD ROU | N | 144 11021053 | 0 | 1 | 2 |
| 6/14/2018 | 18:58 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021111 | 0 | 1 | 1 |
| 6/20/2018 | 07:40 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 18 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 2 |
| 6/20/2018 | 15:07 | 01 | | Y | EXIT 22 RAMP | 0.00 | 1 | 0 | 1 | 77 | RIVER ROAD/EXIT 2 | N | 144 11021052 | 0 | 2 | 2 |
| 7/3/2018 | 10:28 | 01 | | Y | INTERSTATE 87 NYS THI | 0.00 | 1 | 0 | 1 | 07 | SR 144 | N | 144 11021053 | 0 | 1 | 2 |
| 7/5/2018 | 05:18 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 593 RIVER ROAD | N | 144 11021086 | 0 | 1 | 1 |
| 8/23/2018 | 08:26 | 01 | | Y | BARENT WINNE RD | 0.00 | 1 | 2 | 1 | 09 | 1021 RIVER RD | N | 144 11021066 | 0 | 1 | 2 |
| 8/25/2018 | 20:16 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 1 |
| 8/27/2018 | 15:00 | 01 | | Y | BARENT WINNE RD | 0.00 | 1 | 4 | 1 | 77 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 2 |
| 9/9/2018 | 19:33 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021074 | 0 | 2 | 1 |
| 9/12/2018 | 11:52 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021063 | 0 | 2 | 2 |
| 9/14/2018 | 09:48 | 01 | | Y | GLENMONT RD | 0.00 | 1 | 0 | 1 | 69 | RIVER RD | N | 144 11021104 | 0 | 2 | 2 |
| 9/18/2018 | 12:16 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021102 | 0 | 2 | 2 |
| 9/22/2018 | 20:41 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1370 RIVER ROAD | N | 144 11021051 | 0 | 2 | 1 |
| 9/28/2018 | 00:12 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | 1021 RIVER RD | N | 144 11021066 | 0 | 3 | 1 |
| 10/5/2018 | 19:13 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 1 |
| 10/9/2018 | 16:24 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 1 | 0 | 1 | 18 | RIVER ROAD | N | 144 11021053 | 0 | 1 | 2 |
| 10/16/2018 | 22:08 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021047 | 0 | 1 | 1 |
| 10/16/2018 | 22:01 | 12 | 1 | N | | 0.00 | 5 | 0 | 2 | 02 | RIVER ROAD | Y | 144 11021080 | 0 | 1 | 1 |
| 10/20/2018 | 03:14 | 23 | 2 | N | | 0.00 | 5 | 0 | 2 | 02 | 380 RIVER ROAD | Y | 144 11021097 | 0 | 2 | 1 |
| 10/20/2018 | 22:48 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | 552 RIVER ROAD | N | 144 11021088 | 0 | 2 | 1 |
| 10/23/2018 | 13:10 | 01 | | Y | BASK RD (TR) | 0.00 | 1 | 0 | 1 | 77 | SR 144 | N | 144 11021088 | 0 | 2 | 2 |
| 10/26/2018 | 03:18 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | SR 144 | N | 144 11021075 | 0 | 2 | 1 |
| 10/29/2018 | 06:50 | 07 | 1 | N | | 0.00 | 2 | 0 | 1 | 61 | SR144 | N | 144 11021052 | 0 | 3 | 1 |
| 10/29/2018 | 18:22 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021049 | 0 | 1 | 1 |
| 11/1/2018 | 18:32 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021085 | 0 | 1 | 1 |
| 11/1/2018 | 18:32 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021085 | 0 | 1 | 1 |
| 11/15/2018 | 19:27 | 14 | 1 | N | | 0.00 | 5 | 0 | 2 | 66 | 1332 RIVER ROAD | Y | 144 11021051 | 0 | 4 | 1 |
| 11/24/2018 | 13:22 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | SR 144 | N | 144 11021098 | 0 | 2 | 1 |
| 11/24/2018 | 13:22 | 07 | 1 | N | | 0.00 | 1 | 1 | 1 | 61 | SR 144 | N | 144 11021099 | 0 | 2 | 1 |
| 11/26/2018 | 16:55 | 07 | 2 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021073 | 0 | 3 | 1 |
| 11/28/2018 | 16:52 | 07 | | Y | SMULTZ ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021091 | 0 | 1 | 1 |
| 11/28/2018 | 21:36 | 07 | | Y | BARENT WINNE ROAD | 0.00 | 4 | 0 | 1 | 61 | RIVER RD | N | 144 11021066 | 0 | 1 | 1 |
| 11/29/2018 | 08:40 | 01 | | Y | LYONS ROAD | 0.00 | 1 | 0 | 1 | 07 | RIVER ROAD | N | 144 11021064 | 0 | 1 | 2 |
| 12/6/2018 | 18:30 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021046 | 0 | 1 | 1 |
| 12/26/2018 | 18:47 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021058 | 0 | 1 | 1 |
| 1/8/2019 | 17:14 | 07 | 1 | N | | 0.00 | 5 | 1 | 1 | 61 | 963 RIVER RD. | N | 144 11021068 | 0 | 3 | 1 |
| 1/14/2019 | 17:26 | 07 | 1 | N | | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021068 | 0 | 2 | 1 |
| 1/21/2019 | 09:21 | 07 | | Y | DINMORE RD | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021063 | 0 | 2 | 1 |
| 1/31/2019 | 09:00 | 01 | | Y | WEMPLE ROAD | 0.00 | 1 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021081 | 0 | 1 | 2 |
| 2/5/2019 | 17:39 | 07 | | Y | READ ROAD | 0.00 | 5 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021084 | 0 | 1 | 1 |
| 2/8/2019 | 10:05 | 01 | | Y | CORNING HILL ROAD | 0.00 | 1 | 1 | 1 | 07 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 2 |
| 2/11/2019 | 06:45 | 07 | 2 | N | | 0.00 | 2 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021070 | 0 | 2 | 1 |
| 2/13/2019 | 10:19 | 22 | 1 | N | | 0.00 | 1 | 1 | 2 | 66 | RIVER ROAD | N | 144 11021046 | 0 | 2 | 1 |
| 2/15/2019 | 16:34 | 01 | | Y | EXIT 22 | 0.00 | 1 | 0 | 1 | 04 | RAMP FROM EXIT 2 | N | 144 11021053 | 0 | 1 | 2 |
| 2/27/2019 | 16:49 | 34 | 1 | N | | 0.00 | 1 | 0 | 1 | 19 | RIVER ROAD | N | 144 11021087 | 0 | 4 | 1 |
| 3/9/2019 | 20:00 | 16 | 1 | N | | 0.00 | 5 | 0 | 2 | 03 | REAR PARKING LOT | Y | | 0 | 9 | 1 |
| 3/14/2019 | 07:14 | 04 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 1424 RIVER ROAD | N | 144 11021047 | 0 | 2 | 1 |
| 4/6/2019 | 13:49 | 01 | 1 | N | | 0.00 | 1 | 2 | 1 | 77 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 2 |
| 4/6/2019 | 13:49 | 01 | 1 | N | | 0.00 | 1 | 2 | 1 | 27 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 2 |
| 4/23/2019 | 12:30 | 01 | 1 | N | | 0.00 | 1 | 0 | 1 | 04 | RIVER ROAD | N | 144 11021092 | 0 | 1 | 2 |
| 5/10/2019 | 04:15 | 15 | 1 | N | | 0.00 | 4 | 0 | 1 | 64 | 495 RIVER RD | N | 144 11021089 | 0 | 2 | 1 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/13/2019 | 15:32 | 15 | 1 | N | | 0.00 | 1 | 1 | 2 | 10 | 1370 RIVER ROAD | Y | 144 11021050 | 0 | 3 | 1 |
| 5/24/2019 | 13:28 | 01 | | Y | LYONS ROAD | 0.00 | 1 | 3 | 1 | 07 | 1074 RIVER RD | N | 144 11021064 | 0 | 2 | 2 |
| 5/31/2019 | 21:14 | 01 | | Y | GLENMONT RD | 0.00 | 5 | 0 | 1 | 09 | RIVER ROAD | N | 144 11021104 | 0 | 1 | 2 |
| 6/5/2019 | 18:17 | 01 | | Y | INTERSTATE 87 CONN | 0.00 | 1 | 2 | 1 | 07 | RIVER ROAD | N | 144 11021053 | 0 | 2 | 2 |
| 6/7/2019 | 16:03 | 23 | 1 | N | | 0.00 | 1 | 0 | 2 | 13 | RIVER ROAD | Y | 144 11021087 | 0 | 1 | 1 |
| 6/9/2019 | 15:20 | 03 | | Y | BARENT WINNE ROAD | 0.00 | 1 | 1 | 1 | 14 | RIVER ROAD | N | 144 11021066 | 0 | 1 | 2 |
| 6/10/2019 | 18:25 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 1111 RIVER ROAD | N | 144 11021062 | 0 | 3 | 1 |
| 6/15/2019 | 19:05 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 32 11041221 | 0 | 2 | 1 |
| 6/17/2019 | 15:42 | 23 | 1 | N | | 0.00 | 1 | 1 | 2 | 19 | RIVER ROAD | Y | 144 11021053 | 0 | 1 | 1 |
| 6/17/2019 | 14:52 | 01 | 2 | N | | 0.00 | 1 | 2 | 1 | 07 | RIVER ROAD | N | 144 11021076 | 0 | 1 | 2 |
| 6/23/2019 | 21:13 | 18 | 1 | N | | 0.00 | 4 | 0 | 1 | 04 | AREA OF 495 RIVER | Y | 144 11021090 | 0 | 1 | 1 |
| 6/24/2019 | 17:02 | 01 | | Y | NEW STATE THRUWAY | 0.00 | 1 | 2 | 1 | 07 | RIVER ROAD | N | | 0 | 2 | 2 |
| 7/2/2019 | 05:54 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | 79 RIVER ROAD | N | 144 11021108 | 0 | 2 | 1 |
| 7/2/2019 | 18:22 | 07 | 1 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021075 | 0 | 1 | 1 |
| 7/5/2019 | 05:47 | 04 | 1 | N | | 0.00 | 2 | 0 | 1 | 61 | 1255 SR 144 | N | | 0 | 1 | 1 |
| 7/14/2019 | 09:00 | 12 | | Y | WEMPLE RD | 0.00 | 1 | 0 | 1 | 26 | RIVER ROAD | N | 144 11021082 | 0 | 1 | 1 |
| 7/24/2019 | 12:55 | 01 | | Y | CORNING HILL ROAD | 0.00 | 1 | 0 | 1 | 07 | RIVER ROAD | N | 32 11041221 | 0 | 1 | 2 |
| 7/31/2019 | 09:40 | 01 | | Y | WHEELER RD | 0.00 | 1 | 1 | 1 | 09 | RIVER ROAD | N | 144 11021087 | 0 | 2 | 2 |
| 8/13/2019 | 15:01 | 01 | | Y | ANDERS LANE | 0.00 | 1 | 0 | 1 | 69 | RIVER ROAD | N | 144 11021102 | 0 | 2 | 2 |
| 9/3/2019 | 17:18 | 01 | | Y | RAMP I87 EXCHANGE | 0.00 | 1 | 3 | 1 | 07 | RIVER ROAD | N | 144 11021053 | 0 | 1 | 2 |
| 9/6/2019 | 17:32 | 07 | 2 | N | | 0.00 | 1 | 0 | 1 | 61 | RIVER ROAD | N | 144 11021096 | 0 | 1 | 1 |
| 9/11/2019 | 15:33 | 01 | 1 | N | | 0.00 | 1 | 1 | 1 | 09 | RIVER ROAD | N | 144 11021092 | 0 | 1 | 2 |
| 9/15/2019 | 15:15 | 15 | 1 | N | | 0.00 | 1 | 1 | 1 | 04 | 1119 RIVER ROAD | Y | 144 11021061 | 0 | 1 | 1 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Existing AM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 2625 | 1316 |
| Peak Hour Factor (PHF) | 0.88 | 0.93 |
| Total Trucks, % | 2.70 | 2.60 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.974 | 0.975 |
| Flow Rate ($v_i$), pc/h | 3063 | 1451 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.67 | 0.66 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 27.0 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.368 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 1474.4 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 1195 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 49.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.610 | Outer Lanes Freeway Speed ($S_O$), mi/h | 52.0 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 1868 | Ramp Junction Speed (S), mi/h | 50.4 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 3319 | Average Density (D), pc/mi/ln | 29.9 |
| Level of Service (LOS) | C | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Existing PM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 1414 | 761 |
| Peak Hour Factor (PHF) | 0.93 | 0.89 |
| Total Trucks, % | 1.13 | 2.89 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.989 | 0.972 |
| Flow Rate ($v_i$), pc/h | 1537 | 880 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.36 | 0.40 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 15.4 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.283 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 760.8 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 624 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 51.0 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.594 | Outer Lanes Freeway Speed ($S_O$), mi/h | 54.1 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 913 | Ramp Junction Speed (S), mi/h | 51.8 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 1793 | Average Density (D), pc/mi/ln | 15.6 |
| Level of Service (LOS) | B | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Existing AM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 2707 | 1316 |
| Peak Hour Factor (PHF) | 0.88 | 0.93 |
| Total Trucks, % | 5.43 | 2.60 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.948 | 0.975 |
| Flow Rate ($v_i$), pc/h | 3245 | 1451 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.70 | 0.66 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 27.9 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.380 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 1474.4 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 1266 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 49.8 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.610 | Outer Lanes Freeway Speed ($S_O$), mi/h | 51.7 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 1979 | Ramp Junction Speed (S), mi/h | 50.3 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 3430 | Average Density (D), pc/mi/ln | 31.1 |
| Level of Service (LOS) | C | | |

# HCS7 Freeway Merge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | TCH | Date | 10-3-2019 |
| Agency | McFarland Johnson | Analysis Year | 2019 |
| Jurisdiction | | Time Period Analyzed | Existing PM |
| Project Description | 9W/I-87 Merge with I-787 Northbound | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N) | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 54.5 | 51.0 |
| Segment Length (L) / Acceleration Length ($L_A$), ft | 1500 | 600 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume ($V_i$), veh/h | 1470 | 761 |
| Peak Hour Factor (PHF) | 0.93 | 0.89 |
| Total Trucks, % | 3.95 | 2.89 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 | 0.972 |
| Flow Rate ($v_i$), pc/h | 1643 | 880 |
| Capacity (c), pc/h | 6750 | 2200 |
| Volume-to-Capacity Ratio (v/c) | 0.37 | 0.40 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | - | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 15.9 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1000 | Speed Index ($M_S$) | 0.285 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | 760.8 | Flow Outer Lanes ($v_{OA}$), pc/h/ln | 667 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | 1100 | On-Ramp Influence Area Speed ($S_R$), mi/h | 50.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_{FM}$) | 0.594 | Outer Lanes Freeway Speed ($S_O$), mi/h | 53.9 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 976 | Ramp Junction Speed (S), mi/h | 51.7 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 1856 | Average Density (D), pc/mi/ln | 16.3 |
| Level of Service (LOS) | B | | |


LEGEND

- EXISTING SIGHT DISTANCE (ORIGINAL DRIVEWAY LOCATTION)
- SIGHT DISTANCE AFTER PROPOSED VEGETATION REMOVAL (ORIGINAL DRIVEWAY LOCATION)
- EXISTING SIGHT DISTANCE (ADJUSTED DRIVEWAY LOCATION)
- SIGHT DISTANCE AFTER PROPOSED VEGETATION REMOVAL (ADJUSTED DRIVEWAY LOCATION)

0 100 200 300 FT

SCALE


McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com


PROJECT MILESTONE

TRAFFIC ANALYSIS

| NO. | DATE | DESCRIPTION |
|---|---|---|

CLIENT:

ALBANY PORT DISTRICT COMMISSION

BETHLEHEM, NEW YORK

PROJECT:

PORT OF ALBANY EXPANSION

| | |
|---|---|
| DRAWN | NSO |
| DESIGNED | NSO |
| CHECKED | TCB |
| SCALE | 1"=100' |
| DATE | SEPTEMBER 2019 |
| PROJECT | 18437.00 |



DRAWING TITLE

SIGHT DISTANCE PLAN

DRAWING NUMBER

SD-01

1 OF 1


LEGEND

PROPOSED LANE

PHASE III FULL BUILDOUT INTERSECTION IMPROVEMENTS @ SOUTH PORT ROAD & SOUTH PEARL STREET/ NYS ROUTE 32

0 40 80 120 FT
SCALE


McFarland Johnson
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SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com


PROJECT MILESTONE
TRAFFIC ANALYSIS

| NO. | DATE | DESCRIPTION |
|---|---|---|

CLIENT:
ALBANY PORT DISTRICT COMMISSION
BETHLEHEM, NEW YORK

PROJECT:
PORT OF ALBANY EXPANSION

| | |
|---|---|
| DRAWN | TCH |
| DESIGNED | AJF |
| CHECKED | AJF |
| SCALE | 1"=40' |
| DATE | JANUARY 2020 |
| PROJECT | 18437.00 |



DRAWING TITLE
PROPOSED IMPROVEMENTS

DRAWING NUMBER
IMP-01

# Planned Road Improvements


McFarland Johnson

**CITY OF ALBANY**
**OFFICE OF THE MAYOR**
24 EAGLE STREET
ALBANY, NEW YORK 12207
TELEPHONE (518) 434-5100
WWW.ALBANYNY.GOV

**KATHY SHEEHAN**
MAYOR

March 11, 2020

Mr. John Smolinsky
Chairman, Town of Bethlehem Planning Board
Town Hall
445 Delaware Avenue
Delmar, NY 129054

Re: Port of Albany Expansion

Dear Chairman Smolinsky,

I write to you regarding the proposed Port of Albany expansion project currently before your board. I am aware of representations made during your most recent board meeting regarding residents at Ezra Prentice in Albany. The individual who made those statements is not a resident of Ezra Prentice, nor is he active in the work we continue to undertake alongside the Albany Housing Authority and the residents of Ezra Prentice.

The City and Housing Authority have worked closely with the New York State Department of Environmental Conservation and New York State Department of Transportation to complete an air quality study and traffic study along South Pearl Street, including adjacent to the Ezra Prentice community. During the initial phase of those studies, it was clear that localized truck traffic was increasing the level of particulates found in the air near Ezra Prentice. Based on that information, the City worked closely with local businesses to voluntarily reroute truck traffic through the Port of Albany along the interior port road – thus reducing truck traffic along South Pearl Street adjacent to the Ezra Prentice community by more than 30%.

While many activists from outside Ezra Prentice have suggested (and even demanded) we displace Ezra Prentice residents from their homes, the City and the Housing Authority continue to work closely with the residents of Ezra Prentice and their tenant's association President to determine what the residents want. To that end, a group of Ezra residents are developing a survey for their fellow residents to ensure their voices are heard. This survey is intended to be a tool for residents to express what they believe should be the next steps for the future of their community. It is initiatives like this that we believe are so important to ensuring we are obtaining residents' input and protecting their interests.

We have also worked with the Port of Albany to ensure their proposed expansion has a positive effect on the Ezra Prentice community and Albany's South End. This project will accelerate the creation of an improved interior port road that would allow the City, State Department of Transportation, and Capital District Transportation Committee to de-designate South Pearl Street as a truck route – putting the City in a position to be able to ban through truck traffic along the corridor adjacent to Ezra Prentice. This project would also create an estimated 700 to 1,600 jobs that would be available to the residents of Ezra Prentice and Albany's South End.

With the elimination of truck traffic on South Pearl Street and the creation of hundreds of jobs, the Port expansion would provide the very stimulus the South End of Albany needs to attract residents and amenities that would benefit the entire community. Because of these factors, I support the proposed expansion to the Port of Albany.

We will continue to work with the Housing Authority, State Agencies, Port, and most importantly, the residents of Ezra Prentice to ensure we are protecting our residents' interests. Please do not hesitate to reach out to me should you have any additional questions.

Sincerely,

Kathy M. Sheehan
Mayor, City of Albany

Cc. Hon. Neil Breslin, New York State Senator
Hon. Patricia Fahy, New York State Assemblymember
Hon. John McDonald, New York State Assemblymember
Hon. Daniel McCoy, Albany County Executive
Hon. Dorcey Applyrs, City of Albany Chief City Auditor
Hon. Sonia Frederick, City of Albany Common Council Member
Hon. Derek Johnson, City of Albany Common Council Member
Steve Longo, Executive Director, Albany Housing Authority
Richard Hendrick, Executive Director, Port of Albany

# PAVEMENT EVALUATION REPORT

**FOR THE**

# PORT OF ALBANY
# EXISTING ROADWAYS

# RAFT STREET AND PORT STREET / NORMANSKILL STREET

**March 2020**

*PREPARED FOR:*

**Albany Port District Commission**

*PREPARED BY:*

McFarland Johnson

**60 RAILROAD PLACE**
**SUITE 402**
**SARATOGA SPRINGS, NY 12866**
**PH: (518) 580-9380**
**FX: (518) 580-9383**

## Methodology

A  pavement condition inventory was performed on the following City of Albany roads within the Port of Albany District:

Raft Street,
Port Street/Normanskill Street,
South Port Road

See Figure G-01 for the sections of roadway that are scheduled to be upgraded as part of with the Port expansion project (Port Street/Normanskill Street) or the capital improvement project funded by the Federal TIGER Grant (Smith Boulevard).

The roads were inspected in accordance with the New York State Department of Transportation (NYSDOT) Comprehensive Pavement Design Manual – Evaluation of Existing Pavements; Pavement Distress Condition Survey. Following these procedures, the information collected included distress type, distress severity, and distress amount. The section of roadway to be surveyed was broken into lengths approximately 500 feet long and evaluated for distress type, distress severity, and distress amount. The resulting pavement condition was based on the following visual inspection analysis:

Excellent - No surface distress
Good – Surface distress beginning to show
Fair – Surface distress is clearly visible
Poor – Distress is frequent and severe

Based on the length of roadways, the roadway being surveyed was broken into 12 separate sections. Sections 1 through 9 are on the portion of Port Street/Normanskill Street, Sections 10 and 11 are the portion of Raft Street, and Section 12 is the length of South Port Road.

## Inspection Results

Each of the 12 sections were inspected for distress type, severity and amount, as well as features such as curbs, guard rails, railroad crossings, and road width. All section stations as well as existing roadway widths are detailed on Figure G-02. See Appendix A for photographs of each section pavement and field notes.

| Section | Curb | Guardrail | Railroad Crossing | Pavement Condition |
|---|---|---|---|---|
| 1 | N | N | N | Poor |
| 2 | N | N | N | Fair |
| 3 | N | N | N | Fair |
| 4 | N | N | Y | Poor-Fair |
| 5 | Y | N | N | Poor |
| 6 | N | Y | Y | Poor |
| 7 | N | Y | N | Poor |
| 8 | N | N | N | Poor |

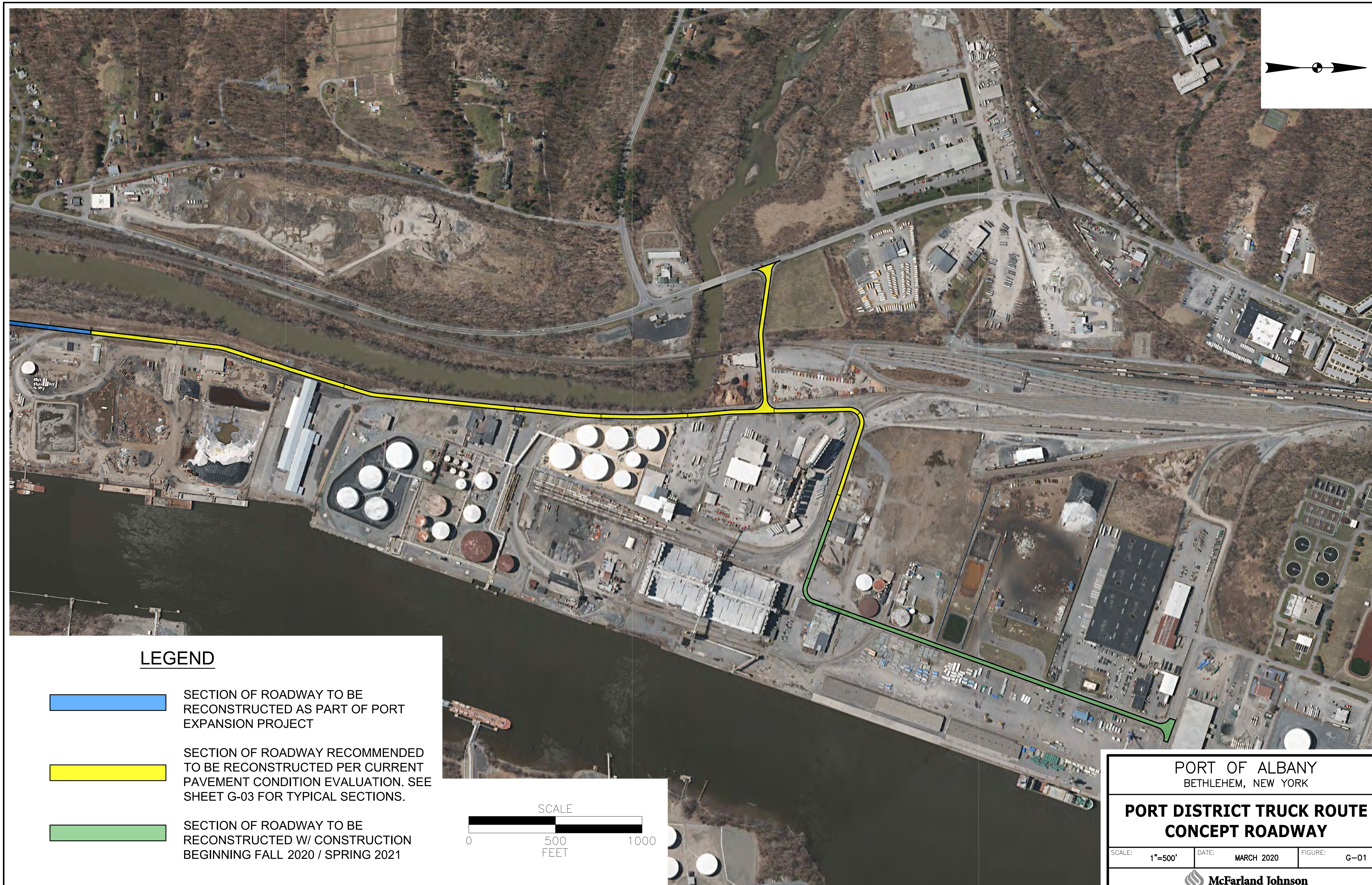
| | | | | |
|---|---|---|---|---|
| 9 | N | N | Y | Fair |
| 10 | N | N | Y | Poor |
| 11 | N | Y | Y | Poor |
| 12 | N | Y | Y | Fair |

It was noted at the time of inspection that all railroad crossings were in fair condition and all trucks were able to complete turns within the existing travel lanes. Therefore, all turning maneuvers are adequate.

**Recommendations**

Based on the inspected sections and the current and proposed use of the roadway system, Sections 1,8,10, and 11 are the highest priority to be restored based on their condition and the frequency of existing and future truck traffic.

All new roadways should be designed to meet at a minimum the typical sections shown on attached Figure G-03. We recommend that all improved roadway sections meet the NYSDOT Design Manual criteria including proper drainage pavement thickness, 12 foot travel lanes with 2 foot shoulders, turning radii to accommodate a WB 67 truck, striping, signage, and installation of DOT standard railroad crossing gates.

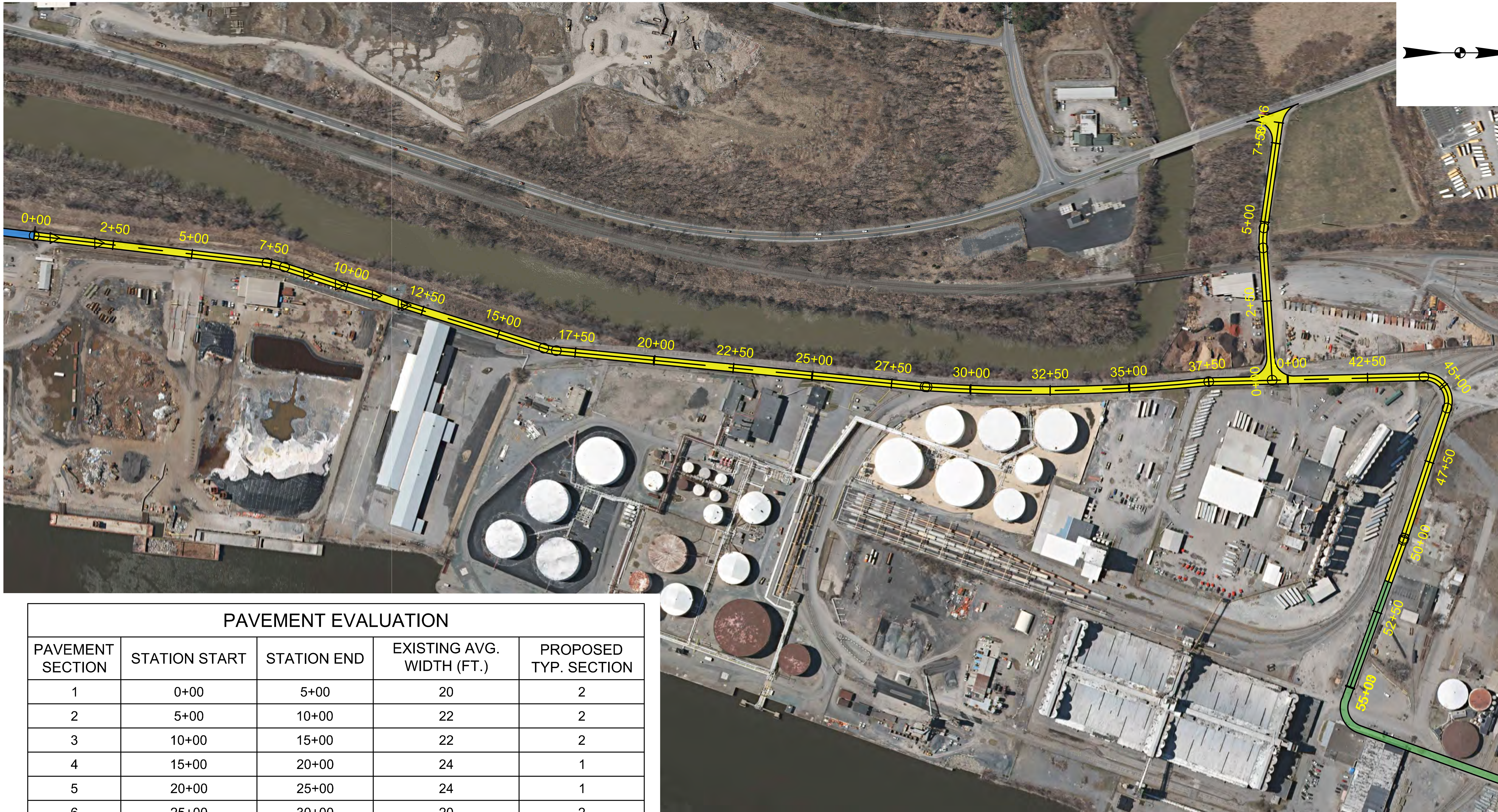



PORT OF ALBANY
BETHLEHEM, NEW YORK

**PORT DISTRICT TRUCK ROUTE CONCEPT ROADWAY**

| SCALE: 1"=500' | DATE: MARCH 2020 | FIGURE: G-01 |
|---|---|---|

McFarland Johnson




| PAVEMENT EVALUATION | | | | |
|---|---|---|---|---|
| PAVEMENT SECTION | STATION START | STATION END | EXISTING AVG. WIDTH (FT.) | PROPOSED TYP. SECTION |
| 1 | 0+00 | 5+00 | 20 | 2 |
| 2 | 5+00 | 10+00 | 22 | 2 |
| 3 | 10+00 | 15+00 | 22 | 2 |
| 4 | 15+00 | 20+00 | 24 | 1 |
| 5 | 20+00 | 25+00 | 24 | 1 |
| 6 | 25+00 | 30+00 | 20 | 2 |
| 7 | 30+00 | 35+00 | 25 | 1 |
| 8 | 35+00 | 40+00 | 24 | 1 |
| 9 | 40+00 | 45+00 | 28 | 1 |
| 10 | 45+00 | 50+00 | 22 | 2 |
| 11 | 50+00 | 55+00 | 20 | 2 |
| 12 | 0+00 | 7+50 | 24 | 1 |

SCALE
0 300 600
FEET

PORT OF ALBANY
BETHLEHEM, NEW YORK

**PORT DISTRICT TRUCK ROUTE CONCEPT ROADWAY**

SCALE: 1"=300' DATE: MARCH 2020 FIGURE: G-02

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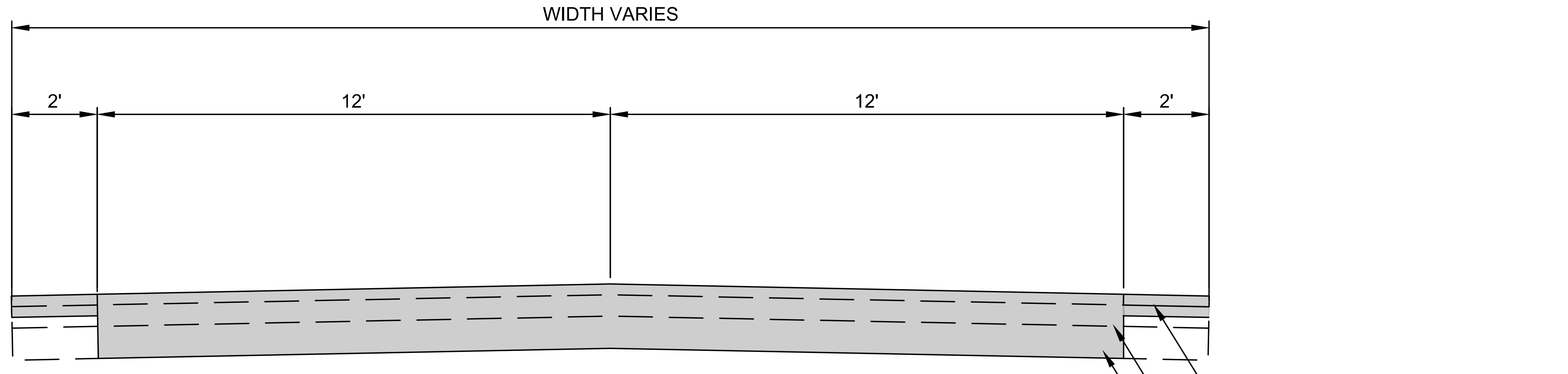
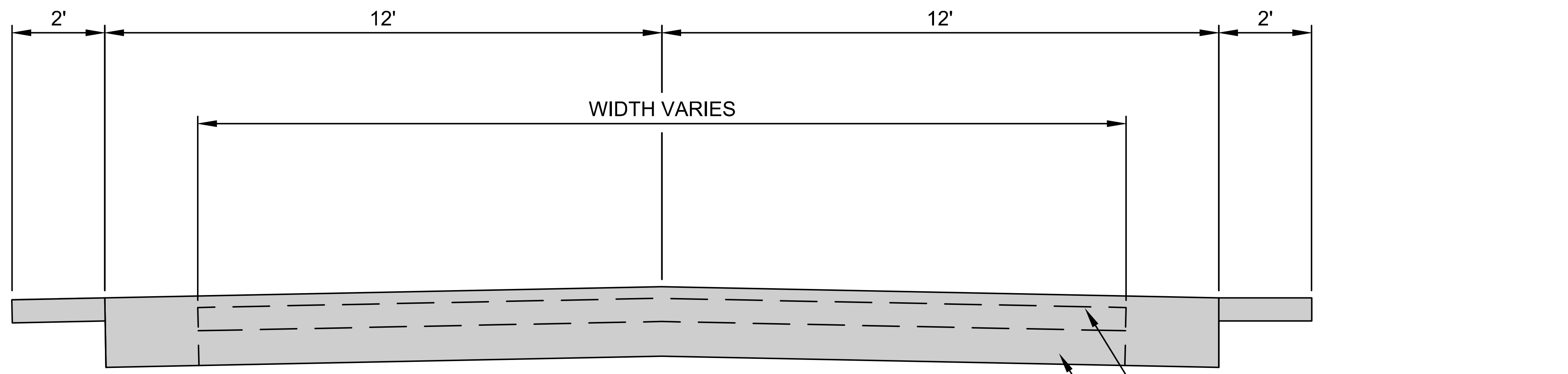



## TYPICAL ROADWAY SECTION 1

EXISTING ROAD WIDTH GREATER THAN 24'




## TYPICAL ROADWAY SECTION 2

EXISTING ROAD WIDTH LESS THAN 24'

NOTE: THE ABOVE TYPICAL ROADWAY SECTIONS ARE CONCEPTUAL IN NATURE. ROADWAY SECTIONS ARE TO BE FINALIZED IN THE DESIGN PHASE OF THE ROADWAY.

PORT OF ALBANY
BETHLEHEM, NEW YORK

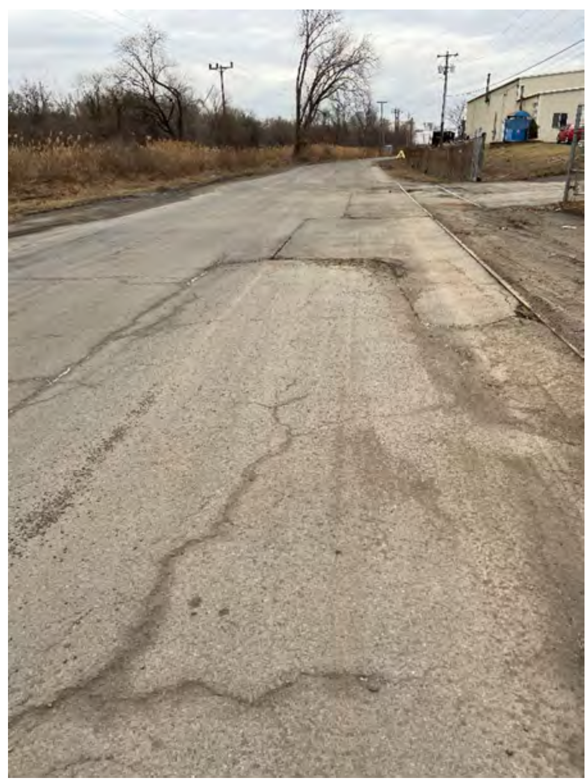
**PORT DISTRICT TRUCK ROUTE**
**CONCEPT ROADWAY**

| SCALE: N.T.S. | DATE: MARCH 2020 | FIGURE: G-03 |
|---|---|---|

McFarland Johnson

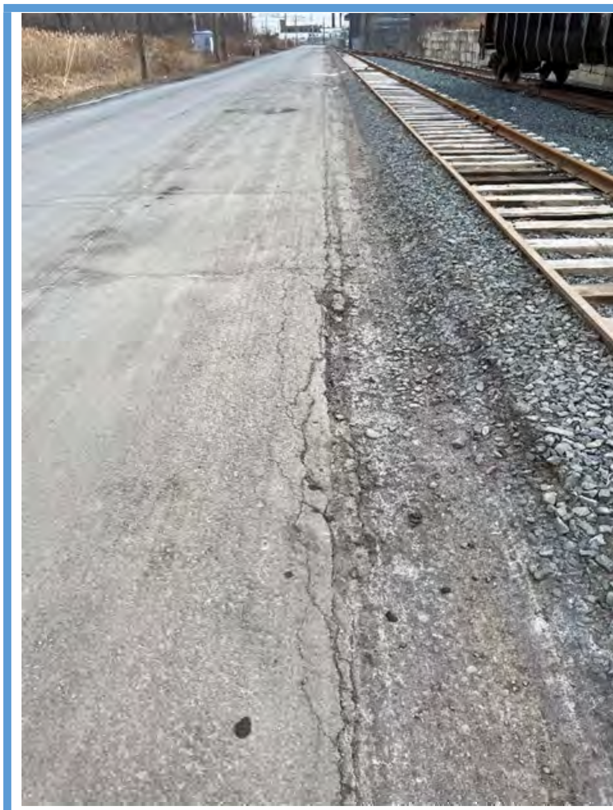
APPENDIX A

## SECTION 1



APPENDIX A

**SECTION 2**



APPENDIX A

## SECTION 3

APPENDIX A

## SECTION 4

APPENDIX A

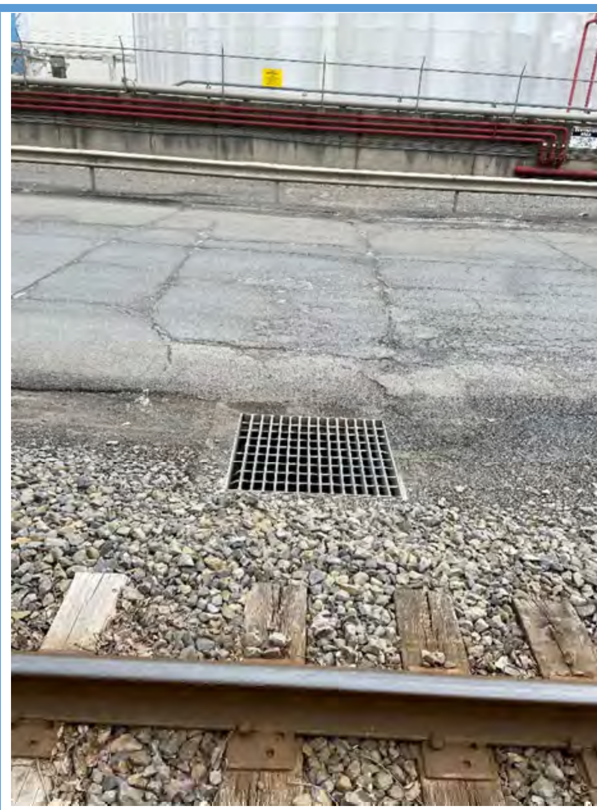
**SECTION 5**

APPENDIX A

## SECTION 6

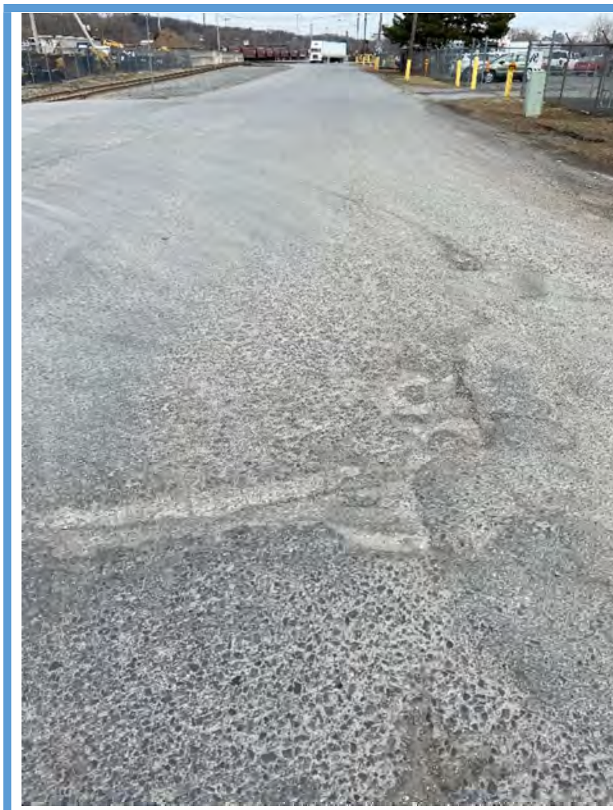

APPENDIX A

## SECTION 7



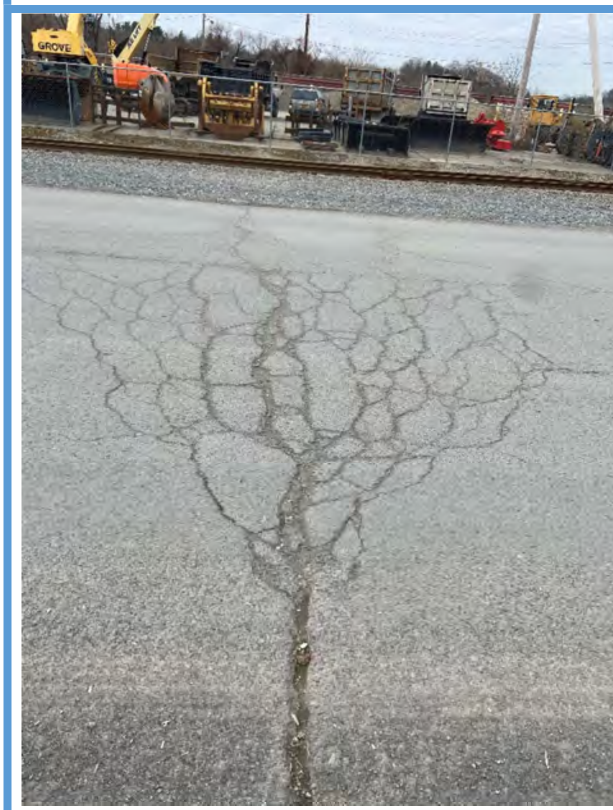
APPENDIX A

## SECTION 8



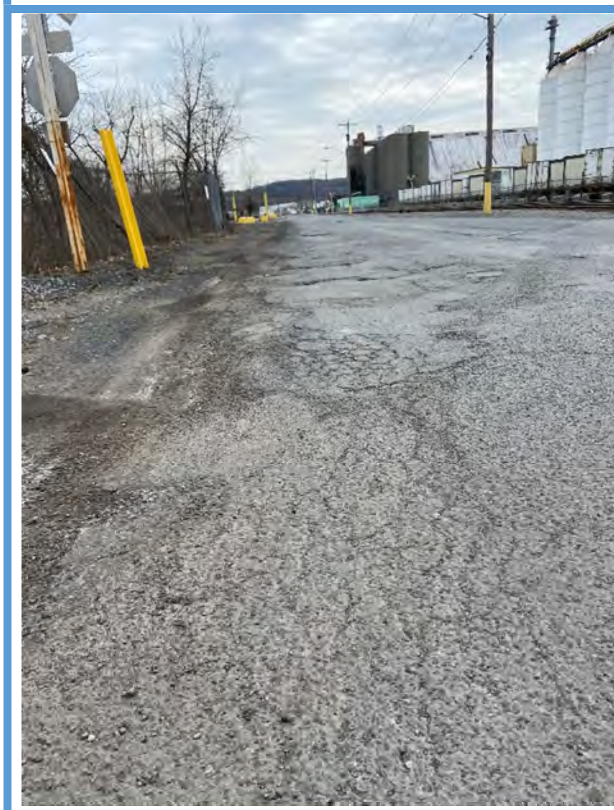
APPENDIX A

## SECTION 9


APPENDIX A

**SECTION 10**

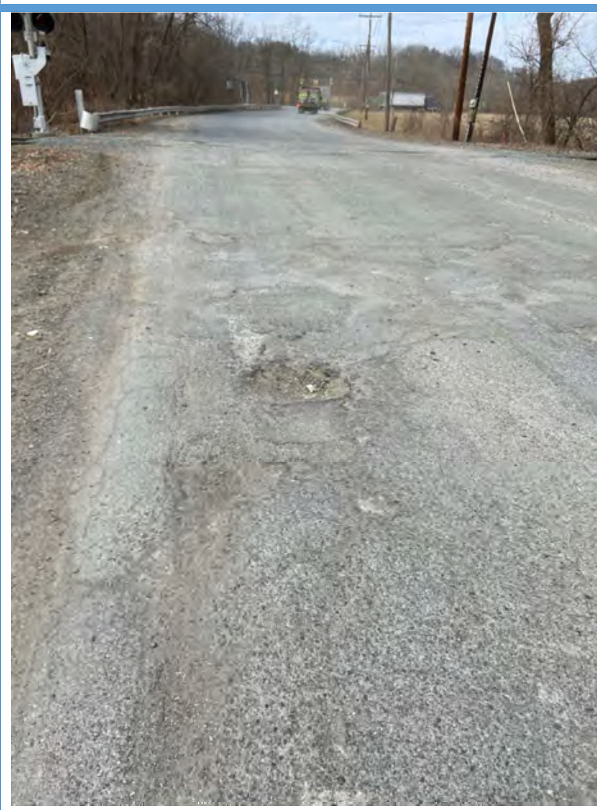


APPENDIX A

**SECTION 11**

APPENDIX A

## SECTION 12

BR-48 (6/90)

**NYSDOT MATERIALS BUREAU**

# DISTRESS DATA FORM

Region __________ County ________________ Route No. __________________ PIN ___________________

PAVEMENT
FLEXIBLE ☐
FLEXIBLE/RIGID ☐

Number of Lanes _______ Survey Pertinent to _________ Lane(s) ___________ Direction _______________

Date Insp. ______________ Inspectors ____________________________________________ Sheet ________ of _________

| DISTRESS | | SEVERITY | SECTION (1) | (2) | (3) | (4) | (5) | EXTENT TOTAL SUM | % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Beginning | 0 | 5 | 10 | 15 | 20 | | | |
| | | Ending | 5 | 10 | 15 | 20 | 25 | | | |
| CORRUGATIONS | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| (%) | P | Present | ~~8~~ AAE | | | | | | | |
| SETTLEMENTS | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| & HEAVES (#) | P | Present | | | | | | | | |
| ASPHALT CONC. | N | None | | | ✓ | ✓ | | | | |
| OVERLAY OR | G | Good | | | | | | | | |
| SPRAY PATCH | F | Fair | 卌 \| | | | | | | | 27'x2' / 8'x2' / 5'x2' / 11'x3' / 24'x3' |
| (#) | P | Poor | \|\|\| | \| | | | \| | | | 20'x5' / 25'x8' / 12'x4' |
| WHEELPATH | N | None | | | ✓ | | ✓ | | | |
| CRACKING | L | Single Crack | | | | | | | | |
| % | M | Multiple Cracks | 9 | 1 | | 2 | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| FULL WIDTH | N | None | | | | ✓ | | | | |
| TRANSVERSE | L | Single Crack | | 卌 \|\|\|\| | 卌 \|\|\| | | \|\|\| | | | |
| CRACKING (#) | M | Multiple Cracks | \| | \| | | \| | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| LONGITUDINAL | N | None | | | | | | | | |
| CRACKING | L | Single Crack | | | | | | | | |
| (%) | M | Multiple Cracks | 10 | | AAE ~~8~~ 9 | 9 | 10 | | | |
| | H | Mult. Cracks w/Potholes | | 2 | | | | | | |
| EDGE | N | None | | | | | | | | |
| CRACKING | L | Single Crack | | | | | | | | |
| (%) | M | Multiple Cracks | 7 ~~8~~ AAE | | 4 | | | | | |
| | H | Mult. Cracks w/Potholes | | 5 | 5 | 4 | AAE ~~5~~ 6 | | | |
| CRACKING | N | None | | | | | | | | |
| OTHER | L | Single Crack | | | | | | | | |
| (%) | M | Multiple Cracks | 10 | 5 | AAE ~~10~~ 9 | 9 | 9 | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| SLIPPAGE | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| CRACKS ☑ | P | Present | | | | | | | | |
| RAVELLING | N | None | ✓ | | ✓ | ✓ | ✓ | | | |
| (%) | P | Present | ✱ AAE | 1 | | | | | | |
| WHEELPATH | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| RUTTING | L | <3/8" | | | | | | | | |
| (MEASURE) ☑ | M | 3/8" - 3/4" | | | | | | | | |
| | H | >3/4" | | | | | | | | |
| WIDENING | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| DROPOFF | L | <3/8" | | | | | | | | |
| (MEASURE) ☑ | M | 3/8" - 3/4" | | | | | | | | |
| | H | >3/4" | | | | | | | | |

SHOULDER SURVEY PERTINENT TO: BOTH ☐ RIGHT ☐ LEFT ☐

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SHOULDER | N | None | | | | | | | | |
| DETERIORATION | L | Single Crack | | | | | | | | |
| ☑ | M | Multiple Cracks | | | | | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| LANE/SHOULDER | N | None | | | | | | | | |
| SEPARATION | L | <1/4" /Sealed | | | | | | | | |
| (MEASURE) ☑ | M | 1/4" - 1" | | | | | | | | |
| | H | >1" | | | | | | | | |
| LANE/SHOULDER | N | None | | | | | | | | |
| DROPOFF | L | <1" | | | | | | | | |
| (MEASURE) ☑ | M | 1" - 2" | | | | | | | | |
| | H | >2" | | | | | | | | |
| SHOULDER | N | None | | | | | | | | |
| DEFORMATION ☑ | P | Present | | | | | | | | |

BR-48 (6/90)

NYSDOT MATERIALS BUREAU

# DISTRESS DATA FORM

Region ________ County ____________ Route No. ______________ PIN ______________

Number of Lanes ______ Survey Pertinent to ________ Lane(s) __________ Direction ______________

PAVEMENT
FLEXIBLE ☐
FLEXIBLE/RIGID ☐

Date Insp. __________ Inspectors ______________________________ Sheet ______ of ______

| DISTRESS | SEVERITY | | SECTION (6) ~~(1)~~ | (7) ~~(2)~~ | (8) ~~(3)~~ | (9) ~~(4)~~ | (10) ~~(5)~~ | EXTENT TOTAL SUM | % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Beginning | 25 | 30 | 35 | 40 | 45 | | | |
| | | Ending | 30 | 35 | 40 | 45 | 50 | | | |
| CORRUGATIONS (%) | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | P | Present | | | | | | | | |
| SETTLEMENTS & HEAVES (#) | N | None | ✓ | ✓ | ✓ | ✓ | | | | |
| | P | Present | | | | | 2 | | | |
| ASPHALT CONC. OVERLAY OR SPRAY PATCH (#) | N | None | | | | | | | | |
| | G | Good | | | | | | | | |
| | F | Fair | | | | \| | | | | |
| | P | Poor | \| | \| | \|\| | \| | \| | | | |
| WHEELPATH CRACKING % | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | | | | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| FULL WIDTH TRANSVERSE CRACKING (#) | N | None | | | | | | | | |
| | L | Single Crack | \| | \| | | \| | ~~\|\|\|\|~~ \| | | | |
| | M | Multiple Cracks | \| | \|\| | \| | \|\| | \| | | | |
| | H | Mult. Cracks w/Potholes | | \|\| | | \| | \| | | | |
| LONGITUDINAL CRACKING (%) | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | 6 | | | | | | | |
| | H | Mult. Cracks w/Potholes | 3 | 10 | 8 | | 10 | | | |
| EDGE CRACKING (%) | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | 5 | | | 2 | 3 | | | |
| | H | Mult. Cracks w/Potholes | 5 | 5 | 6 | 5 | | | | |
| CRACKING OTHER (%) | N | None | | | | | | | | |
| | L | Single Crack | | 3 | ~~8~~ 3 | 3 | 1 | | | |
| | M | Multiple Cracks | 5 | 1 | ~~X~~ | 1 | 7 | | | |
| | H | Mult. Cracks w/Potholes | 5 | | | | 2 | | | |
| SLIPPAGE CRACKS ☑ | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | P | Present | | | | | | | | |
| RAVELLING (%) | N | None | ~~✓~~ | | | ✓ | ✓ | | | |
| | P | Present | 2 | 1 | ~~X~~ 2 | | | | | |
| WHEELPATH RUTTING (MEASURE) ☑ | N | None | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| | L | <3/8" | | | | | | | | |
| | M | 3/8" - 3/4" | | | | | | | | |
| | H | >3/4" | | | | | | | | |
| WIDENING DROPOFF (MEASURE) ☑ | N | None | ✓ | ✓ | ✓ | ✓ | | | | |
| | L | <3/8" | | | | | | | | |
| | M | 3/8" - 3/4" | | | | | | | | |
| | H | >3/4" | | | | | | | | |

SHOULDER SURVEY PERTINENT TO: BOTH ☐ RIGHT ☐ LEFT ☐

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SHOULDER DETERIORATION ☑ | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | | | | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| LANE/SHOULDER SEPARATION (MEASURE) ☑ | N | None | | | | | | | | |
| | L | <1/4" /Sealed | | | | | | | | |
| | M | 1/4" - 1" | | | | | | | | |
| | H | >1" | | | | | | | | |
| LANE/SHOULDER DROPOFF (MEASURE) ☑ | N | None | | | | | | | | |
| | L | <1" | | | | | | | | |
| | M | 1" - 2" | | | | | | | | |
| | H | >2" | | | | | | | | |
| SHOULDER DEFORMATION ☑ | N | None | | | | | | | | |
| | P | Present | | | | | | | | |

BR-48 (6/90)

NYSDOT MATERIALS BUREAU

# DISTRESS DATA FORM

Region _______ County _______ Route No. _______ PIN _______

PAVEMENT: FLEXIBLE ☐ FLEXIBLE/RIGID ☐

Number of Lanes _______ Survey Pertinent to _______ Lane(s) _______ Direction _______

Date Insp. _______ Inspectors _______ Sheet _______ of _______

| DISTRESS | | SEVERITY | SECTION (11) ~~(1)~~ | (12) ~~(2)~~ | (3) | (4) | (5) | EXTENT TOTAL SUM | % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Beginning | 50 | 750' | | | | | | |
| | | Ending | 55 | ↓ | | | | | | |
| CORRUGATIONS (%) | N | None | ✓ | ✓ | | | | | | |
| | P | Present | | | | | | | | |
| SETTLEMENTS & HEAVES (#) | N | None | ✓ | ~~✓~~ NA | | | | | | |
| | P | Present | | 1 | | | | | | |
| ASPHALT CONC. OVERLAY OR SPRAY PATCH (#) | N | None | | ✓ | | | | | | |
| | G | Good | | | | | | | | |
| | F | Fair | | | | | | | | |
| | P | Poor | 1 | | | | | | | |
| WHEELPATH CRACKING % | N | None | ✓ | ✓ | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | | | | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| FULL WIDTH TRANSVERSE CRACKING (#) | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | IIII | | | | | | | |
| | H | Mult. Cracks w/Potholes | IIII | II | | | | | | |
| LONGITUDINAL CRACKING (%) | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | 4 | | | | | | |
| | H | Mult. Cracks w/Potholes | 10 | 4 | | | | | | |
| EDGE CRACKING (%) | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | 4 | | | | | | |
| | H | Mult. Cracks w/Potholes | 10 | 4 | | | | | | |
| CRACKING OTHER (%) | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | 4 | | | | | | |
| | H | Mult. Cracks w/Potholes | 10 | 1 | | | | | | |
| SLIPPAGE CRACKS ☑ | N | None | ✓ | ✓ | | | | | | |
| | P | Present | | | | | | | | |
| RAVELLING (%) | N | None | ✓ | | | | | | | |
| | P | Present | | 6 | | | | | | |
| WHEELPATH RUTTING (MEASURE) ☑ | N | None | ✓ | ✓ | | | | | | |
| | L | <3/8" | | | | | | | | |
| | M | 3/8" - 3/4" | | | | | | | | |
| | H | >3/4" | | | | | | | | |
| WIDENING DROPOFF (MEASURE) ☑ | N | None | ✓ | ✓ | | | | | | |
| | L | <3/8" | | | | | | | | |
| | M | 3/8" - 3/4" | | | | | | | | |
| | H | >3/4" | | | | | | | | |

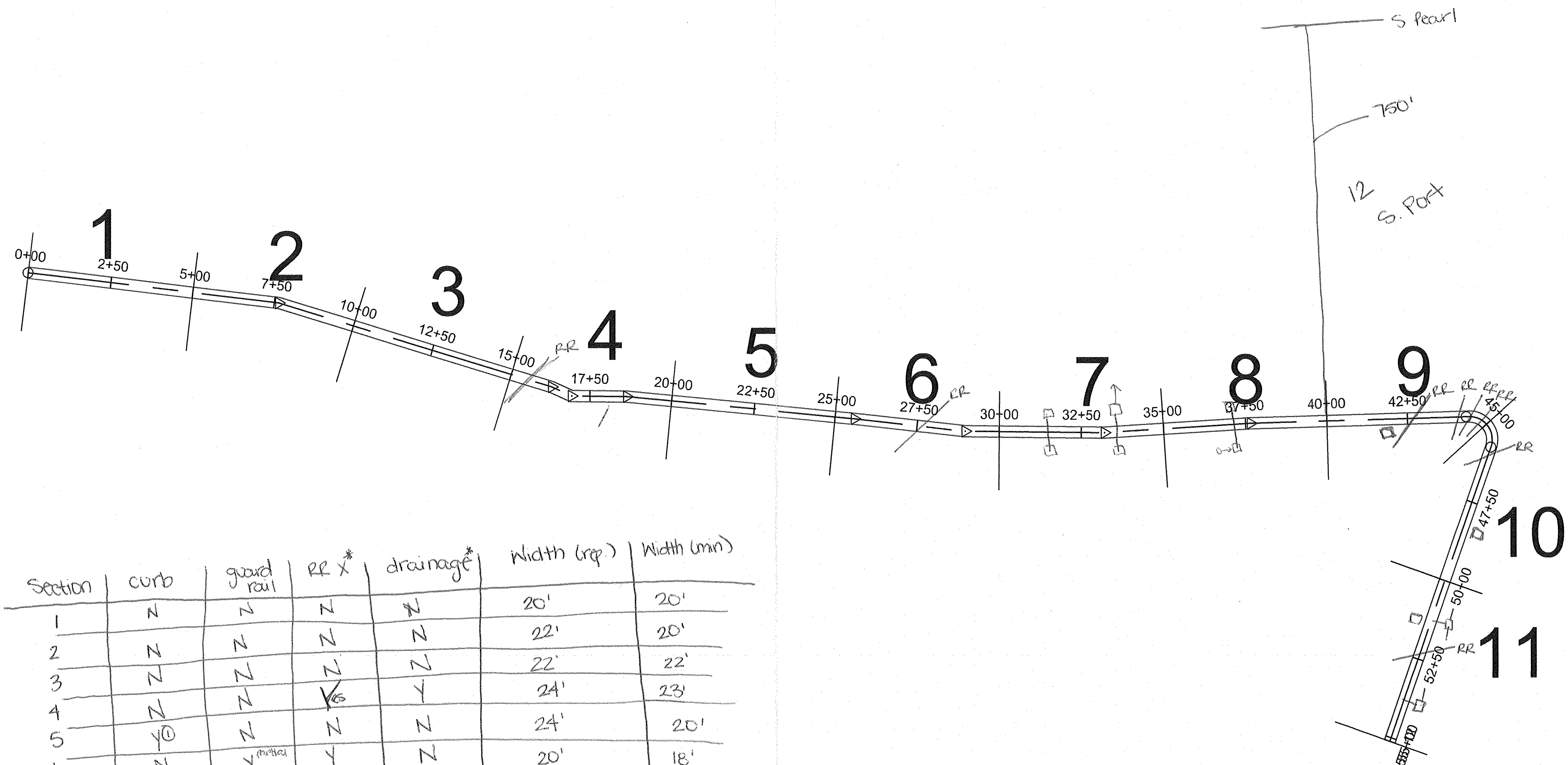
SHOULDER SURVEY PERTINENT TO: BOTH ☐ RIGHT ☐ LEFT ☐

| DISTRESS | | SEVERITY | (1) | (2) | (3) | (4) | (5) | SUM | % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| SHOULDER DETERIORATION ☑ | N | None | | | | | | | | |
| | L | Single Crack | | | | | | | | |
| | M | Multiple Cracks | | | | | | | | |
| | H | Mult. Cracks w/Potholes | | | | | | | | |
| LANE/SHOULDER SEPARATION (MEASURE) ☑ | N | None | | | | | | | | |
| | L | <1/4" /Sealed | | | | | | | | |
| | M | 1/4" - 1" | | | | | | | | |
| | H | >1" | | | | | | | | |
| LANE/SHOULDER DROPOFF (MEASURE) ☑ | N | None | | | | | | | | |
| | L | <1" | | | | | | | | |
| | M | 1" - 2" | | | | | | | | |
| | H | >2" | | | | | | | | |
| SHOULDER DEFORMATION ☑ | N | None | | | | | | | | |
| | P | Present | | | | | | | | |

| Section | | |
|---|---|---|
| 1 | G | Ø |
| | F | 27'x2' / 8'x2' / 5'x2' / 11'x3' / 24'x3' |
| | P | 20'x5' / 25'x8' / 12'x4' |
| 2 | G | Ø |
| | F | Ø |
| | P | 25'x8' |
| 3 | G | Ø |
| | F | Ø |
| | P | Ø |
| 4 | G | Ø |
| | F | Ø |
| | P | Ø |
| 5 | G | Ø |
| | F | Ø |
| | P | 22'x9' |

| Section | |
|---|---|
| 6 | G |
| | F Ø |
| | P 29'x 4' |
| 7 | G Ø |
| | F Ø |
| | P 26'x 12' |
| 8 | G Ø |
| | F Ø |
| | P 6'x2' / 8'x 4' |
| 9 | G Ø |
| | F 3'x 2' |
| | P 107'x11' |
| 10 | G Ø |
| | F Ø |
| | P 14'x3' / 10'x 4' |
| 11 | G Ø |
| | F Ø |
| | P 19'x8' |

① Not on edge of rd. in front of business (B.Term.)
② off set




N = No
Y = yes

| Section | curb | guard rail | RR X* | drainage* | Width (rep.) | Width (min) |
|---|---|---|---|---|---|---|
| 1 | N | N | N | N | 20' | 20' |
| 2 | N | N | N | N | 22' | 20' |
| 3 | N | N | N | N | 22' | 22' |
| 4 | N | N | Yes | Y | 24' | 23' |
| 5 | Y① | N | N | N | 24' | 20' |
| 6 | N | Y (metal) | Y | N | 20' | 18' |
| 7 | N | Y | N | Y | 25' | 24' |
| 8 | N | N | N | Y | 24' | 24' |
| 9 | N | N | Y | Y | 28' | 28' |
| 10 | N | N | Y | Y | 22' | 20' |
| 11 | N | Y② | Y | Y | 20' | 19' |
| 12 | N | Y | Y | N | 24' | 23' |




McFarland Johnson
60 RAILROAD PLACE, SUITE 402
SARATOGA SPRINGS, NY 12866

ALBANY PORT DISTRICT COMMISSION

TOWN OF BETHLEHEM, STATE OF NEW YORK

PORT OF ALBANY EXPANSION
ALTERNATIVE DRIVEWAY CONFIGURATION

| | |
|---|---|
| SCALE: | 1"=40' |
| DRAWN: | TCH |
| CHECKED: | SMB |
| DESIGN: | AJF |
| PROJECT: | 18437.00 |
| DATE: | APRIL 2020 |

1



N:\18437.00 PORT OF ALBANY\DRAW\DRAWINGS\SHEET FILES\18437.00-RIGHT-OUT.DWG