Appendix L

LEVEL OF SERVICE
CALCULATIONS

# LEVEL OF SERVICE CALCULATIONS - APPENDIX L

## EXISTING CONDITION

**NO BUILD CONDITION** **Page**

**BUILD CONDITION** **Page**

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/16/07* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *0* | *1* | *1* | *0* | *2* | | | *2* | *0* |
| Lane Group | | | | | *LT* | *R* | | *LT* | | | *TR* | |
| Volume, V (vph) | | | | *155* | *5* | *388* | *50* | *139* | | | *90* | *53* |
| % Heavy Vehicles, %HV | | | | *3* | *3* | *3* | *1* | *1* | | | *1* | *1* |
| Peak-Hour Factor, PHF | | | | *0.92* | *0.92* | *0.92* | *0.86* | *0.86* | | | *0.92* | *0.92* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | | *2.0* | *2.0* | | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | | *2.0* | *2.0* | | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | | *3* | *3* | | *3* | | | *5* | |
| Unit Extension, UE | | | | | *3.0* | *3.0* | | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | | *1.000* | *1.000* | | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | | *0.0* | *0.0* | | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *230* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | | *12.0* | *12.0* | | *12.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | | *0* | *0* | | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = | G = | G = | G = *12.0* | G = *30.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *70.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | | *173* | *172* | | *220* | | | *156* | |
| Lane Group Capacity, c | | | | | *328* | *293* | | *603* | | | *1457* | |
| v/c Ratio, X | | | | | *0.53* | *0.59* | | *0.36* | | | *0.11* | |
| Total Green Ratio, g/C | | | | | *0.19* | *0.19* | | *0.17* | | | *0.43* | |
| Uniform Delay, $d_1$ | | | | | *25.7* | *26.0* | | *25.6* | | | *12.0* | |
| Progression Factor, PF | | | | | *1.000* | *1.000* | | *1.000* | | | *0.500* | |
| Delay Calibration, k | | | | | *0.13* | *0.18* | | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | | *1.6* | *3.1* | | *0.4* | | | *0.0* | |
| Initial Queue Delay, $d_3$ | | | | | *0.0* | *0.0* | | *0.0* | | | *0.0* | |
| Control Delay | | | | | *27.3* | *29.1* | | *26.0* | | | *6.0* | |
| Lane Group LOS | | | | | *C* | *C* | | *C* | | | *A* | |
| Approach Delay | | | | *28.2* | | | *26.0* | | | *6.0* | | |
| Approach LOS | | | | *C* | | | *C* | | | *A* | | |
| Intersection Delay | *22.7* | | | $X_C$ = *0.28* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/6/2006* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *1* | | *1* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | | *R* | | | |
| Volume, V (vph) | | *91* | *98* | *46* | *547* | | *502* | | *39* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *0* | *0* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.89* | *0.89* | *0.80* | *0.80* | | *0.87* | | *0.87* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | | *5* | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *12.0* | | *12.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | | *3.2* | | | *3.2* | | | *3.2* | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *10.0* | G = | G = | G = *30.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *212* | | *57* | *684* | | *577* | | *45* | | | |
| Lane Group Capacity, c | | *910* | | *772* | *946* | | *715* | | *640* | | | |
| v/c Ratio, X | | *0.23* | | *0.07* | *0.72* | | *0.81* | | *0.07* | | | |
| Total Green Ratio, g/C | | *0.27* | | *0.51* | *0.47* | | *0.40* | | *0.40* | | | |
| Uniform Delay, $d_1$ | | *21.5* | | *9.6* | *16.1* | | *19.9* | | *13.9* | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.556* | | *0.556* | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.28* | | *0.35* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *0.1* | | *0.0* | *2.8* | | *6.8* | | *0.0* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *21.6* | | *9.6* | *18.9* | | *17.9* | | *7.8* | | | |
| Lane Group LOS | | *C* | | *A* | *B* | | *B* | | *A* | | | |
| Approach Delay | *21.6* | | | *18.1* | | | *17.2* | | | | | |
| Approach LOS | *C* | | | *B* | | | *B* | | | | | |
| Intersection Delay | *18.2* | | | $X_C$ = *0.76* | | | Intersection LOS | | | *B* | | |

# SHORT REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6/ Starr* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/7/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Existing Condition* |

**Volume and Timing Input**

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | *DefL* | *TR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume (vph) | *124* | *325* | *107* | *40* | *1112* | *86* | *88* | *24* | *7* | *117* | *94* | *111* |
| % Heavy Vehicles | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* |
| PHF | *0.74* | *0.74* | *0.74* | *0.91* | *0.91* | *0.91* | *0.80* | *0.80* | *0.80* | *0.91* | *0.91* | *0.91* |
| Pretimed/Actuated (P/A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Startup Lost Time | *2.0* | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green | *2.0* | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type | *3* | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension | *3.0* | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Ped/Bike/RTOR Volume | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | *12.0* | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking/Grade/Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking/Hour | | | | | | | | | | | | |
| Bus Stops/Hour | *0* | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Minimum Pedestrian Time | | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | |

| Phasing | EW Perm | EB Only | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *30.0* | G = *4.0* | G = | G = | G = *16.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *65.0*

## Lane Group Capacity, Control Delay, and LOS Determination

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adjusted Flow Rate | *168* | *584* | | | *1361* | | | *149* | | *129* | *225* | |
| Lane Group Capacity | *420* | *1019* | | | *1461* | | | *209* | | *298* | *378* | |
| v/c Ratio | *0.40* | *0.57* | | | *0.93* | | | *0.71* | | *0.43* | *0.60* | |
| Green Ratio | *0.65* | *0.60* | | | *0.46* | | | *0.25* | | *0.25* | *0.25* | |
| Uniform Delay $d_1$ | *17.9* | *7.9* | | | *16.5* | | | *22.4* | | *20.7* | *21.6* | |
| Delay Factor k | *0.11* | *0.17* | | | *0.45* | | | *0.28* | | *0.11* | *0.18* | |
| Incremental Delay $d_2$ | *0.6* | *0.8* | | | *11.0* | | | *10.9* | | *1.0* | *2.5* | |
| PF Factor | *1.000* | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Control Delay | *18.5* | *8.7* | | | *27.6* | | | *33.3* | | *21.7* | *24.2* | |
| Lane Group LOS | *B* | *A* | | | *C* | | | *C* | | *C* | *C* | |
| Approach Delay | *10.9* | | | *27.6* | | | *33.3* | | | *23.3* | | |
| Approach LOS | *B* | | | *C* | | | *C* | | | *C* | | |
| Intersection Delay | *22.5* | | | Intersection LOS | | | | | | *C* | | |

# SHORT REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/28/2006* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Existing Condition* |

**Volume and Timing Input**

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume (vph) | *2* | *78* | *100* | *201* | *6* | *115* | *17* | *740* | *556* | *168* | *265* | *3* |
| % Heavy Vehicles | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* |
| PHF | *0.74* | *0.74* | *0.74* | *0.85* | *0.85* | *0.85* | *0.97* | *0.97* | *0.97* | *0.88* | *0.88* | *0.88* |
| Pretimed/Actuated (P/A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Startup Lost Time | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Ped/Bike/RTOR Volume | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking/Grade/Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking/Hour | | | | | | | | | | | | |
| Bus Stops/Hour | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Minimum Pedestrian Time | | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | |

| Phasing | EW Perm | WB Only | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = *2.0* | G = | G = | G = *33.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis (hrs) = *0.25* | | | | | | Cycle Length C = *70.0* | | |

## Lane Group Capacity, Control Delay, and LOS Determination

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adjusted Flow Rate | | *243* | | *236* | *142* | | | *1354* | | *191* | *304* | |
| Lane Group Capacity | | *341* | | *350* | *411* | | | *1472* | | *344* | *1012* | |
| v/c Ratio | | *0.71* | | *0.67* | *0.35* | | | *0.92* | | *0.56* | *0.30* | |
| Green Ratio | | *0.19* | | *0.33* | *0.29* | | | *0.47* | | *0.61* | *0.57* | |
| Uniform Delay $d_1$ | | *26.7* | | *25.1* | *19.8* | | | *17.3* | | *22.5* | *7.8* | |
| Delay Factor k | | *0.28* | | *0.25* | *0.11* | | | *0.44* | | *0.15* | *0.11* | |
| Incremental Delay $d_2$ | | *6.9* | | *5.1* | *0.5* | | | *9.7* | | *2.0* | *0.2* | |
| PF Factor | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Control Delay | | *33.6* | | *30.2* | *20.3* | | | *26.9* | | *24.5* | *7.9* | |
| Lane Group LOS | | *C* | | *C* | *C* | | | *C* | | *C* | *A* | |
| Approach Delay | *33.6* | | | *26.5* | | | *26.9* | | | *14.3* | | |
| Approach LOS | *C* | | | *C* | | | *C* | | | *B* | | |
| Intersection Delay | *25.0* | | | Intersection LOS | | | | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *AM Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *15* | *162* | | | *490* | *409* | | | | *494* | | *112* |
| % Heavy Vehicles, %HV | *22* | *22* | | | *5* | *5* | | | | *7* | | *7* |
| Peak-Hour Factor, PHF | *0.75* | *0.75* | | | *0.93* | *0.93* | | | | *0.77* | | *0.77* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *236* | | | *527* | *440* | | | | *642* | | *145* |
| Lane Group Capacity, c | | *698* | | | *802* | *1487* | | | | *714* | | *618* |
| v/c Ratio, X | | *0.34* | | | *0.66* | *0.30* | | | | *0.90* | | *0.23* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *14.7* | | | *17.8* | *0.0* | | | | *22.8* | | *15.7* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.11* | | | *0.23* | *0.11* | | | | *0.42* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.3* | | | *2.0* | *0.1* | | | | *14.4* | | *0.2* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *15.0* | | | *19.8* | *0.1* | | | | *37.2* | | *15.9* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *D* | | *B* |
| Approach Delay | *15.0* | | | *10.8* | | | | | | *33.3* | | |
| Approach LOS | *B* | | | *B* | | | | | | *C* | | |
| Intersection Delay | *20.2* | | | $X_C$ = *0.77* | | | Intersection LOS | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *I-84 EB ramps/ Saw Mill Rd* |
| Jurisdiction | *City of Danbury CT* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 Eastbound Ramps* | North/South Street: *Saw Mill Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *116* | *47* | *74* | *169* | |
| Peak-Hour Factor, PHF | *1.00* | *0.89* | *0.89* | *0.96* | *0.96* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *130* | *52* | *77* | *176* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *2* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *69* | *0* | *134* | | | |
| Peak-Hour Factor, PHF | *0.89* | *0.89* | *0.89* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *77* | *0* | *150* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | | *3* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *0* | *0* |
| Configuration | | *LTR* | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | *LTR* | |
| v (veh/h) | | *77* | | | | | *227* | |
| C (m) (veh/h) | | *1393* | | | | | *703* | |
| v/c | | *0.06* | | | | | *0.32* | |
| 95% queue length | | *0.18* | | | | | *1.40* | |
| Control Delay (s/veh) | | *7.7* | | | | | *12.5* | |
| LOS | | *A* | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *12.5* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Dingle/ US Route 6 & 202* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)*

North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *172* | *18* | *13* | *1050* | *2* |
| Peak-Hour Factor, PHF | *0.75* | *0.75* | *0.75* | *0.92* | *0.92* | *0.92* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *229* | *24* | *14* | *1141* | *2* |
| Percent Heavy Vehicles | *5* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *36* | *2* | *18* | *0* | *2* | *1* |
| Peak-Hour Factor, PHF | *0.78* | *0.78* | *0.78* | *0.38* | *0.38* | *0.38* |
| Hourly Flow Rate, HFR (veh/h) | *46* | *2* | *23* | *0* | *5* | *2* |
| Percent Heavy Vehicles | *3* | *3* | *3* | *3* | *3* | *3* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *0* | *14* | | *71* | | | *7* | |
| C (m) (veh/h) | *590* | *1317* | | *349* | | | *165* | |
| v/c | *0.00* | *0.01* | | *0.20* | | | *0.04* | |
| 95% queue length | *0.00* | *0.03* | | *0.75* | | | *0.13* | |
| Control Delay (s/veh) | *11.1* | *7.8* | | *19.3* | | | *27.8* | |
| LOS | *B* | *A* | | *C* | | | *D* | |
| Approach Delay (s/veh) | -- | -- | *19.3* | | | *27.8* | | |
| Approach LOS | -- | -- | *C* | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *13* | *180* | | | *1060* | *7* |
| Peak-Hour Factor, PHF | *0.73* | *0.73* | *1.00* | *1.00* | *0.91* | *0.91* |
| Hourly Flow Rate, HFR (veh/h) | *17* | *246* | *0* | *0* | *1164* | *7* |
| Percent Heavy Vehicles | *5* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *20* | | *52* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.86* | *1.00* | *0.86* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *23* | *0* | *60* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *3* | *0* | *3* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *17* | | | | | | *83* | |
| C (m) (veh/h) | *576* | | | | | | *281* | |
| v/c | *0.03* | | | | | | *0.30* | |
| 95% queue length | *0.09* | | | | | | *1.20* | |
| Control Delay (s/veh) | *11.4* | | | | | | *23.1* | |
| LOS | *B* | | | | | | *C* | |
| Approach Delay (s/veh) | -- | -- | | | | *23.1* | | |
| Approach LOS | -- | -- | | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *193* | *267* | *233* | *901* | |
| Peak-Hour Factor, PHF | *1.00* | *0.75* | *0.75* | *0.92* | *0.92* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *257* | *356* | *253* | *979* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *5* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *313* | | *12* | | | |
| Peak-Hour Factor, PHF | *0.86* | *1.00* | *0.86* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *363* | *0* | *13* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *4* | *0* | *4* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *253* | *363* | | *13* | | | |
| C (m) (veh/h) | | *1283* | *130* | | *892* | | | |
| v/c | | *0.20* | *2.79* | | *0.01* | | | |
| 95% queue length | | *0.73* | *33.22* | | *0.04* | | | |
| Control Delay (s/veh) | | *8.5* | *880.3* | | *9.1* | | | |
| LOS | | *A* | *F* | | *A* | | | |
| Approach Delay (s/veh) | -- | -- | *850.2* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp*

North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *109* | | | *535* | |
| Peak-Hour Factor, PHF | *1.00* | *0.88* | *1.00* | *1.00* | *0.72* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *123* | *0* | *0* | *743* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *413* | | *194* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.87* | *1.00* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *474* | *0* | *222* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *5* | *0* | *5* |
| Percent Grade (%) | *0* | | | *-3* | | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *696* | | | | |
| C (m) (veh/h) | | | | *410* | | | | |
| v/c | | | | *1.70* | | | | |
| 95% queue length | | | | *41.97* | | | | |
| Control Delay (s/veh) | | | | *347.8* | | | | |
| LOS | | | | *F* | | | | |
| Approach Delay (s/veh) | -- | -- | *347.8* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Route 121/ I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp*

North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *109* | *58* | *85* | *859* | |
| Peak-Hour Factor, PHF | *1.00* | *0.91* | *0.91* | *0.89* | *0.89* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *119* | *63* | *95* | *965* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *3* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *95* | | | | | | |
| C (m) (veh/h) | | *1387* | | | | | | |
| v/c | | *0.07* | | | | | | |
| 95% queue length | | *0.22* | | | | | | |
| Control Delay (s/veh) | | *7.8* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 6 & Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *275* | *4* | *1* | *819* | *18* |
| Peak-Hour Factor, PHF | *0.85* | *0.85* | *0.85* | *0.95* | *0.95* | *0.95* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *323* | *4* | *1* | *862* | *18* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *7* | *3* | *13* | *30* | *0* | *5* |
| Peak-Hour Factor, PHF | *0.52* | *0.52* | *0.52* | *0.67* | *0.67* | *0.67* |
| Hourly Flow Rate, HFR (veh/h) | *13* | *5* | *25* | *44* | *0* | *7* |
| Percent Heavy Vehicles | *9* | *9* | *9* | *14* | *14* | *14* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *1* | *18* | | *25* | | *51* | |
| C (m) (veh/h) | *777* | *1244* | *139* | | *830* | | *173* | |
| v/c | *0.00* | *0.00* | *0.13* | | *0.03* | | *0.29* | |
| 95% queue length | *0.00* | *0.00* | *0.43* | | *0.09* | | *1.17* | |
| Control Delay (s/veh) | *9.6* | *7.9* | *34.7* | | *9.5* | | *34.3* | |
| LOS | *A* | *A* | *D* | | *A* | | *D* | |
| Approach Delay (s/veh) | -- | -- | *20.0* | | | *34.3* | | |
| Approach LOS | -- | -- | *C* | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Route 6 and CR 50* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *65* | *273* | | | *831* | *0* |
| Peak-Hour Factor, PHF | *0.86* | *0.86* | *1.00* | *1.00* | *0.97* | *0.97* |
| Hourly Flow Rate, HFR (veh/h) | *75* | *317* | *0* | *0* | *856* | *0* |
| Percent Heavy Vehicles | *11* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *2* | | *144* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.87* | *1.00* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *2* | *0* | *165* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *10* | *0* | *10* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *75* | | | | | *2* | | *165* |
| C (m) (veh/h) | *747* | | | | | *149* | | *346* |
| v/c | *0.10* | | | | | *0.01* | | *0.48* |
| 95% queue length | *0.33* | | | | | *0.04* | | *2.47* |
| Control Delay (s/veh) | *10.4* | | | | | *29.5* | | *24.5* |
| LOS | *B* | | | | | *D* | | *C* |
| Approach Delay (s/veh) | -- | -- | | | | *24.6* | | |
| Approach LOS | -- | -- | | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/16/07* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *0* | *1* | *1* | *0* | *2* | | | *2* | *0* |
| Lane Group | | | | | *LT* | *R* | *DefL* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *17* | *3* | *65* | *107* | *94* | | | *250* | *68* |
| % Heavy Vehicles, %HV | | | | *1* | *1* | *1* | *1* | *1* | | | *1* | *1* |
| Peak-Hour Factor, PHF | | | | *0.89* | *0.89* | *0.89* | *0.88* | *0.88* | | | *0.92* | *0.92* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | | *2.0* | *2.0* | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | | *2.0* | *2.0* | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | | *3* | *3* | *3* | *3* | | | *5* | |
| Unit Extension, UE | | | | | *3.0* | *3.0* | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | | *1.000* | *1.000* | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | | *0.0* | *0.0* | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *35* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | | *12.0* | *12.0* | *12.0* | *12.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | | *0* | *0* | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = | G = | G = | G = *12.0* | G = *30.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *70.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | | *22* | *34* | *122* | *107* | | | *346* | |
| Lane Group Capacity, c | | | | | *337* | *298* | *175* | *321* | | | *2339* | |
| v/c Ratio, X | | | | | *0.07* | *0.11* | *0.70* | *0.33* | | | *0.15* | |
| Total Green Ratio, g/C | | | | | *0.19* | *0.19* | *0.17* | *0.17* | | | *0.67* | |
| Uniform Delay, $d_1$ | | | | | *23.5* | *23.7* | *27.3* | *25.5* | | | *4.2* | |
| Progression Factor, PF | | | | | *1.000* | *1.000* | *1.000* | *1.000* | | | *0.152* | |
| Delay Calibration, k | | | | | *0.11* | *0.11* | *0.26* | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | | *0.1* | *0.2* | *11.5* | *0.6* | | | *0.0* | |
| Initial Queue Delay, $d_3$ | | | | | *0.0* | *0.0* | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | | *23.6* | *23.9* | *38.8* | *26.1* | | | *0.7* | |
| Lane Group LOS | | | | | *C* | *C* | *D* | *C* | | | *A* | |
| Approach Delay | | | | *23.8* | | | *32.9* | | | *0.7* | | |
| Approach LOS | | | | *C* | | | *C* | | | *A* | | |
| Intersection Delay | *14.4* | | | $X_C$ = *0.14* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/6/2006* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *1* | | *1* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | | *R* | | | |
| Volume, V (vph) | | *334* | *185* | *127* | *212* | | *94* | | *74* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *1* | *1* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.95* | *0.95* | *0.87* | *0.87* | | *0.98* | | *0.98* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | | *3* | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *12.0* | | *12.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | | *3.2* | | | *3.2* | | | *3.2* | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *10.0* | G = | G = | G = *30.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *547* | | *146* | *244* | | *96* | | *76* | | | |
| Lane Group Capacity, c | | *934* | | *612* | *937* | | *715* | | *640* | | | |
| v/c Ratio, X | | *0.59* | | *0.24* | *0.26* | | *0.13* | | *0.12* | | | |
| Total Green Ratio, g/C | | *0.27* | | *0.51* | *0.47* | | *0.40* | | *0.40* | | | |
| Uniform Delay, $d_1$ | | *23.9* | | *14.4* | *12.1* | | *14.3* | | *14.2* | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.556* | | *1.000* | | | |
| Delay Calibration, k | | *0.18* | | *0.11* | *0.11* | | *0.11* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *1.0* | | *0.2* | *0.1* | | *0.1* | | *0.1* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *24.9* | | *14.6* | *12.3* | | *8.0* | | *14.3* | | | |
| Lane Group LOS | | *C* | | *B* | *B* | | *A* | | *B* | | | |
| Approach Delay | *24.9* | | | *13.2* | | | *10.8* | | | | | |
| Approach LOS | *C* | | | *B* | | | *B* | | | | | |
| Intersection Delay | *18.6* | | | $X_C$ = *0.33* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6/Starr/22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/29/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *PM Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline Retail* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | | *LTR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *149* | *477* | *83* | *18* | *442* | *86* | *122* | *40* | *18* | *223* | *34* | *307* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.92* | *0.92* | *0.92* | *0.90* | *0.90* | *0.90* | *0.90* | *0.90* | *0.90* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | EB Only | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *5.0* | G = | G = | G = *25.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

| | |
|---|---|
| Duration of Analysis, T = *0.25* | Cycle Length, C = *65.0* |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *746* | | | *593* | | | *200* | | *248* | *379* | |
| Lane Group Capacity, c | | *1209* | | | *995* | | | *327* | | *455* | *577* | |
| v/c Ratio, X | | *0.62* | | | *0.60* | | | *0.61* | | *0.55* | *0.66* | |
| Total Green Ratio, g/C | | *0.46* | | | *0.31* | | | *0.38* | | *0.38* | *0.38* | |
| Uniform Delay, $d_1$ | | *13.2* | | | *19.1* | | | *16.1* | | *15.6* | *16.5* | |
| Progression Factor, PF | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.20* | | | *0.18* | | | *0.20* | | *0.15* | *0.23* | |
| Incremental Delay, $d_2$ | | *1.0* | | | *1.0* | | | *3.4* | | *1.4* | *2.7* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *14.1* | | | *20.1* | | | *19.4* | | *16.9* | *19.2* | |
| Lane Group LOS | | *B* | | | *C* | | | *B* | | *B* | *B* | |
| Approach Delay | *14.1* | | | *20.1* | | | *19.4* | | | *18.3* | | |
| Approach LOS | *B* | | | *C* | | | *B* | | | *B* | | |
| Intersection Delay | *17.5* | | | $X_C$ = *0.84* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/7/07* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume, V (vph) | *7* | *68* | *256* | *120* | *10* | *161* | *27* | *688* | *195* | *138* | *306* | *2* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.93* | *0.93* | *0.93* | *0.89* | *0.89* | *0.89* | *0.94* | *0.94* | *0.94* | *0.97* | *0.97* | *0.97* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = | G = | G = | G = *23.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *60.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *356* | | *135* | *192* | | | *968* | | *142* | *317* | |
| Lane Group Capacity, c | | *614* | | *259* | *499* | | | *1271* | | *415* | *921* | |
| v/c Ratio, X | | *0.58* | | *0.52* | *0.38* | | | *0.76* | | *0.34* | *0.34* | |
| Total Green Ratio, g/C | | *0.33* | | *0.33* | *0.33* | | | *0.38* | | *0.55* | *0.50* | |
| Uniform Delay, $d_1$ | | *16.5* | | *16.1* | *15.3* | | | *16.1* | | *15.0* | *9.1* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.17* | | *0.13* | *0.11* | | | *0.31* | | *0.11* | *0.11* | |
| Incremental Delay, $d_2$ | | *1.4* | | *1.9* | *0.5* | | | *2.8* | | *0.5* | *0.2* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *17.9* | | *18.0* | *15.8* | | | *18.9* | | *15.5* | *9.3* | |
| Lane Group LOS | | *B* | | *B* | *B* | | | *B* | | *B* | *A* | |
| Approach Delay | *17.9* | | | *16.7* | | | *18.9* | | | *11.2* | | |
| Approach LOS | *B* | | | *B* | | | *B* | | | *B* | | |
| Intersection Delay | *16.7* | | | $X_C$ = *1.00* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *East Main & 202* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *PM Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *67* | *339* | | | *171* | *652* | | | | *490* | | *45* |
| % Heavy Vehicles, %HV | *4* | *4* | | | *2* | *2* | | | | *3* | | *3* |
| Peak-Hour Factor, PHF | *0.93* | *0.93* | | | *0.96* | *0.96* | | | | *0.92* | | *0.92* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *437* | | | *178* | *679* | | | | *533* | | *49* |
| Lane Group Capacity, c | | *794* | | | *826* | *1531* | | | | *742* | | *642* |
| v/c Ratio, X | | *0.55* | | | *0.22* | *0.44* | | | | *0.72* | | *0.08* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *16.7* | | | *13.8* | *0.0* | | | | *20.3* | | *14.6* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.15* | | | *0.11* | *0.11* | | | | *0.28* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.8* | | | *0.1* | *0.2* | | | | *3.4* | | *0.1* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *17.5* | | | *13.9* | *0.2* | | | | *23.7* | | *14.6* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *C* | | *B* |
| Approach Delay | *17.5* | | | *3.1* | | | | | | *22.9* | | |
| Approach LOS | *B* | | | *A* | | | | | | *C* | | |
| Intersection Delay | *12.6* | | | $X_C$ = *0.63* | | | Intersection LOS | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *I-84 EB ramps/Saw Mill* |
| Jurisdiction | *City of Danbury CT* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 EB Ramps* | North/South Street: *Saw Mill Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *169* | *94* | *159* | *96* | |
| Peak-Hour Factor, PHF | *1.00* | *0.83* | *0.83* | *0.87* | *0.87* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *203* | *113* | *182* | *110* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *44* | *0* | *55* | | | |
| Peak-Hour Factor, PHF | *0.73* | *0.73* | *0.73* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *60* | *0* | *75* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | | *3* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *0* | *0* |
| Configuration | | *LTR* | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | *LTR* | |
| v (veh/h) | | *182* | | | | | *135* | |
| C (m) (veh/h) | | *1250* | | | | | *519* | |
| v/c | | *0.15* | | | | | *0.26* | |
| 95% queue length | | *0.51* | | | | | *1.03* | |
| Control Delay (s/veh) | | *8.4* | | | | | *14.4* | |
| LOS | | *A* | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *14.4* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Dingle /US Rt 6 & 202* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *1* | *472* | *49* | *28* | *345* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.93* | *0.93* | *0.93* |
| Hourly Flow Rate, HFR (veh/h) | *1* | *496* | *51* | *30* | *370* | *1* |
| Percent Heavy Vehicles | *1* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *55* | *0* | *24* | *3* | *0* | *0* |
| Peak-Hour Factor, PHF | *0.90* | *0.90* | *0.90* | *0.38* | *0.38* | *0.38* |
| Hourly Flow Rate, HFR (veh/h) | *61* | *0* | *26* | *7* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *1* | *1* | *1* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *1* | *30* | | *87* | | | *7* | |
| C (m) (veh/h) | *1191* | *1025* | | *405* | | | *318* | |
| v/c | *0.00* | *0.03* | | *0.21* | | | *0.02* | |
| 95% queue length | *0.00* | *0.09* | | *0.80* | | | *0.07* | |
| Control Delay (s/veh) | *8.0* | *8.6* | | *17.8* | | | *16.6* | |
| LOS | *A* | *A* | | *C* | | | *C* | |
| Approach Delay (s/veh) | -- | -- | *17.8* | | | *16.6* | | |
| Approach LOS | -- | -- | *C* | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road/US 6* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *49* | *524* | | | *324* | *31* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *1.00* | *1.00* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *51* | *551* | *0* | *0* | *364* | *34* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *8* | | *22* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.68* | *1.00* | *0.68* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *11* | *0* | *32* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *51* | | | | | | *43* | |
| C (m) (veh/h) | *1164* | | | | | | *594* | |
| v/c | *0.04* | | | | | | *0.07* | |
| 95% queue length | *0.14* | | | | | | *0.23* | |
| Control Delay (s/veh) | *8.2* | | | | | | *11.5* | |
| LOS | *A* | | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *11.5* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *464* | *183* | *56* | *315* | |
| Peak-Hour Factor, PHF | *1.00* | *0.85* | *0.85* | *0.97* | *0.97* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *545* | *215* | *57* | *324* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *245* | | *52* | | | |
| Peak-Hour Factor, PHF | *0.95* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *257* | *0* | *54* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *0* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *57* | *257* | | *54* | | | |
| C (m) (veh/h) | | *1027* | *298* | | *729* | | | |
| v/c | | *0.06* | *0.86* | | *0.07* | | | |
| 95% queue length | | *0.18* | *7.58* | | *0.24* | | | |
| Control Delay (s/veh) | | *8.7* | *61.3* | | *10.3* | | | |
| LOS | | *A* | *F* | | *B* | | | |
| Approach Delay (s/veh) | -- | -- | *52.4* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp*

North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *240* | | | *242* | |
| Peak-Hour Factor, PHF | *1.00* | *0.92* | *1.00* | *1.00* | *0.88* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *260* | *0* | *0* | *275* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *75* | | *54* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.83* | *1.00* | *0.83* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *90* | *0* | *65* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *1* | *0* | *1* |
| Percent Grade (%) | *0* | | | *-3* | | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *155* | | | | |
| C (m) (veh/h) | | | | *875* | | | | |
| v/c | | | | *0.18* | | | | |
| 95% queue length | | | | *0.64* | | | | |
| Control Delay (s/veh) | | | | *12.1* | | | | |
| LOS | | | | *B* | | | | |
| Approach Delay (s/veh) | -- | -- | *12.1* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Route 121/ I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp*

North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *238* | *164* | *88* | *229* | |
| Peak-Hour Factor, PHF | *1.00* | *0.97* | *0.97* | *0.82* | *0.82* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *245* | *169* | *107* | *279* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *2* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *107* | | | | | | |
| C (m) (veh/h) | | *1145* | | | | | | |
| v/c | | *0.09* | | | | | | |
| 95% queue length | | *0.31* | | | | | | |
| Control Delay (s/veh) | | *8.5* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

### General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

### Site Information

| | |
|---|---|
| Intersection | *Route 6 & Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *354* | *2* | *21* | *867* | *104* |
| Peak-Hour Factor, PHF | *0.94* | *0.94* | *0.94* | *0.98* | *0.98* | *0.98* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *376* | *2* | *21* | *884* | *106* |
| Percent Heavy Vehicles | *2* | -- | -- | *3* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *21* | *9* | *23* | *52* | *2* | *0* |
| Peak-Hour Factor, PHF | *0.66* | *0.66* | *0.66* | *0.79* | *0.79* | *0.79* |
| Hourly Flow Rate, HFR (veh/h) | *31* | *13* | *34* | *65* | *2* | *0* |
| Percent Heavy Vehicles | *8* | *8* | *8* | *2* | *2* | *2* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *21* | *44* | | *34* | | *67* | |
| C (m) (veh/h) | *694* | *1170* | *105* | | *802* | | *138* | |
| v/c | *0.00* | *0.02* | *0.42* | | *0.04* | | *0.49* | |
| 95% queue length | *0.00* | *0.05* | *1.76* | | *0.13* | | *2.26* | |
| Control Delay (s/veh) | *10.2* | *8.1* | *62.0* | | *9.7* | | *53.5* | |
| LOS | *B* | *A* | *F* | | *A* | | *F* | |
| Approach Delay (s/veh) | -- | -- | *39.2* | | | *53.5* | | |
| Approach LOS | -- | -- | *E* | | | *F* | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *US Route 6 and CR 50* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/30/2007* | Analysis Year | *Existing Condition* |
| Analysis Time Period | *P.M. Peak Hour* | | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *117* | *338* | | | *895* | *0* |
| Peak-Hour Factor, PHF | *0.98* | *0.98* | *1.00* | *1.00* | *0.98* | *0.98* |
| Hourly Flow Rate, HFR (veh/h) | *119* | *344* | *0* | *0* | *913* | *0* |
| Percent Heavy Vehicles | *3* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *7* | | *130* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.90* | *1.00* | *0.90* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *7* | *0* | *144* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *1* | *0* | *1* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *119* | | | | | *7* | | *144* |
| C (m) (veh/h) | *742* | | | | | *114* | | *333* |
| v/c | *0.16* | | | | | *0.06* | | *0.43* |
| 95% queue length | *0.57* | | | | | *0.19* | | *2.10* |
| Control Delay (s/veh) | *10.8* | | | | | *38.6* | | *23.8* |
| LOS | *B* | | | | | *E* | | *C* |
| Approach Delay (s/veh) | -- | -- | | | | *24.5* | | |
| Approach LOS | -- | -- | | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill Road* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/16/07* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *0* | *1* | *1* | *0* | *2* | | | *2* | *0* |
| Lane Group | | | | | *LT* | *R* | | *LT* | | | *TR* | |
| Volume, V (vph) | | | | *27* | *7* | *73* | *54* | *90* | | | *108* | *31* |
| % Heavy Vehicles, %HV | | | | *0* | *0* | *0* | *1* | *1* | | | *0* | *0* |
| Peak-Hour Factor, PHF | | | | *0.70* | *0.70* | *0.70* | *0.86* | *0.86* | | | *0.81* | *0.81* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | | *2.0* | *2.0* | | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | | *2.0* | *2.0* | | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | | *3* | *3* | | *3* | | | *5* | |
| Unit Extension, UE | | | | | *3.0* | *3.0* | | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | | *1.000* | *1.000* | | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | | *0.0* | *0.0* | | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *40* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | | *12.0* | *12.0* | | *12.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | | *0* | *0* | | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = | G = | G = | G = *12.0* | G = *30.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *70.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | | *49* | *47* | | *168* | | | *171* | |
| Lane Group Capacity, c | | | | | *341* | *301* | | *481* | | | *2359* | |
| v/c Ratio, X | | | | | *0.14* | *0.16* | | *0.35* | | | *0.07* | |
| Total Green Ratio, g/C | | | | | *0.19* | *0.19* | | *0.17* | | | *0.67* | |
| Uniform Delay, $d_1$ | | | | | *23.8* | *23.9* | | *25.6* | | | *4.0* | |
| Progression Factor, PF | | | | | *1.000* | *1.000* | | *1.000* | | | *0.152* | |
| Delay Calibration, k | | | | | *0.11* | *0.11* | | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | | *0.2* | *0.2* | | *0.4* | | | *0.0* | |
| Initial Queue Delay, $d_3$ | | | | | *0.0* | *0.0* | | *0.0* | | | *0.0* | |
| Control Delay | | | | | *24.0* | *24.1* | | *26.0* | | | *0.6* | |
| Lane Group LOS | | | | | *C* | *C* | | *C* | | | *A* | |
| Approach Delay | | | | *24.1* | | | *26.0* | | | *0.6* | | |
| Approach LOS | | | | *C* | | | *C* | | | *A* | | |
| Intersection Delay | *15.6* | | | $X_C$ = *0.09* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6/ Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/6/2006* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *1* | | *1* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | | *R* | | | |
| Volume, V (vph) | | *208* | *85* | *62* | *261* | | *88* | | *65* | | | |
| % Heavy Vehicles, %HV | | *0* | *0* | *0* | *0* | | *0* | | *0* | | | |
| Peak-Hour Factor, PHF | | *0.92* | *0.92* | *0.94* | *0.94* | | *0.83* | | *0.83* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | | *3* | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *12.0* | | *12.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | | *3.2* | | | *3.2* | | | *3.2* | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *10.0* | G = | G = | G = *30.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *318* | | *66* | *278* | | *106* | | *78* | | | |
| Lane Group Capacity, c | | *954* | | *732* | *946* | | *722* | | *646* | | | |
| v/c Ratio, X | | *0.33* | | *0.09* | *0.29* | | *0.15* | | *0.12* | | | |
| Total Green Ratio, g/C | | *0.27* | | *0.51* | *0.47* | | *0.40* | | *0.40* | | | |
| Uniform Delay, $d_1$ | | *22.1* | | *10.0* | *12.4* | | *14.3* | | *14.2* | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.556* | | *1.000* | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.11* | | *0.11* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *0.2* | | *0.1* | *0.2* | | *0.1* | | *0.1* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *22.3* | | *10.1* | *12.5* | | *8.1* | | *14.3* | | | |
| Lane Group LOS | | *C* | | *B* | *B* | | *A* | | *B* | | | |
| Approach Delay | *22.3* | | | *12.1* | | | *10.7* | | | | | |
| Approach LOS | *C* | | | *B* | | | *B* | | | | | |
| Intersection Delay | *15.6* | | | $X_C$ = *0.23* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr/NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/29/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | | *LTR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *218* | *354* | *84* | *30* | *334* | *73* | *100* | *31* | *9* | *62* | *27* | *159* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.93* | *0.93* | *0.93* | *0.95* | *0.95* | *0.95* | *0.76* | *0.76* | *0.76* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *35.0* | G = | G = | G = | G = *20.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *65.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *690* | | | *469* | | | *147* | | *82* | *245* | |
| Lane Group Capacity, c | | *1261* | | | *1684* | | | *305* | | *386* | *466* | |
| v/c Ratio, X | | *0.55* | | | *0.28* | | | *0.48* | | *0.21* | *0.53* | |
| Total Green Ratio, g/C | | *0.54* | | | *0.54* | | | *0.31* | | *0.31* | *0.31* | |
| Uniform Delay, $d_1$ | | *9.8* | | | *8.1* | | | *18.3* | | *16.7* | *18.6* | |
| Progression Factor, PF | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.15* | | | *0.11* | | | *0.11* | | *0.11* | *0.13* | |
| Incremental Delay, $d_2$ | | *0.5* | | | *0.1* | | | *1.2* | | *0.3* | *1.1* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *10.3* | | | *8.2* | | | *19.5* | | *16.9* | *19.7* | |
| Lane Group LOS | | *B* | | | *A* | | | *B* | | *B* | *B* | |
| Approach Delay | *10.3* | | | *8.2* | | | *19.5* | | | *19.0* | | |
| Approach LOS | *B* | | | *A* | | | *B* | | | *B* | | |
| Intersection Delay | *12.3* | | | $X_C$ = *0.54* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/7/07* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | | *LTR* | |
| Volume, V (vph) | *5* | *57* | *211* | *111* | *5* | *154* | *12* | *453* | *156* | *157* | *349* | *19* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.90* | *0.90* | *0.90* | *0.84* | *0.84* | *0.84* | *0.86* | *0.86* | *0.86* | *0.91* | *0.91* | *0.91* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = | G = | G = | G = *23.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *60.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *303* | | *132* | *189* | | | *722* | | | *578* | |
| Lane Group Capacity, c | | *615* | | *293* | *497* | | | *1268* | | | *1193* | |
| v/c Ratio, X | | *0.49* | | *0.45* | *0.38* | | | *0.57* | | | *0.48* | |
| Total Green Ratio, g/C | | *0.33* | | *0.33* | *0.33* | | | *0.38* | | | *0.50* | |
| Uniform Delay, $d_1$ | | *16.0* | | *15.7* | *15.3* | | | *14.6* | | | *9.9* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | | *1.000* | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.11* | | | *0.16* | | | *0.11* | |
| Incremental Delay, $d_2$ | | *0.6* | | *1.1* | *0.5* | | | *0.6* | | | *0.3* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | | *0.0* | |
| Control Delay | | *16.6* | | *16.8* | *15.8* | | | *15.2* | | | *10.2* | |
| Lane Group LOS | | *B* | | *B* | *B* | | | *B* | | | *B* | |
| Approach Delay | *16.6* | | | *16.2* | | | *15.2* | | | *10.2* | | |
| Approach LOS | *B* | | | *B* | | | *B* | | | *B* | | |
| Intersection Delay | *14.1* | | | $X_C$ = *0.67* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *East Main & 202* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Existing Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *48* | *171* | | | *130* | *409* | | | | *426* | | *37* |
| % Heavy Vehicles, %HV | *5* | *5* | | | *1* | *1* | | | | *2* | | *2* |
| Peak-Hour Factor, PHF | *0.91* | *0.91* | | | *0.98* | *0.98* | | | | *0.95* | | *0.95* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *241* | | | *133* | *417* | | | | *448* | | *39* |
| Lane Group Capacity, c | | *782* | | | *834* | *1546* | | | | *750* | | *648* |
| v/c Ratio, X | | *0.31* | | | *0.16* | *0.27* | | | | *0.60* | | *0.06* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *14.5* | | | *13.4* | *0.0* | | | | *18.9* | | *14.5* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.11* | | | *0.11* | *0.11* | | | | *0.19* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.2* | | | *0.1* | *0.1* | | | | *1.3* | | *0.0* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *14.7* | | | *13.5* | *0.1* | | | | *20.2* | | *14.5* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *C* | | *B* |
| Approach Delay | *14.7* | | | *3.3* | | | | | | *19.8* | | |
| Approach LOS | *B* | | | *A* | | | | | | *B* | | |
| Intersection Delay | *11.7* | | | $X_C$ = *0.45* | | | Intersection LOS | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *I-84 EB ramps/ Saw Mill Rd* |
| Jurisdiction | *City of Danbury* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 Eastbound Ramps* | North/South Street: *Saw Mill Road*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *80* | *50* | *75* | *80* | |
| Peak-Hour Factor, PHF | *1.00* | *0.86* | *0.86* | *0.92* | *0.92* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *93* | *58* | *81* | *86* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *54* | *0* | *37* | | | |
| Peak-Hour Factor, PHF | *0.84* | *0.84* | *0.84* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *64* | *0* | *44* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *3* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *0* | *0* |
| Configuration | | *LTR* | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | *LTR* | |
| v (veh/h) | | *81* | | | | | *108* | |
| C (m) (veh/h) | | *1442* | | | | | *710* | |
| v/c | | *0.06* | | | | | *0.15* | |
| 95% queue length | | *0.18* | | | | | *0.53* | |
| Control Delay (s/veh) | | *7.6* | | | | | *11.0* | |
| LOS | | *A* | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *11.0* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Dingle/ US Route 6 & 202* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *248* | *35* | *34* | *313* | *0* |
| Peak-Hour Factor, PHF | *0.84* | *0.84* | *0.84* | *0.89* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *295* | *41* | *38* | *351* | *0* |
| Percent Heavy Vehicles | *1* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *32* | *0* | *31* | *0* | *0* | *1* |
| Peak-Hour Factor, PHF | *0.88* | *0.88* | *0.88* | *0.25* | *0.25* | *0.25* |
| Hourly Flow Rate, HFR (veh/h) | *36* | *0* | *35* | *0* | *0* | *4* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *0* | *38* | | *71* | | | *4* | |
| C (m) (veh/h) | *1212* | *1227* | | *779* | | | *843* | |
| v/c | *0.00* | *0.03* | | *0.09* | | | *0.00* | |
| 95% queue length | *0.00* | *0.10* | | *0.30* | | | *0.01* | |
| Control Delay (s/veh) | *8.0* | *8.0* | | *12.3* | | | *9.3* | |
| LOS | *A* | *A* | | *B* | | | *A* | |
| Approach Delay (s/veh) | -- | -- | *12.3* | | | *9.3* | | |
| Approach LOS | -- | -- | *B* | | | *A* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road / US 6* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *12* | *272* | | | *326* | *16* |
| Peak-Hour Factor, PHF | *0.83* | *0.83* | *1.00* | *1.00* | *0.87* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *14* | *327* | *0* | *0* | *374* | *18* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *9* | | *4* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.65* | *1.00* | *0.65* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *13* | *0* | *6* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *14* | | | | | | *19* | |
| C (m) (veh/h) | *1170* | | | | | | *524* | |
| v/c | *0.01* | | | | | | *0.04* | |
| 95% queue length | *0.04* | | | | | | *0.11* | |
| Control Delay (s/veh) | *8.1* | | | | | | *12.1* | |
| LOS | *A* | | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *12.1* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/4/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *273* | *182* | *51* | *281* | |
| Peak-Hour Factor, PHF | *1.00* | *0.80* | *0.80* | *0.90* | *0.90* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *341* | *227* | *56* | *312* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *171* | | *28* | | | |
| Peak-Hour Factor, PHF | *0.94* | *1.00* | *0.94* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *181* | *0* | *29* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *2* | *0* | *2* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *56* | *181* | | *29* | | | |
| C (m) (veh/h) | | *1222* | *407* | | *844* | | | |
| v/c | | *0.05* | *0.44* | | *0.03* | | | |
| 95% queue length | | *0.14* | *2.23* | | *0.11* | | | |
| Control Delay (s/veh) | | *8.1* | *20.7* | | *9.4* | | | |
| LOS | | *A* | *C* | | *A* | | | |
| Approach Delay (s/veh) | -- | -- | *19.2* | | | | | |
| Approach LOS | -- | -- | *C* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp*

North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *130* | | | *212* | |
| Peak-Hour Factor, PHF | *1.00* | *0.79* | *1.00* | *1.00* | *0.93* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *164* | *0* | *0* | *227* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *95* | | *68* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.89* | *1.00* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *106* | *0* | *76* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *2* | *0* | *2* |
| Percent Grade (%) | *0* | | | *-3* | | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *182* | | | | |
| C (m) (veh/h) | | | | *1053* | | | | |
| v/c | | | | *0.17* | | | | |
| 95% queue length | | | | *0.62* | | | | |
| Control Delay (s/veh) | | | | *11.0* | | | | |
| LOS | | | | *B* | | | | |
| Approach Delay (s/veh) | -- | -- | *11.0* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/6/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Route 121/ I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp*

North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *127* | *122* | *73* | *223* | |
| Peak-Hour Factor, PHF | *1.00* | *0.83* | *0.83* | *0.94* | *0.94* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *153* | *146* | *77* | *237* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *77* | | | | | | |
| C (m) (veh/h) | | *1268* | | | | | | |
| v/c | | *0.06* | | | | | | |
| 95% queue length | | *0.19* | | | | | | |
| Control Delay (s/veh) | | *8.0* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Route 6 & Sodom* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/30/2007* | Analysis Year | *Existing Condition* |
| Analysis Time Period | *Saturday Peak Hour* | | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *349* | *28* | *8* | *520* | *52* |
| Peak-Hour Factor, PHF | *0.92* | *0.92* | *0.92* | *0.89* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *379* | *30* | *8* | *584* | *58* |
| Percent Heavy Vehicles | *2* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *7* | *0* | *25* | *50* | *0* | *0* |
| Peak-Hour Factor, PHF | *0.80* | *0.80* | *0.80* | *0.78* | *0.78* | *0.78* |
| Hourly Flow Rate, HFR (veh/h) | *8* | *0* | *31* | *64* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *8* | *8* | | *31* | | *64* | |
| C (m) (veh/h) | *939* | *1153* | *191* | | *809* | | *272* | |
| v/c | *0.00* | *0.01* | *0.04* | | *0.04* | | *0.24* | |
| 95% queue length | *0.00* | *0.02* | *0.13* | | *0.12* | | *0.89* | |
| Control Delay (s/veh) | *8.8* | *8.1* | *24.7* | | *9.6* | | *22.3* | |
| LOS | *A* | *A* | *C* | | *A* | | *C* | |
| Approach Delay (s/veh) | -- | -- | *12.7* | | | *22.3* | | |
| Approach LOS | -- | -- | *B* | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rt 6 and CR 50* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Existing Condition* |
| | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *68* | *392* | | | *464* | *6* |
| Peak-Hour Factor, PHF | *0.85* | *0.85* | *1.00* | *1.00* | *0.86* | *0.86* |
| Hourly Flow Rate, HFR (veh/h) | *79* | *461* | *0* | *0* | *539* | *6* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *10* | | *112* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.85* | *1.00* | *0.85* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *11* | *0* | *131* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *2* | *0* | *2* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *79* | | | | | *11* | | *131* |
| C (m) (veh/h) | *1029* | | | | | *199* | | *540* |
| v/c | *0.08* | | | | | *0.06* | | *0.24* |
| 95% queue length | *0.25* | | | | | *0.17* | | *0.94* |
| Control Delay (s/veh) | *8.8* | | | | | *24.1* | | *13.8* |
| LOS | *A* | | | | | *C* | | *B* |
| Approach Delay (s/veh) | -- | -- | | | | *14.6* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *1* | *1* | *0* | *1* | *1* | | | *2* | *0* |
| Lane Group | | | | *L* | *LTR* | | *L* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *460* | *5* | *406* | *259* | *180* | | | *163* | *56* |
| % Heavy Vehicles, %HV | | | | *3* | *3* | *3* | *1* | *1* | | | *1* | *1* |
| Peak-Hour Factor, PHF | | | | *0.92* | *0.92* | *0.92* | *0.86* | *0.86* | | | *0.92* | *0.92* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | *3* | *3* | | *5* | *5* | | | *5* | |
| Unit Extension, UE | | | | *3.0* | *3.0* | | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | *1.000* | *1.000* | | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *200* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | *12.0* | *12.0* | | *11.0* | *11.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | *0* | *0* | | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *19.0* | G = | G = | G = | G = *18.0* | G = *23.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | *400* | *329* | | *301* | *209* | | | *238* | |
| Lane Group Capacity, c | | | | *446* | *415* | | *413* | *434* | | | *1061* | |
| v/c Ratio, X | | | | *0.90* | *0.79* | | *0.73* | *0.48* | | | *0.22* | |
| Total Green Ratio, g/C | | | | *0.25* | *0.25* | | *0.24* | *0.24* | | | *0.31* | |
| Uniform Delay, $d_1$ | | | | *27.1* | *26.2* | | *26.3* | *24.5* | | | *19.4* | |
| Progression Factor, PF | | | | *1.000* | *1.000* | | *0.789* | *0.789* | | | *0.705* | |
| Delay Calibration, k | | | | *0.42* | *0.34* | | *0.29* | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | *20.4* | *10.1* | | *6.4* | *0.8* | | | *0.1* | |
| Initial Queue Delay, $d_3$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | *47.5* | *36.3* | | *27.1* | *20.2* | | | *13.8* | |
| Lane Group LOS | | | | *D* | *D* | | *C* | *C* | | | *B* | |
| Approach Delay | | | | *42.4* | | | *24.3* | | | *13.8* | | |
| Approach LOS | | | | *D* | | | *C* | | | *B* | | |
| Intersection Delay | *31.6* | | | $X_C$ = *0.59* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *2* | | *0* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | *LR* | | | | |
| Volume, V (vph) | | *96* | *103* | *117* | *573* | | *535* | | *66* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *0* | *0* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.89* | *0.89* | *0.80* | *0.80* | | *0.87* | | *0.87* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | *3* | | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | *3.0* | | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | *1.000* | | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *11.0* | *11.0* | | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | *0* | | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = *10.0* | G = | G = | G = *37.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *224* | | *146* | *716* | | *338* | *353* | | | | |
| Lane Group Capacity, c | | *592* | | *656* | *757* | | *1655* | *835* | | | | |
| v/c Ratio, X | | *0.38* | | *0.22* | *0.95* | | *0.20* | *0.42* | | | | |
| Total Green Ratio, g/C | | *0.17* | | *0.41* | *0.37* | | *0.49* | *0.49* | | | | |
| Uniform Delay, $d_1$ | | *27.4* | | *14.7* | *22.8* | | *10.7* | *12.2* | | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.351* | *1.000* | | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.46* | | *0.11* | *0.11* | | | | |
| Incremental Delay, $d_2$ | | *0.4* | | *0.2* | *20.6* | | *0.1* | *0.3* | | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Control Delay | | *27.8* | | *14.9* | *43.4* | | *3.8* | *12.5* | | | | |
| Lane Group LOS | | *C* | | *B* | *D* | | *A* | *B* | | | | |
| Approach Delay | *27.8* | | | *38.5* | | | *8.3* | | | | | |
| Approach LOS | *C* | | | *D* | | | *A* | | | | | |
| Intersection Delay | *25.4* | | | $X_C$ = *0.65* | | | Intersection LOS | | | *C* | | |

# SHORT REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/28/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *No Build Condition* |

**Volume and Timing Input**

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | *DefL* | *TR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume (vph) | *130* | *342* | *113* | *42* | *1174* | *90* | *95* | *28* | *7* | *125* | *98* | *116* |
| % Heavy Vehicles | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* |
| PHF | *0.74* | *0.74* | *0.74* | *0.91* | *0.91* | *0.91* | *0.80* | *0.80* | *0.80* | *0.91* | *0.91* | *0.91* |
| Pretimed/Actuated (P/A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Startup Lost Time | *2.0* | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green | *2.0* | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type | *3* | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension | *3.0* | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Ped/Bike/RTOR Volume | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | *12.0* | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking/Grade/Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking/Hour | | | | | | | | | | | | |
| Bus Stops/Hour | *0* | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Minimum Pedestrian Time | | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | |

| Phasing | EW Perm | EB Only | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *30.0* | G = *4.0* | G = | G = | G = *16.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis (hrs) = *0.25* | Cycle Length C = *65.0*

## Lane Group Capacity, Control Delay, and LOS Determination

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adjusted Flow Rate | *176* | *615* | | | *1435* | | | *163* | | *137* | *235* | |
| Lane Group Capacity | *420* | *1019* | | | *1457* | | | *201* | | *294* | *378* | |
| v/c Ratio | *0.42* | *0.60* | | | *0.98* | | | *0.81* | | *0.47* | *0.62* | |
| Green Ratio | *0.65* | *0.60* | | | *0.46* | | | *0.25* | | *0.25* | *0.25* | |
| Uniform Delay $d_1$ | *18.7* | *8.2* | | | *17.3* | | | *23.1* | | *20.9* | *21.8* | |
| Delay Factor k | *0.11* | *0.19* | | | *0.49* | | | *0.35* | | *0.11* | *0.20* | |
| Incremental Delay $d_2$ | *0.7* | *1.0* | | | *20.0* | | | *21.6* | | *1.2* | *3.1* | |
| PF Factor | *1.000* | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Control Delay | *19.4* | *9.2* | | | *37.2* | | | *44.7* | | *22.0* | *25.0* | |
| Lane Group LOS | *B* | *A* | | | *D* | | | *D* | | *C* | *C* | |
| Approach Delay | *11.5* | | | *37.2* | | | *44.7* | | | *23.9* | | |
| Approach LOS | *B* | | | *D* | | | *D* | | | *C* | | |
| Intersection Delay | *28.5* | | | Intersection LOS | | | | | | *C* | | |

# SHORT REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/28/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *No Build Condition* |

**Volume and Timing Input**

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume (vph) | *2* | *82* | *104* | *212* | *6* | *120* | *18* | *787* | *583* | *176* | *279* | *3* |
| % Heavy Vehicles | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* |
| PHF | *0.74* | *0.74* | *0.74* | *0.85* | *0.85* | *0.85* | *0.97* | *0.97* | *0.97* | *0.88* | *0.88* | *0.88* |
| Pretimed/Actuated (P/A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Startup Lost Time | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Ped/Bike/RTOR Volume | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking/Grade/Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking/Hour | | | | | | | | | | | | |
| Bus Stops/Hour | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Minimum Pedestrian Time | | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | |

| Phasing | EW Perm | WB Only | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = *2.0* | G = | G = | G = *33.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis (hrs) = *0.25* | | | | | | Cycle Length C = *70.0* | | |

## Lane Group Capacity, Control Delay, and LOS Determination

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adjusted Flow Rate | | *255* | | *249* | *148* | | | *1431* | | *200* | *320* | |
| Lane Group Capacity | | *341* | | *342* | *411* | | | *1473* | | *344* | *1012* | |
| v/c Ratio | | *0.75* | | *0.73* | *0.36* | | | *0.97* | | *0.58* | *0.32* | |
| Green Ratio | | *0.19* | | *0.33* | *0.29* | | | *0.47* | | *0.61* | *0.57* | |
| Uniform Delay $d_1$ | | *26.9* | | *25.7* | *19.9* | | | *18.0* | | *23.4* | *7.8* | |
| Delay Factor k | | *0.30* | | *0.29* | *0.11* | | | *0.48* | | *0.17* | *0.11* | |
| Incremental Delay $d_2$ | | *8.8* | | *7.6* | *0.5* | | | *17.1* | | *2.5* | *0.2* | |
| PF Factor | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Control Delay | | *35.8* | | *33.3* | *20.4* | | | *35.1* | | *25.9* | *8.0* | |
| Lane Group LOS | | *D* | | *C* | *C* | | | *D* | | *C* | *A* | |
| Approach Delay | *35.8* | | | *28.5* | | | *35.1* | | | *14.9* | | |
| Approach LOS | *D* | | | *C* | | | *D* | | | *B* | | |
| Intersection Delay | *30.1* | | | Intersection LOS | | | | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *AM Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *15* | *167* | | | *512* | *427* | | | | *511* | | *115* |
| % Heavy Vehicles, %HV | *22* | *22* | | | *5* | *5* | | | | *7* | | *7* |
| Peak-Hour Factor, PHF | *0.75* | *0.75* | | | *0.93* | *0.93* | | | | *0.77* | | *0.77* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *243* | | | *551* | *459* | | | | *664* | | *149* |
| Lane Group Capacity, c | | *697* | | | *802* | *1487* | | | | *714* | | *618* |
| v/c Ratio, X | | *0.35* | | | *0.69* | *0.31* | | | | *0.93* | | *0.24* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *14.8* | | | *18.2* | *0.0* | | | | *23.3* | | *15.7* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.11* | | | *0.26* | *0.11* | | | | *0.45* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.3* | | | *2.5* | *0.1* | | | | *18.7* | | *0.2* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *15.1* | | | *20.7* | *0.1* | | | | *42.0* | | *15.9* |
| Lane Group LOS | | *B* | | | *C* | *A* | | | | *D* | | *B* |
| Approach Delay | *15.1* | | | *11.3* | | | | | | *37.2* | | |
| Approach LOS | *B* | | | *B* | | | | | | *D* | | |
| Intersection Delay | *22.0* | | | $X_C$ = *0.80* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Saw Mill Rd/I-84 EB ramps* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *1* | | | | | *1* | *1* | *0* | *2* | |
| Lane Group | | *LT* | *R* | | | | | *T* | *R* | | *LT* | |
| Volume, V (vph) | *72* | *0* | *596* | | | | | *363* | *282* | *77* | *544* | |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | | | | | *0* | *0* | *2* | *2* | |
| Peak-Hour Factor, PHF | *0.89* | *0.89* | *0.89* | | | | | *0.89* | *0.89* | *0.96* | *0.96* | |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | | | | | *A* | *A* | *A* | *A* | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Arrival Type, AT | | *3* | *3* | | | | | *3* | *3* | | *5* | |
| Unit Extension, UE | | *3.0* | *3.0* | | | | | *3.0* | *3.0* | | *3.0* | |
| Filtering/Metering, I | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | | | | *0* | *0* | *50* | *0* | *0* | |
| Lane Width | | *12.0* | *12.0* | | | | | *11.0* | *11.0* | | *11.0* | |
| Parking / Grade / Parking | *N* | *3* | *N* | | | | *N* | *8* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | | | | *0* | *0* | | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | | | | *3.2* | | | *3.2* | | |

| Phasing | EB Only | 02 | 03 | 04 | SB Only | NB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *10.0* | G = | G = | G = | G = *30.0* | G = *20.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *81* | *670* | | | | | *408* | *261* | | *647* | |
| Lane Group Capacity, c | | *235* | *735* | | | | | *470* | *400* | | *1397* | |
| v/c Ratio, X | | *0.34* | *0.91* | | | | | *0.87* | *0.65* | | *0.46* | |
| Total Green Ratio, g/C | | *0.13* | *0.47* | | | | | *0.27* | *0.27* | | *0.40* | |
| Uniform Delay, $d_1$ | | *29.5* | *18.6* | | | | | *26.2* | *24.4* | | *16.6* | |
| Progression Factor, PF | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *0.556* | |
| Delay Calibration, k | | *0.11* | *0.43* | | | | | *0.40* | *0.23* | | *0.11* | |
| Incremental Delay, $d_2$ | | *0.9* | *15.6* | | | | | *15.8* | *3.8* | | *0.2* | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Control Delay | | *30.4* | *34.2* | | | | | *42.0* | *28.2* | | *9.4* | |
| Lane Group LOS | | *C* | *C* | | | | | *D* | *C* | | *A* | |
| Approach Delay | *33.8* | | | | | | *36.6* | | | *9.4* | | |
| Approach LOS | *C* | | | | | | *D* | | | *A* | | |
| Intersection Delay | *27.1* | | | $X_C$ = *0.65* | | | Intersection LOS | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6/Dingle Ridge Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)*

North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *181* | *20* | *14* | *1109* | *2* |
| Peak-Hour Factor, PHF | *0.75* | *0.75* | *0.75* | *0.92* | *0.92* | *0.92* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *241* | *26* | *15* | *1205* | *2* |
| Percent Heavy Vehicles | *5* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *38* | *2* | *19* | *0* | *2* | *1* |
| Peak-Hour Factor, PHF | *0.78* | *0.78* | *0.78* | *0.38* | *0.38* | *0.38* |
| Hourly Flow Rate, HFR (veh/h) | *48* | *2* | *24* | *0* | *5* | *2* |
| Percent Heavy Vehicles | *3* | *3* | *3* | *3* | *3* | *3* |
| Percent Grade (%) | *2* | | | *2* | | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *0* | *15* | | *74* | | | *7* | |
| C (m) (veh/h) | *557* | *1301* | | *320* | | | *148* | |
| v/c | *0.00* | *0.01* | | *0.23* | | | *0.05* | |
| 95% queue length | *0.00* | *0.03* | | *0.88* | | | *0.15* | |
| Control Delay (s/veh) | *11.5* | *7.8* | | *21.0* | | | *30.5* | |
| LOS | *B* | *A* | | *C* | | | *D* | |
| Approach Delay (s/veh) | -- | -- | *21.0* | | | *30.5* | | |
| Approach LOS | -- | -- | *C* | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road / US 6* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *14* | *190* | | | *1119* | *7* |
| Peak-Hour Factor, PHF | *0.73* | *0.73* | *1.00* | *1.00* | *0.91* | *0.91* |
| Hourly Flow Rate, HFR (veh/h) | *19* | *260* | *0* | *0* | *1229* | *7* |
| Percent Heavy Vehicles | *5* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *21* | | *54* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.86* | *1.00* | *0.86* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *24* | *0* | *62* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *3* | *0* | *3* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *19* | | | | | | *86* | |
| C (m) (veh/h) | *543* | | | | | | *256* | |
| v/c | *0.03* | | | | | | *0.34* | |
| 95% queue length | *0.11* | | | | | | *1.42* | |
| Control Delay (s/veh) | *11.9* | | | | | | *26.0* | |
| LOS | *B* | | | | | | *D* | |
| Approach Delay (s/veh) | -- | -- | | | | *26.0* | | |
| Approach LOS | -- | -- | | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *203* | *283* | *244* | *953* | |
| Peak-Hour Factor, PHF | *1.00* | *0.75* | *0.75* | *0.92* | *0.92* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *270* | *377* | *265* | *1035* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *5* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *327* | | *14* | | | |
| Peak-Hour Factor, PHF | *0.86* | *1.00* | *0.86* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *380* | *0* | *16* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *4* | *0* | *4* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *265* | *380* | | *16* | | | |
| C (m) (veh/h) | | *1269* | *116* | | *883* | | | |
| v/c | | *0.21* | *3.28* | | *0.02* | | | |
| 95% queue length | | *0.79* | *36.87* | | *0.06* | | | |
| Control Delay (s/veh) | | *8.6* | *1103* | | *9.2* | | | |
| LOS | | *A* | *F* | | *A* | | | |
| Approach Delay (s/veh) | -- | -- | *1059* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/06* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp* | North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *115* | | | *563* | |
| Peak-Hour Factor, PHF | *1.00* | *0.88* | *1.00* | *1.00* | *0.72* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *130* | *0* | *0* | *781* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *443* | | *203* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.87* | *1.00* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *509* | *0* | *233* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *5* | *0* | *5* |
| Percent Grade (%) | *0* | | | *-3* | | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *742* | | | | |
| C (m) (veh/h) | | | | *384* | | | | |
| v/c | | | | *1.93* | | | | |
| 95% queue length | | | | *50.28* | | | | |
| Control Delay (s/veh) | | | | *452.5* | | | | |
| LOS | | | | *F* | | | | |
| Approach Delay (s/veh) | -- | -- | *452.5* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Route 121/ I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp*

North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *115* | *71* | *89* | *913* | |
| Peak-Hour Factor, PHF | *1.00* | *0.91* | *0.91* | *0.89* | *0.89* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *126* | *78* | *100* | *1025* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *3* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *100* | | | | | | |
| C (m) (veh/h) | | *1362* | | | | | | |
| v/c | | *0.07* | | | | | | |
| 95% queue length | | *0.24* | | | | | | |
| Control Delay (s/veh) | | *7.9* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

### General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

### Site Information

| | |
|---|---|
| Intersection | *Route 6 & Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

| | |
|---|---|
| East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway* |
| Intersection Orientation: *East-West* | Study Period (hrs): *0.25* |

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *285* | *4* | *1* | *857* | *19* |
| Peak-Hour Factor, PHF | *0.85* | *0.85* | *0.85* | *0.95* | *0.95* | *0.95* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *335* | *4* | *1* | *902* | *20* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *7* | *3* | *13* | *31* | *0* | *5* |
| Peak-Hour Factor, PHF | *0.52* | *0.52* | *0.52* | *0.67* | *0.67* | *0.67* |
| Hourly Flow Rate, HFR (veh/h) | *13* | *5* | *25* | *46* | *0* | *7* |
| Percent Heavy Vehicles | *9* | *9* | *9* | *14* | *14* | *14* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *1* | *18* | | *25* | | *53* | |
| C (m) (veh/h) | *749* | *1231* | *127* | | *823* | | *159* | |
| v/c | *0.00* | *0.00* | *0.14* | | *0.03* | | *0.33* | |
| 95% queue length | *0.00* | *0.00* | *0.48* | | *0.09* | | *1.36* | |
| Control Delay (s/veh) | *9.8* | *7.9* | *38.0* | | *9.5* | | *38.6* | |
| LOS | *A* | *A* | *E* | | *A* | | *E* | |
| Approach Delay (s/veh) | -- | -- | *21.4* | | | *38.6* | | |
| Approach LOS | -- | -- | *C* | | | *E* | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *US Route 6 and CR 50* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/30/2007* | Analysis Year | *No Build Condition* |
| Analysis Time Period | *A.M. Peak Hour* | | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *67* | *289* | | | *869* | *0* |
| Peak-Hour Factor, PHF | *0.86* | *0.86* | *1.00* | *1.00* | *0.97* | *0.97* |
| Hourly Flow Rate, HFR (veh/h) | *77* | *336* | *0* | *0* | *895* | *0* |
| Percent Heavy Vehicles | *11* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *2* | | *148* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.87* | *1.00* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *2* | *0* | *170* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *10* | *0* | *10* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *77* | | | | | *2* | | *170* |
| C (m) (veh/h) | *722* | | | | | *136* | | *328* |
| v/c | *0.11* | | | | | *0.01* | | *0.52* |
| 95% queue length | *0.36* | | | | | *0.04* | | *2.82* |
| Control Delay (s/veh) | *10.6* | | | | | *31.9* | | *27.2* |
| LOS | *B* | | | | | *D* | | *D* |
| Approach Delay (s/veh) | -- | -- | | | | *27.3* | | |
| Approach LOS | -- | -- | | | | *D* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *1* | *1* | *0* | *1* | *1* | | | *2* | *0* |
| Lane Group | | | | *L* | *LTR* | | *L* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *334* | *3* | *68* | *345* | *178* | | | *326* | *73* |
| % Heavy Vehicles, %HV | | | | *1* | *1* | *1* | *1* | *1* | | | *1* | *1* |
| Peak-Hour Factor, PHF | | | | *0.89* | *0.89* | *0.89* | *0.88* | *0.88* | | | *0.92* | *0.92* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | *3* | *3* | | *5* | *5* | | | *5* | |
| Unit Extension, UE | | | | *3.0* | *3.0* | | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | *1.000* | *1.000* | | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *15* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | *12.0* | *12.0* | | *11.0* | *11.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | *0* | *0* | | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = | G = | G = | G = *23.0* | G = *24.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | *263* | *175* | | *392* | *202* | | | *433* | |
| Lane Group Capacity, c | | | | *311* | *301* | | *527* | *555* | | | *1120* | |
| v/c Ratio, X | | | | *0.85* | *0.58* | | *0.74* | *0.36* | | | *0.39* | |
| Total Green Ratio, g/C | | | | *0.17* | *0.17* | | *0.31* | *0.31* | | | *0.32* | |
| Uniform Delay, $d_1$ | | | | *30.0* | *28.5* | | *23.4* | *20.3* | | | *19.8* | |
| Progression Factor, PF | | | | *1.000* | *1.000* | | *0.705* | *0.705* | | | *0.686* | |
| Delay Calibration, k | | | | *0.38* | *0.17* | | *0.30* | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | *18.9* | *2.8* | | *5.7* | *0.4* | | | *0.2* | |
| Initial Queue Delay, $d_3$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | *49.0* | *31.3* | | *22.1* | *14.7* | | | *13.8* | |
| Lane Group LOS | | | | *D* | *C* | | *C* | *B* | | | *B* | |
| Approach Delay | | | | *41.9* | | | *19.6* | | | *13.8* | | |
| Approach LOS | | | | *D* | | | *B* | | | *B* | | |
| Intersection Delay | *24.6* | | | $X_C$ = *0.62* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

**Volume and Timing Input**

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *2* | | *0* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | *LR* | | | | |
| Volume, V (vph) | | *349* | *217* | *176* | *222* | | *124* | | *131* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *1* | *1* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.95* | *0.95* | *0.87* | *0.87* | | *0.98* | | *0.98* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | *3* | | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | *3.0* | | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | *1.000* | | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *11.0* | *11.0* | | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | *0* | | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *4.0* | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

**Lane Group Capacity, Control Delay, and LOS Determination**

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *595* | | *202* | *255* | | *64* | *197* | | | | |
| Lane Group Capacity, c | | *930* | | *445* | *776* | | *1610* | *771* | | | | |
| v/c Ratio, X | | *0.64* | | *0.45* | *0.33* | | *0.04* | *0.26* | | | | |
| Total Green Ratio, g/C | | *0.27* | | *0.43* | *0.39* | | *0.48* | *0.48* | | | | |
| Uniform Delay, $d_1$ | | *24.3* | | *21.5* | *16.2* | | *10.3* | *11.6* | | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.385* | *1.000* | | | | |
| Delay Calibration, k | | *0.22* | | *0.11* | *0.11* | | *0.11* | *0.11* | | | | |
| Incremental Delay, $d_2$ | | *1.5* | | *0.7* | *0.2* | | *0.0* | *0.2* | | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Control Delay | | *25.8* | | *22.3* | *16.4* | | *4.0* | *11.7* | | | | |
| Lane Group LOS | | *C* | | *C* | *B* | | *A* | *B* | | | | |
| Approach Delay | *25.8* | | | *19.0* | | | *9.8* | | | | | |
| Approach LOS | *C* | | | *B* | | | *A* | | | | | |
| Intersection Delay | *20.3* | | | $X_C$ = *0.48* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr/NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/29/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | | *LTR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *156* | *522* | *87* | *19* | *485* | *90* | *147* | *50* | *19* | *238* | *39* | *321* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.92* | *0.92* | *0.92* | *0.90* | *0.90* | *0.90* | *0.90* | *0.90* | *0.90* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | EB Only | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *5.0* | G = | G = | G = *25.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *65.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *805* | | | *646* | | | *240* | | *264* | *400* | |
| Lane Group Capacity, c | | *1187* | | | *993* | | | *312* | | *438* | *578* | |
| v/c Ratio, X | | *0.68* | | | *0.65* | | | *0.77* | | *0.60* | *0.69* | |
| Total Green Ratio, g/C | | *0.46* | | | *0.31* | | | *0.38* | | *0.38* | *0.38* | |
| Uniform Delay, $d_1$ | | *13.7* | | | *19.5* | | | *17.5* | | *16.0* | *16.8* | |
| Progression Factor, PF | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.25* | | | *0.23* | | | *0.32* | | *0.19* | *0.26* | |
| Incremental Delay, $d_2$ | | *1.6* | | | *1.5* | | | *11.1* | | *2.3* | *3.5* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *15.3* | | | *21.0* | | | *28.6* | | *18.4* | *20.3* | |
| Lane Group LOS | | *B* | | | *C* | | | *C* | | *B* | *C* | |
| Approach Delay | *15.3* | | | *21.0* | | | *28.6* | | | *19.5* | | |
| Approach LOS | *B* | | | *C* | | | *C* | | | *B* | | |
| Intersection Delay | *19.4* | | | $X_C$ = *0.90* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/9/07* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume, V (vph) | *7* | *71* | *268* | *129* | *10* | *168* | *28* | *743* | *222* | *144* | *345* | *2* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.93* | *0.93* | *0.93* | *0.89* | *0.89* | *0.89* | *0.94* | *0.94* | *0.94* | *0.97* | *0.97* | *0.97* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = | G = | G = | G = *23.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *60.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *372* | | *145* | *200* | | | *1056* | | *148* | *358* | |
| Lane Group Capacity, c | | *614* | | *250* | *499* | | | *1268* | | *415* | *921* | |
| v/c Ratio, X | | *0.61* | | *0.58* | *0.40* | | | *0.83* | | *0.36* | *0.39* | |
| Total Green Ratio, g/C | | *0.33* | | *0.33* | *0.33* | | | *0.38* | | *0.55* | *0.50* | |
| Uniform Delay, $d_1$ | | *16.7* | | *16.5* | *15.4* | | | *16.8* | | *16.0* | *9.3* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.19* | | *0.17* | *0.11* | | | *0.37* | | *0.11* | *0.11* | |
| Incremental Delay, $d_2$ | | *1.7* | | *3.4* | *0.5* | | | *4.9* | | *0.5* | *0.3* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *18.4* | | *19.9* | *15.9* | | | *21.7* | | *16.6* | *9.6* | |
| Lane Group LOS | | *B* | | *B* | *B* | | | *C* | | *B* | *A* | |
| Approach Delay | *18.4* | | | *17.6* | | | *21.7* | | | *11.6* | | |
| Approach LOS | *B* | | | *B* | | | *C* | | | *B* | | |
| Intersection Delay | *18.3* | | | $X_C$ = *1.04* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *PM Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *69* | *359* | | | *181* | *691* | | | | *520* | | *46* |
| % Heavy Vehicles, %HV | *4* | *4* | | | *2* | *2* | | | | *3* | | *3* |
| Peak-Hour Factor, PHF | *0.93* | *0.93* | | | *0.96* | *0.96* | | | | *0.92* | | *0.92* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *460* | | | *189* | *720* | | | | *565* | | *50* |
| Lane Group Capacity, c | | *793* | | | *826* | *1531* | | | | *742* | | *642* |
| v/c Ratio, X | | *0.58* | | | *0.23* | *0.47* | | | | *0.76* | | *0.08* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *17.0* | | | *13.9* | *0.0* | | | | *20.8* | | *14.6* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.17* | | | *0.11* | *0.11* | | | | *0.31* | | *0.11* |
| Incremental Delay, $d_2$ | | *1.1* | | | *0.1* | *0.2* | | | | *4.7* | | *0.1* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *18.0* | | | *14.0* | *0.2* | | | | *25.5* | | *14.7* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *C* | | *B* |
| Approach Delay | *18.0* | | | *3.1* | | | | | | *24.6* | | |
| Approach LOS | *B* | | | *A* | | | | | | *C* | | |
| Intersection Delay | *13.2* | | | $X_C$ = *0.67* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Saw Mill Rd/I-84 EB ramps* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *1* | | | | | *1* | *1* | *0* | *2* | |
| Lane Group | | *LT* | *R* | | | | | *T* | *R* | *DefL* | *T* | |
| Volume, V (vph) | *50* | *0* | *330* | | | | | *486* | *539* | *166* | *482* | |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | | | | | *0* | *0* | *2* | *2* | |
| Peak-Hour Factor, PHF | *0.73* | *0.73* | *0.73* | | | | | *0.83* | *0.83* | *0.87* | *0.87* | |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | | | | | *A* | *A* | *A* | *A* | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | *3* | | | | | *3* | *3* | *5* | *5* | |
| Unit Extension, UE | | *3.0* | *3.0* | | | | | *3.0* | *3.0* | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | | | | *0* | *0* | *150* | *0* | *0* | |
| Lane Width | | *12.0* | *12.0* | | | | | *11.0* | *11.0* | *11.0* | *11.0* | |
| Parking / Grade / Parking | *N* | *3* | *N* | | | | *N* | *8* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | | | | *0* | *0* | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | | | | *3.2* | | | *3.2* | | |

| Phasing | EB Only | 02 | 03 | 04 | SB Only | NS Perm | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *23.0* | G = | G = | G = | G = *10.0* | G = *27.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *68* | *452* | | | | | *586* | *469* | *191* | *554* | |
| Lane Group Capacity, c | | *541* | *483* | | | | | *635* | *540* | *333* | *1034* | |
| v/c Ratio, X | | *0.13* | *0.94* | | | | | *0.92* | *0.87* | *0.57* | *0.54* | |
| Total Green Ratio, g/C | | *0.31* | *0.31* | | | | | *0.36* | *0.36* | *0.56* | *0.56* | |
| Uniform Delay, $d_1$ | | *18.7* | *25.3* | | | | | *23.0* | *22.3* | *12.8* | *10.4* | |
| Progression Factor, PF | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | *0.897* | *0.152* | |
| Delay Calibration, k | | *0.11* | *0.45* | | | | | *0.44* | *0.40* | *0.17* | *0.14* | |
| Incremental Delay, $d_2$ | | *0.1* | *25.8* | | | | | *19.2* | *14.1* | *2.4* | *0.6* | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | *0.0* | *0.0* | |
| Control Delay | | *18.9* | *51.1* | | | | | *42.2* | *36.5* | *13.9* | *2.1* | |
| Lane Group LOS | | *B* | *D* | | | | | *D* | *D* | *B* | *A* | |
| Approach Delay | *46.9* | | | | | | *39.7* | | | *5.1* | | |
| Approach LOS | *D* | | | | | | *D* | | | *A* | | |
| Intersection Delay | *30.2* | | | $X_C$ = *1.15* | | | Intersection LOS | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6/Dingle Ridge Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *1* | *518* | *51* | *31* | *386* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.93* | *0.93* | *0.93* |
| Hourly Flow Rate, HFR (veh/h) | *1* | *545* | *53* | *33* | *415* | *1* |
| Percent Heavy Vehicles | *1* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *58* | *0* | *26* | *3* | *0* | *0* |
| Peak-Hour Factor, PHF | *0.90* | *0.90* | *0.90* | *0.38* | *0.38* | *0.38* |
| Hourly Flow Rate, HFR (veh/h) | *64* | *0* | *28* | *7* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *1* | *1* | *1* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *1* | *33* | | *92* | | | *7* | |
| C (m) (veh/h) | *1147* | *982* | | *358* | | | *278* | |
| v/c | *0.00* | *0.03* | | *0.26* | | | *0.03* | |
| 95% queue length | *0.00* | *0.10* | | *1.01* | | | *0.08* | |
| Control Delay (s/veh) | *8.1* | *8.8* | | *20.1* | | | *18.3* | |
| LOS | *A* | *A* | | *C* | | | *C* | |
| Approach Delay (s/veh) | -- | -- | *20.1* | | | *18.3* | | |
| Approach LOS | -- | -- | *C* | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Rd/US Rt 6 & 202* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *51* | *571* | | | *362* | *34* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *1.00* | *1.00* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *53* | *601* | *0* | *0* | *406* | *38* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *9* | | *23* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.68* | *1.00* | *0.68* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *13* | *0* | *33* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *53* | | | | | | *46* | |
| C (m) (veh/h) | *1120* | | | | | | *537* | |
| v/c | *0.05* | | | | | | *0.09* | |
| 95% queue length | *0.15* | | | | | | *0.28* | |
| Control Delay (s/veh) | *8.4* | | | | | | *12.3* | |
| LOS | *A* | | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *12.3* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *508* | *197* | *59* | *352* | |
| Peak-Hour Factor, PHF | *1.00* | *0.85* | *0.85* | *0.97* | *0.97* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *597* | *231* | *60* | *362* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *256* | | *54* | | | |
| Peak-Hour Factor, PHF | *0.95* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *269* | *0* | *56* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *0* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | | *-4* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *60* | *269* | | *56* | | | |
| C (m) (veh/h) | | *983* | *264* | | *701* | | | |
| v/c | | *0.06* | *1.02* | | *0.08* | | | |
| 95% queue length | | *0.19* | *10.36* | | *0.26* | | | |
| Control Delay (s/veh) | | *8.9* | *102.1* | | *10.6* | | | |
| LOS | | *A* | *F* | | *B* | | | |
| Approach Delay (s/veh) | -- | -- | *86.3* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp*

North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *254* | | | *259* | |
| Peak-Hour Factor, PHF | *1.00* | *0.92* | *1.00* | *1.00* | *0.88* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *276* | *0* | *0* | *294* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *91* | | *56* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.83* | *1.00* | *0.83* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *109* | *0* | *67* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *1* | *0* | *1* |
| Percent Grade (%) | *0* | | | *-3* | | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *176* | | | | |
| C (m) (veh/h) | | | | *783* | | | | |
| v/c | | | | *0.22* | | | | |
| 95% queue length | | | | *0.86* | | | | |
| Control Delay (s/veh) | | | | *12.9* | | | | |
| LOS | | | | *B* | | | | |
| Approach Delay (s/veh) | -- | -- | *12.9* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/28/2006* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Route 121/ I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp*

North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *252* | *210* | *92* | *258* | |
| Peak-Hour Factor, PHF | *1.00* | *0.97* | *0.97* | *0.82* | *0.82* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *259* | *216* | *112* | *314* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *2* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *112* | | | | | | |
| C (m) (veh/h) | | *1087* | | | | | | |
| v/c | | *0.10* | | | | | | |
| 95% queue length | | *0.34* | | | | | | |
| Control Delay (s/veh) | | *8.7* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

### General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

### Site Information

| | |
|---|---|
| Intersection | *Route 6 & Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *390* | *2* | *22* | *917* | *107* |
| Peak-Hour Factor, PHF | *0.94* | *0.94* | *0.94* | *0.98* | *0.98* | *0.98* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *414* | *2* | *22* | *935* | *109* |
| Percent Heavy Vehicles | *2* | -- | -- | *3* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *22* | *9* | *24* | *54* | *2* | *0* |
| Peak-Hour Factor, PHF | *0.66* | *0.66* | *0.66* | *0.79* | *0.79* | *0.79* |
| Hourly Flow Rate, HFR (veh/h) | *33* | *13* | *36* | *68* | *2* | *0* |
| Percent Heavy Vehicles | *8* | *8* | *8* | *2* | *2* | *2* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *22* | *46* | | *36* | | *70* | |
| C (m) (veh/h) | *662* | *1132* | *89* | | *780* | | *119* | |
| v/c | *0.00* | *0.02* | *0.52* | | *0.05* | | *0.59* | |
| 95% queue length | *0.00* | *0.06* | *2.26* | | *0.14* | | *2.91* | |
| Control Delay (s/veh) | *10.4* | *8.2* | *82.4* | | *9.8* | | *71.4* | |
| LOS | *B* | *A* | *F* | | *A* | | *F* | |
| Approach Delay (s/veh) | -- | -- | *50.6* | | | *71.4* | | |
| Approach LOS | -- | -- | *F* | | | *F* | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *US Route 6 and CR 50* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/30/2007* | Analysis Year | *No Build Condition* |
| Analysis Time Period | *P.M. Peak Hour* | | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *128* | *381* | | | *939* | *0* |
| Peak-Hour Factor, PHF | *0.98* | *0.98* | *1.00* | *1.00* | *0.98* | *0.98* |
| Hourly Flow Rate, HFR (veh/h) | *130* | *388* | *0* | *0* | *958* | *0* |
| Percent Heavy Vehicles | *3* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *7* | | *134* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.90* | *1.00* | *0.90* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *7* | *0* | *148* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *1* | *0* | *1* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *130* | | | | | *7* | | *148* |
| C (m) (veh/h) | *714* | | | | | *95* | | *313* |
| v/c | *0.18* | | | | | *0.07* | | *0.47* |
| 95% queue length | *0.66* | | | | | *0.23* | | *2.41* |
| Control Delay (s/veh) | *11.2* | | | | | *45.9* | | *26.4* |
| LOS | *B* | | | | | *E* | | *D* |
| Approach Delay (s/veh) | -- | -- | | | | *27.3* | | |
| Approach LOS | -- | -- | | | | *D* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *1* | *1* | *0* | *1* | *1* | | | *2* | *0* |
| Lane Group | | | | *L* | *LTR* | | *L* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *86* | *7* | *76* | *198* | *133* | | | *153* | *36* |
| % Heavy Vehicles, %HV | | | | *0* | *0* | *0* | *1* | *1* | | | *0* | *0* |
| Peak-Hour Factor, PHF | | | | *0.70* | *0.70* | *0.70* | *0.86* | *0.86* | | | *0.81* | *0.81* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | *3* | *3* | | *5* | *5* | | | *5* | |
| Unit Extension, UE | | | | *3.0* | *3.0* | | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | *1.000* | *1.000* | | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *40* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | *12.0* | *12.0* | | *11.0* | *11.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | *0* | *0* | | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *11.0* | G = | G = | G = | G = *26.0* | G = *23.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | *98* | *86* | | *230* | *155* | | | *233* | |
| Lane Group Capacity, c | | | | *266* | *252* | | *596* | *627* | | | *1083* | |
| v/c Ratio, X | | | | *0.37* | *0.34* | | *0.39* | *0.25* | | | *0.22* | |
| Total Green Ratio, g/C | | | | *0.15* | *0.15* | | *0.35* | *0.35* | | | *0.31* | |
| Uniform Delay, $d_1$ | | | | *28.9* | *28.7* | | *18.5* | *17.5* | | | *19.3* | |
| Progression Factor, PF | | | | *1.000* | *1.000* | | *0.646* | *0.646* | | | *0.705* | |
| Delay Calibration, k | | | | *0.11* | *0.11* | | *0.11* | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | *0.9* | *0.8* | | *0.4* | *0.2* | | | *0.1* | |
| Initial Queue Delay, $d_3$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | *29.7* | *29.6* | | *12.4* | *11.5* | | | *13.7* | |
| Lane Group LOS | | | | *C* | *C* | | *B* | *B* | | | *B* | |
| Approach Delay | | | | *29.7* | | | *12.0* | | | *13.7* | | |
| Approach LOS | | | | *C* | | | *B* | | | *B* | | |
| Intersection Delay | *16.6* | | | $X_C$ = *0.32* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *2* | | *0* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | *LR* | | | | |
| Volume, V (vph) | | *219* | *109* | *89* | *274* | | *110* | | *89* | | | |
| % Heavy Vehicles, %HV | | *0* | *0* | *0* | *0* | | *0* | | *0* | | | |
| Peak-Hour Factor, PHF | | *0.92* | *0.92* | *0.94* | *0.94* | | *0.83* | | *0.83* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | *3* | | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | *3.0* | | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | *1.000* | | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *11.0* | *11.0* | | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | *0* | | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *15.0* | G = *8.0* | G = | G = | G = *37.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *356* | | *95* | *291* | | *73* | *167* | | | | |
| Lane Group Capacity, c | | *710* | | *582* | *757* | | *1671* | *805* | | | | |
| v/c Ratio, X | | *0.50* | | *0.16* | *0.38* | | *0.04* | *0.21* | | | | |
| Total Green Ratio, g/C | | *0.20* | | *0.41* | *0.37* | | *0.49* | *0.49* | | | | |
| Uniform Delay, $d_1$ | | *26.7* | | *15.5* | *17.2* | | *9.8* | *10.7* | | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.351* | *1.000* | | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.11* | | *0.11* | *0.11* | | | | |
| Incremental Delay, $d_2$ | | *0.6* | | *0.1* | *0.3* | | *0.0* | *0.1* | | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Control Delay | | *27.2* | | *15.6* | *17.5* | | *3.5* | *10.9* | | | | |
| Lane Group LOS | | *C* | | *B* | *B* | | *A* | *B* | | | | |
| Approach Delay | *27.2* | | | *17.0* | | | *8.6* | | | | | |
| Approach LOS | *C* | | | *B* | | | *A* | | | | | |
| Intersection Delay | *18.7* | | | $X_C$ = *0.28* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr/ NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *12/29/2006* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | | *LTR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *228* | *387* | *92* | *31* | *364* | *76* | *115* | *34* | *9* | *69* | *31* | *166* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.93* | *0.93* | *0.93* | *0.95* | *0.95* | *0.95* | *0.76* | *0.76* | *0.76* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *35.0* | G = | G = | G = | G = *20.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *65.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *744* | | | *506* | | | *166* | | *91* | *259* | |
| Lane Group Capacity, c | | *1244* | | | *1678* | | | *290* | | *378* | *466* | |
| v/c Ratio, X | | *0.60* | | | *0.30* | | | *0.57* | | *0.24* | *0.56* | |
| Total Green Ratio, g/C | | *0.54* | | | *0.54* | | | *0.31* | | *0.31* | *0.31* | |
| Uniform Delay, $d_1$ | | *10.2* | | | *8.3* | | | *18.9* | | *16.8* | *18.8* | |
| Progression Factor, PF | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.19* | | | *0.11* | | | *0.17* | | *0.11* | *0.15* | |
| Incremental Delay, $d_2$ | | *0.8* | | | *0.1* | | | *2.7* | | *0.3* | *1.5* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *11.0* | | | *8.4* | | | *21.6* | | *17.2* | *20.3* | |
| Lane Group LOS | | *B* | | | *A* | | | *C* | | *B* | *C* | |
| Approach Delay | *11.0* | | | *8.4* | | | *21.6* | | | *19.5* | | |
| Approach LOS | *B* | | | *A* | | | *C* | | | *B* | | |
| Intersection Delay | *12.9* | | | $X_C$ = *0.59* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/12/07* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | | *LTR* | |
| Volume, V (vph) | *5* | *59* | *221* | *120* | *5* | *161* | *13* | *491* | *172* | *165* | *384* | *20* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.90* | *0.90* | *0.90* | *0.84* | *0.84* | *0.84* | *0.86* | *0.86* | *0.86* | *0.91* | *0.91* | *0.91* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = | G = | G = | G = *23.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *60.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *318* | | *143* | *198* | | | *786* | | | *625* | |
| Lane Group Capacity, c | | *614* | | *283* | *497* | | | *1265* | | | *1169* | |
| v/c Ratio, X | | *0.52* | | *0.51* | *0.40* | | | *0.62* | | | *0.53* | |
| Total Green Ratio, g/C | | *0.33* | | *0.33* | *0.33* | | | *0.38* | | | *0.50* | |
| Uniform Delay, $d_1$ | | *16.1* | | *16.0* | *15.4* | | | *15.0* | | | *10.2* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | | *1.000* | |
| Delay Calibration, k | | *0.12* | | *0.11* | *0.11* | | | *0.20* | | | *0.14* | |
| Incremental Delay, $d_2$ | | *0.8* | | *1.5* | *0.5* | | | *1.0* | | | *0.5* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | | *0.0* | |
| Control Delay | | *16.9* | | *17.5* | *15.9* | | | *15.9* | | | *10.7* | |
| Lane Group LOS | | *B* | | *B* | *B* | | | *B* | | | *B* | |
| Approach Delay | *16.9* | | | *16.6* | | | *15.9* | | | *10.7* | | |
| Approach LOS | *B* | | | *B* | | | *B* | | | *B* | | |
| Intersection Delay | *14.6* | | | $X_C$ = *0.72* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *49* | *181* | | | *138* | *434* | | | | *453* | | *38* |
| % Heavy Vehicles, %HV | *5* | *5* | | | *1* | *1* | | | | *2* | | *2* |
| Peak-Hour Factor, PHF | *0.91* | *0.91* | | | *0.98* | *0.98* | | | | *0.95* | | *0.95* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *253* | | | *141* | *443* | | | | *477* | | *40* |
| Lane Group Capacity, c | | *782* | | | *834* | *1546* | | | | *750* | | *648* |
| v/c Ratio, X | | *0.32* | | | *0.17* | *0.29* | | | | *0.64* | | *0.06* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *14.6* | | | *13.5* | *0.0* | | | | *19.3* | | *14.5* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.11* | | | *0.11* | *0.11* | | | | *0.22* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.2* | | | *0.1* | *0.1* | | | | *1.8* | | *0.0* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *14.9* | | | *13.6* | *0.1* | | | | *21.1* | | *14.5* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *C* | | *B* |
| Approach Delay | *14.9* | | | *3.4* | | | | | | *20.6* | | |
| Approach LOS | *B* | | | *A* | | | | | | *C* | | |
| Intersection Delay | *12.1* | | | $X_C$ = *0.47* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Saw Mill Rd / I-84 EB ramps* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *No Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *1* | | | | | *1* | *1* | *0* | *2* | |
| Lane Group | | *LT* | *R* | | | | | *T* | *R* | | *LT* | |
| Volume, V (vph) | *60* | *0* | *240* | | | | | *261* | *225* | *78* | *282* | |
| % Heavy Vehicles, %HV | *0* | *0* | *0* | | | | | *2* | *2* | *0* | *0* | |
| Peak-Hour Factor, PHF | *0.84* | *0.84* | *0.84* | | | | | *0.86* | *0.86* | *0.92* | *0.92* | |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | | | | | *A* | *A* | *A* | *A* | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Arrival Type, AT | | *3* | *3* | | | | | *3* | *3* | | *5* | |
| Unit Extension, UE | | *3.0* | *3.0* | | | | | *3.0* | *3.0* | | *3.0* | |
| Filtering/Metering, I | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | | | | *0* | *0* | *0* | *0* | *0* | |
| Lane Width | | *12.0* | *12.0* | | | | | *11.0* | *11.0* | | *11.0* | |
| Parking / Grade / Parking | *N* | *3* | *N* | | | | *N* | *8* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | | | | *0* | *0* | | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | | | | *3.2* | | | *3.2* | | |

| Phasing | EB Only | 02 | 03 | 04 | SB Only | NB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *10.0* | G = | G = | G = | G = *34.0* | G = *16.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *71* | *286* | | | | | *303* | *262* | | *392* | |
| Lane Group Capacity, c | | *238* | *658* | | | | | *369* | *313* | | *1608* | |
| v/c Ratio, X | | *0.30* | *0.43* | | | | | *0.82* | *0.84* | | *0.24* | |
| Total Green Ratio, g/C | | *0.13* | *0.41* | | | | | *0.21* | *0.21* | | *0.45* | |
| Uniform Delay, $d_1$ | | *29.3* | *15.7* | | | | | *28.1* | *28.3* | | *12.6* | |
| Progression Factor, PF | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *0.447* | |
| Delay Calibration, k | | *0.11* | *0.11* | | | | | *0.36* | *0.37* | | *0.11* | |
| Incremental Delay, $d_2$ | | *0.7* | *0.5* | | | | | *13.8* | *17.7* | | *0.1* | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Control Delay | | *30.0* | *16.2* | | | | | *41.9* | *46.0* | | *5.7* | |
| Lane Group LOS | | *C* | *B* | | | | | *D* | *D* | | *A* | |
| Approach Delay | *18.9* | | | | | | *43.8* | | | *5.7* | | |
| Approach LOS | *B* | | | | | | *D* | | | *A* | | |
| Intersection Delay | *25.7* | | | $X_C$ = *0.41* | | | Intersection LOS | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/29/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6/Dingle Ridge Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *278* | *37* | *38* | *344* | *0* |
| Peak-Hour Factor, PHF | *0.84* | *0.84* | *0.84* | *0.89* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *330* | *44* | *42* | *386* | *0* |
| Percent Heavy Vehicles | *1* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *33* | *0* | *34* | *0* | *0* | *1* |
| Peak-Hour Factor, PHF | *0.88* | *0.88* | *0.88* | *0.25* | *0.25* | *0.25* |
| Hourly Flow Rate, HFR (veh/h) | *37* | *0* | *38* | *0* | *0* | *4* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *0* | *42* | | *75* | | | *4* | |
| C (m) (veh/h) | *1176* | *1188* | | *722* | | | *822* | |
| v/c | *0.00* | *0.04* | | *0.10* | | | *0.00* | |
| 95% queue length | *0.00* | *0.11* | | *0.35* | | | *0.01* | |
| Control Delay (s/veh) | *8.1* | *8.1* | | *12.9* | | | *9.4* | |
| LOS | *A* | *A* | | *B* | | | *A* | |
| Approach Delay (s/veh) | -- | -- | *12.9* | | | *9.4* | | |
| Approach LOS | -- | -- | *B* | | | *A* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/29/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road / US 6* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *13* | *301* | | | *356* | *19* |
| Peak-Hour Factor, PHF | *0.83* | *0.83* | *1.00* | *1.00* | *0.87* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *15* | *362* | *0* | *0* | *409* | *21* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *11* | | *4* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.65* | *1.00* | *0.65* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *16* | *0* | *6* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *0* | | | *2* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *15* | | | | | | *22* | |
| C (m) (veh/h) | *1133* | | | | | | *474* | |
| v/c | *0.01* | | | | | | *0.05* | |
| 95% queue length | *0.04* | | | | | | *0.15* | |
| Control Delay (s/veh) | *8.2* | | | | | | *13.0* | |
| LOS | *A* | | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *13.0* | | |
| Approach LOS | -- | -- | | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/29/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *302* | *194* | *53* | *309* | |
| Peak-Hour Factor, PHF | *1.00* | *0.80* | *0.80* | *0.90* | *0.90* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *377* | *242* | *58* | *343* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *179* | | *29* | | | |
| Peak-Hour Factor, PHF | *0.94* | *1.00* | *0.94* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *190* | *0* | *30* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *2* | *0* | *2* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *58* | *190* | | *30* | | | |
| C (m) (veh/h) | | *1185* | *375* | | *822* | | | |
| v/c | | *0.05* | *0.51* | | *0.04* | | | |
| 95% queue length | | *0.15* | *2.75* | | *0.11* | | | |
| Control Delay (s/veh) | | *8.2* | *24.1* | | *9.5* | | | |
| LOS | | *A* | *C* | | *A* | | | |
| Approach Delay (s/veh) | -- | -- | *22.1* | | | | | |
| Approach LOS | -- | -- | *C* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/29/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp* | North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *136* | | | *222* | |
| Peak-Hour Factor, PHF | *1.00* | *0.79* | *1.00* | *1.00* | *0.93* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *172* | *0* | *0* | *238* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *111* | | *71* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.89* | *1.00* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *124* | *0* | *79* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *2* | *0* | *2* |
| Percent Grade (%) | *0* | | | *-3* | | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *203* | | | | |
| C (m) (veh/h) | | | | *979* | | | | |
| v/c | | | | *0.21* | | | | |
| 95% queue length | | | | *0.78* | | | | |
| Control Delay (s/veh) | | | | *11.4* | | | | |
| LOS | | | | *B* | | | | |
| Approach Delay (s/veh) | -- | -- | *11.4* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *12/29/2006* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Route 121/ I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp*

North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *133* | *138* | *76* | *245* | |
| Peak-Hour Factor, PHF | *1.00* | *0.83* | *0.83* | *0.94* | *0.94* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *160* | *166* | *80* | *260* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *80* | | | | | | |
| C (m) (veh/h) | | *1239* | | | | | | |
| v/c | | *0.06* | | | | | | |
| 95% queue length | | *0.21* | | | | | | |
| Control Delay (s/veh) | | *8.1* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Route 6 & Sodom* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/30/2007* | Analysis Year | *No Build Condition* |
| Analysis Time Period | *Saturday Peak Hour* | | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *379* | *29* | *8* | *553* | *54* |
| Peak-Hour Factor, PHF | *0.92* | *0.92* | *0.92* | *0.89* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *411* | *31* | *8* | *621* | *60* |
| Percent Heavy Vehicles | *2* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *7* | *0* | *26* | *52* | *0* | *0* |
| Peak-Hour Factor, PHF | *0.80* | *0.80* | *0.80* | *0.78* | *0.78* | *0.78* |
| Hourly Flow Rate, HFR (veh/h) | *8* | *0* | *32* | *66* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *8* | *8* | | *32* | | *66* | |
| C (m) (veh/h) | *907* | *1122* | *170* | | *789* | | *248* | |
| v/c | *0.00* | *0.01* | *0.05* | | *0.04* | | *0.27* | |
| 95% queue length | *0.00* | *0.02* | *0.15* | | *0.13* | | *1.04* | |
| Control Delay (s/veh) | *9.0* | *8.2* | *27.2* | | *9.8* | | *24.7* | |
| LOS | *A* | *A* | *D* | | *A* | | *C* | |
| Approach Delay (s/veh) | -- | -- | *13.2* | | | *24.7* | | |
| Approach LOS | -- | -- | *B* | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Route 6 and CR 50* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *No Build Condition* |
| | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *70* | *423* | | | *495* | *6* |
| Peak-Hour Factor, PHF | *0.85* | *0.85* | *1.00* | *1.00* | *0.86* | *0.86* |
| Hourly Flow Rate, HFR (veh/h) | *82* | *497* | *0* | *0* | *575* | *6* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *10* | | *115* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.85* | *1.00* | *0.85* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *11* | *0* | *135* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *2* | *0* | *2* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *82* | | | | | *11* | | *135* |
| C (m) (veh/h) | *998* | | | | | *178* | | *516* |
| v/c | *0.08* | | | | | *0.06* | | *0.26* |
| 95% queue length | *0.27* | | | | | *0.20* | | *1.04* |
| Control Delay (s/veh) | *8.9* | | | | | *26.6* | | *14.4* |
| LOS | *A* | | | | | *D* | | *B* |
| Approach Delay (s/veh) | -- | -- | | | | *15.3* | | |
| Approach LOS | -- | -- | | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *1* | *1* | *0* | *1* | *1* | | | *2* | *0* |
| Lane Group | | | | *L* | *LTR* | | *L* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *460* | *5* | *430* | *259* | *191* | | | *177* | *80* |
| % Heavy Vehicles, %HV | | | | *3* | *3* | *3* | *1* | *1* | | | *1* | *1* |
| Peak-Hour Factor, PHF | | | | *0.92* | *0.92* | *0.92* | *0.86* | *0.86* | | | *0.92* | *0.92* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | *3* | *3* | | *5* | *5* | | | *5* | |
| Unit Extension, UE | | | | *3.0* | *3.0* | | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | *1.000* | *1.000* | | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *215* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | *12.0* | *12.0* | | *11.0* | *11.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | *0* | *0* | | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *19.0* | G = | G = | G = | G = *18.0* | G = *23.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | *400* | *339* | | *301* | *222* | | | *279* | |
| Lane Group Capacity, c | | | | *446* | *415* | | *413* | *434* | | | *1052* | |
| v/c Ratio, X | | | | *0.90* | *0.82* | | *0.73* | *0.51* | | | *0.27* | |
| Total Green Ratio, g/C | | | | *0.25* | *0.25* | | *0.24* | *0.24* | | | *0.31* | |
| Uniform Delay, $d_1$ | | | | *27.1* | *26.4* | | *26.3* | *24.7* | | | *19.6* | |
| Progression Factor, PF | | | | *1.000* | *1.000* | | *0.789* | *0.789* | | | *0.705* | |
| Delay Calibration, k | | | | *0.42* | *0.36* | | *0.29* | *0.12* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | *20.4* | *12.1* | | *6.4* | *1.0* | | | *0.1* | |
| Initial Queue Delay, $d_3$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | *47.5* | *38.4* | | *27.1* | *20.5* | | | *14.0* | |
| Lane Group LOS | | | | *D* | *D* | | *C* | *C* | | | *B* | |
| Approach Delay | | | | *43.3* | | | *24.3* | | | *14.0* | | |
| Approach LOS | | | | *D* | | | *C* | | | *B* | | |
| Intersection Delay | *31.6* | | | $X_C$ = *0.60* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *2* | | *0* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | *LR* | | | | |
| Volume, V (vph) | | *98* | *141* | *117* | *577* | | *572* | | *66* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *0* | *0* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.89* | *0.89* | *0.80* | *0.80* | | *0.87* | | *0.87* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | *3* | | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | *3.0* | | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | *1.000* | | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *11.0* | *11.0* | | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | *0* | | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = *10.0* | G = | G = | G = *37.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *268* | | *146* | *721* | | *361* | *372* | | | | |
| Lane Group Capacity, c | | *585* | | *644* | *757* | | *1655* | *836* | | | | |
| v/c Ratio, X | | *0.46* | | *0.23* | *0.95* | | *0.22* | *0.44* | | | | |
| Total Green Ratio, g/C | | *0.17* | | *0.41* | *0.37* | | *0.49* | *0.49* | | | | |
| Uniform Delay, $d_1$ | | *27.8* | | *15.0* | *22.9* | | *10.8* | *12.3* | | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.351* | *1.000* | | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.46* | | *0.11* | *0.11* | | | | |
| Incremental Delay, $d_2$ | | *0.6* | | *0.2* | *21.8* | | *0.1* | *0.4* | | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Control Delay | | *28.4* | | *15.1* | *44.7* | | *3.9* | *12.7* | | | | |
| Lane Group LOS | | *C* | | *B* | *D* | | *A* | *B* | | | | |
| Approach Delay | *28.4* | | | *39.7* | | | *8.3* | | | | | |
| Approach LOS | *C* | | | *D* | | | *A* | | | | | |
| Intersection Delay | *25.8* | | | $X_C$ = *0.66* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr, and NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | *DefL* | *TR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *130* | *390* | *113* | *43* | *1205* | *99* | *95* | *28* | *10* | *180* | *98* | *116* |
| % Heavy Vehicles, %HV | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* |
| Peak-Hour Factor, PHF | *0.74* | *0.74* | *0.74* | *0.91* | *0.91* | *0.91* | *0.80* | *0.80* | *0.80* | *0.91* | *0.91* | *0.91* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | *2.0* | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | *2.0* | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | *3* | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | *3.0* | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | *1.000* | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | *0.0* | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | *12.0* | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | *0* | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | EB Only | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *30.0* | G = *4.0* | G = | G = | G = *16.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *65.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | *176* | *680* | | | *1480* | | | *166* | | *198* | *235* | |
| Lane Group Capacity, c | *420* | *1023* | | | *1450* | | | *202* | | *292* | *378* | |
| v/c Ratio, X | *0.42* | *0.66* | | | *1.02* | | | *0.82* | | *0.68* | *0.62* | |
| Total Green Ratio, g/C | *0.65* | *0.60* | | | *0.46* | | | *0.25* | | *0.25* | *0.25* | |
| Uniform Delay, $d_1$ | *19.2* | *8.6* | | | *17.5* | | | *23.2* | | *22.2* | *21.8* | |
| Progression Factor, PF | *1.000* | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | *0.11* | *0.24* | | | *0.50* | | | *0.36* | | *0.25* | *0.20* | |
| Incremental Delay, $d_2$ | *0.7* | *1.6* | | | *29.0* | | | *23.0* | | *6.2* | *3.1* | |
| Initial Queue Delay, $d_3$ | *0.0* | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | *19.8* | *10.3* | | | *46.5* | | | *46.2* | | *28.4* | *25.0* | |
| Lane Group LOS | *B* | *B* | | | *D* | | | *D* | | *C* | *C* | |
| Approach Delay | *12.3* | | | *46.5* | | | *46.2* | | | *26.5* | | |
| Approach LOS | *B* | | | *D* | | | *D* | | | *C* | | |
| Intersection Delay | *33.5* | | | $X_C$ = *1.40* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume, V (vph) | *2* | *82* | *113* | *232* | *6* | *120* | *18* | *800* | *601* | *176* | *290* | *3* |
| % Heavy Vehicles, %HV | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* | *5* |
| Peak-Hour Factor, PHF | *0.74* | *0.74* | *0.74* | *0.85* | *0.85* | *0.85* | *0.97* | *0.97* | *0.97* | *0.88* | *0.88* | *0.88* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = *2.0* | G = | G = | G = *33.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *70.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *267* | | *273* | *148* | | | *1464* | | *200* | *333* | |
| Lane Group Capacity, c | | *340* | | *335* | *411* | | | *1472* | | *344* | *1012* | |
| v/c Ratio, X | | *0.79* | | *0.81* | *0.36* | | | *0.99* | | *0.58* | *0.33* | |
| Total Green Ratio, g/C | | *0.19* | | *0.33* | *0.29* | | | *0.47* | | *0.61* | *0.57* | |
| Uniform Delay, $d_1$ | | *27.2* | | *26.5* | *19.9* | | | *18.4* | | *23.7* | *7.9* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.33* | | *0.36* | *0.11* | | | *0.50* | | *0.17* | *0.11* | |
| Incremental Delay, $d_2$ | | *11.5* | | *14.4* | *0.5* | | | *22.1* | | *2.5* | *0.2* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *38.7* | | *40.9* | *20.4* | | | *40.5* | | *26.1* | *8.1* | |
| Lane Group LOS | | *D* | | *D* | *C* | | | *D* | | *C* | *A* | |
| Approach Delay | *38.7* | | | *33.7* | | | *40.5* | | | *14.9* | | |
| Approach LOS | *D* | | | *C* | | | *D* | | | *B* | | |
| Intersection Delay | *34.2* | | | $X_C$ = *1.22* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *AM Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *15* | *176* | | | *516* | *436* | | | | *530* | | *115* |
| % Heavy Vehicles, %HV | *22* | *22* | | | *5* | *5* | | | | *7* | | *7* |
| Peak-Hour Factor, PHF | *0.75* | *0.75* | | | *0.93* | *0.93* | | | | *0.77* | | *0.77* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *255* | | | *555* | *469* | | | | *688* | | *149* |
| Lane Group Capacity, c | | *699* | | | *802* | *1487* | | | | *714* | | *618* |
| v/c Ratio, X | | *0.36* | | | *0.69* | *0.32* | | | | *0.96* | | *0.24* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *14.9* | | | *18.2* | *0.0* | | | | *23.9* | | *15.7* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.11* | | | *0.26* | *0.11* | | | | *0.47* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.3* | | | *2.6* | *0.1* | | | | *24.9* | | *0.2* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *15.3* | | | *20.8* | *0.1* | | | | *48.8* | | *15.9* |
| Lane Group LOS | | *B* | | | *C* | *A* | | | | *D* | | *B* |
| Approach Delay | *15.3* | | | *11.3* | | | | | | *43.0* | | |
| Approach LOS | *B* | | | *B* | | | | | | *D* | | |
| Intersection Delay | *24.3* | | | $X_C$ = *0.82* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Saw Mill Rd/I-84 EB ramps* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *1* | | | | | *1* | *1* | *0* | *2* | |
| Lane Group | | *LT* | *R* | | | | | *T* | *R* | | *LT* | |
| Volume, V (vph) | *77* | *0* | *596* | | | | | *371* | *282* | *88* | *545* | |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | | | | | *0* | *0* | *2* | *2* | |
| Peak-Hour Factor, PHF | *0.89* | *0.89* | *0.89* | | | | | *0.89* | *0.89* | *0.96* | *0.96* | |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | | | | | *A* | *A* | *A* | *A* | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Arrival Type, AT | | *3* | *3* | | | | | *3* | *3* | | *5* | |
| Unit Extension, UE | | *3.0* | *3.0* | | | | | *3.0* | *3.0* | | *3.0* | |
| Filtering/Metering, I | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | | | | *0* | *0* | *50* | *0* | *0* | |
| Lane Width | | *12.0* | *12.0* | | | | | *11.0* | *11.0* | | *11.0* | |
| Parking / Grade / Parking | *N* | *3* | *N* | | | | *N* | *8* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | | | | *0* | *0* | | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | | | | *3.2* | | | *3.2* | | |

| Phasing | EB Only | 02 | 03 | 04 | SB Only | NB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *10.0* | G = | G = | G = | G = *30.0* | G = *20.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *75.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *87* | *670* | | | | | *417* | *261* | | *660* | |
| Lane Group Capacity, c | | *235* | *735* | | | | | *470* | *400* | | *1396* | |
| v/c Ratio, X | | *0.37* | *0.91* | | | | | *0.89* | *0.65* | | *0.47* | |
| Total Green Ratio, g/C | | *0.13* | *0.47* | | | | | *0.27* | *0.27* | | *0.40* | |
| Uniform Delay, $d_1$ | | *29.6* | *18.6* | | | | | *26.4* | *24.4* | | *16.6* | |
| Progression Factor, PF | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *0.556* | |
| Delay Calibration, k | | *0.11* | *0.43* | | | | | *0.41* | *0.23* | | *0.11* | |
| Incremental Delay, $d_2$ | | *1.0* | *15.6* | | | | | *18.3* | *3.8* | | *0.3* | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Control Delay | | *30.6* | *34.2* | | | | | *44.7* | *28.2* | | *9.5* | |
| Lane Group LOS | | *C* | *C* | | | | | *D* | *C* | | *A* | |
| Approach Delay | *33.8* | | | | | | *38.3* | | | *9.5* | | |
| Approach LOS | *C* | | | | | | *D* | | | *A* | | |
| Intersection Delay | *27.6* | | | $X_C$ = *0.66* | | | Intersection LOS | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6/Dingle Ridge Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *221* | *20* | *14* | *1150* | *2* |
| Peak-Hour Factor, PHF | *0.75* | *0.75* | *0.75* | *0.92* | *0.92* | *0.92* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *294* | *26* | *15* | *1249* | *2* |
| Percent Heavy Vehicles | *5* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *39* | *2* | *19* | *0* | *2* | *1* |
| Peak-Hour Factor, PHF | *0.78* | *0.78* | *0.78* | *0.38* | *0.38* | *0.38* |
| Hourly Flow Rate, HFR (veh/h) | *50* | *2* | *24* | *0* | *5* | *2* |
| Percent Heavy Vehicles | *3* | *3* | *3* | *3* | *3* | *3* |
| Percent Grade (%) | *2* | | | *2* | | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *0* | *15* | | *76* | | | *7* | |
| C (m) (veh/h) | *536* | *1244* | | *278* | | | *130* | |
| v/c | *0.00* | *0.01* | | *0.27* | | | *0.05* | |
| 95% queue length | *0.00* | *0.04* | | *1.08* | | | *0.17* | |
| Control Delay (s/veh) | *11.7* | *7.9* | | *24.1* | | | *34.3* | |
| LOS | *B* | *A* | | *C* | | | *D* | |
| Approach Delay (s/veh) | -- | -- | *24.1* | | | *34.3* | | |
| Approach LOS | -- | -- | *C* | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202*

North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West*

Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *15* | *230* | | | *1161* | *7* |
| Peak-Hour Factor, PHF | *0.73* | *0.73* | *1.00* | *1.00* | *0.91* | *0.91* |
| Hourly Flow Rate, HFR (veh/h) | *20* | *315* | *0* | *0* | *1275* | *7* |
| Percent Heavy Vehicles | *5* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *21* | | *55* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.86* | *1.00* | *0.86* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *24* | *0* | *63* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *3* | *0* | *3* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *20* | | | | | | *87* | |
| C (m) (veh/h) | *521* | | | | | | *238* | |
| v/c | *0.04* | | | | | | *0.37* | |
| 95% queue length | *0.12* | | | | | | *1.59* | |
| Control Delay (s/veh) | *12.2* | | | | | | *28.6* | |
| LOS | *B* | | | | | | *D* | |
| Approach Delay (s/veh) | -- | -- | | | | *28.6* | | |
| Approach LOS | -- | -- | | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *309* | *283* | *250* | *994* | |
| Peak-Hour Factor, PHF | *1.00* | *0.75* | *0.75* | *0.92* | *0.92* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *412* | *377* | *271* | *1080* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *5* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *327* | | *34* | | | |
| Peak-Hour Factor, PHF | *0.86* | *1.00* | *0.86* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *380* | *0* | *39* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *4* | *0* | *4* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *271* | *380* | | *39* | | | |
| C (m) (veh/h) | | *1122* | *85* | | *794* | | | |
| v/c | | *0.24* | *4.47* | | *0.05* | | | |
| 95% queue length | | *0.95* | *40.40* | | *0.15* | | | |
| Control Delay (s/veh) | | *9.2* | *1662* | | *9.8* | | | |
| LOS | | *A* | *F* | | *A* | | | |
| Approach Delay (s/veh) | -- | -- | *1508* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Route 121/ I-84 off-ramp* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/28/07* | Analysis Year | *Build Condition* |
| Analysis Time Period | *A.M. Peak Hour* | | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp* | North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *118* | | | *569* | |
| Peak-Hour Factor, PHF | *1.00* | *0.88* | *1.00* | *1.00* | *0.72* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *134* | *0* | *0* | *790* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *443* | | *220* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.87* | *1.00* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *509* | *0* | *252* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *5* | *0* | *5* |
| Percent Grade (%) | | *0* | | | *-3* | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

### Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *761* | | | | |
| C (m) (veh/h) | | | | *385* | | | | |
| v/c | | | | *1.98* | | | | |
| 95% queue length | | | | *52.44* | | | | |
| Control Delay (s/veh) | | | | *472.0* | | | | |
| LOS | | | | *F* | | | | |
| Approach Delay (s/veh) | -- | -- | *472.0* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Rt 121/I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

| | |
|---|---|
| East/West Street: *I-84 on-ramp* | North/South Street: *NYS Rt. 121 Peach Lake Rd.* |
| Intersection Orientation: *North-South* | Study Period (hrs): *0.25* |

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *118* | *71* | *94* | *914* | |
| Peak-Hour Factor, PHF | *1.00* | *0.91* | *0.91* | *0.89* | *0.89* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *129* | *78* | *105* | *1026* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *3* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *0* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *105* | | | | | | |
| C (m) (veh/h) | | *1358* | | | | | | |
| v/c | | *0.08* | | | | | | |
| 95% queue length | | *0.25* | | | | | | |
| Control Delay (s/veh) | | *7.9* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rt 6 and Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

| | |
|---|---|
| East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway* |
| Intersection Orientation: *East-West* | Study Period (hrs): *0.25* |

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *304* | *4* | *1* | *870* | *19* |
| Peak-Hour Factor, PHF | *0.85* | *0.85* | *0.85* | *0.95* | *0.95* | *0.95* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *357* | *4* | *1* | *915* | *20* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *7* | *3* | *13* | *31* | *0* | *5* |
| Peak-Hour Factor, PHF | *0.52* | *0.52* | *0.52* | *0.67* | *0.67* | *0.67* |
| Hourly Flow Rate, HFR (veh/h) | *13* | *5* | *25* | *46* | *0* | *7* |
| Percent Heavy Vehicles | *9* | *9* | *9* | *14* | *14* | *14* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *1* | *18* | | *25* | | *53* | |
| C (m) (veh/h) | *741* | *1209* | *120* | | *810* | | *153* | |
| v/c | *0.00* | *0.00* | *0.15* | | *0.03* | | *0.35* | |
| 95% queue length | *0.00* | *0.00* | *0.51* | | *0.10* | | *1.43* | |
| Control Delay (s/veh) | *9.9* | *8.0* | *40.2* | | *9.6* | | *40.5* | |
| LOS | *A* | *A* | *E* | | *A* | | *E* | |
| Approach Delay (s/veh) | -- | -- | *22.4* | | | *40.5* | | |
| Approach LOS | -- | -- | *C* | | | *E* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Route 6 and CR 50* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *67* | *302* | | | *882* | *0* |
| Peak-Hour Factor, PHF | *0.86* | *0.86* | *1.00* | *1.00* | *0.97* | *0.97* |
| Hourly Flow Rate, HFR (veh/h) | *77* | *351* | *0* | *0* | *909* | *0* |
| Percent Heavy Vehicles | *11* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *2* | | *148* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.87* | *1.00* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *2* | *0* | *170* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *10* | *0* | *10* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *77* | | | | | *2* | | *170* |
| C (m) (veh/h) | *713* | | | | | *130* | | *322* |
| v/c | *0.11* | | | | | *0.02* | | *0.53* |
| 95% queue length | *0.36* | | | | | *0.05* | | *2.91* |
| Control Delay (s/veh) | *10.7* | | | | | *33.1* | | *28.0* |
| LOS | *B* | | | | | *D* | | *D* |
| Approach Delay (s/veh) | -- | -- | | | | *28.1* | | |
| Approach LOS | -- | -- | | | | *D* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *1* | *1* | *0* | *1* | *1* | | | *2* | *0* |
| Lane Group | | | | *L* | *LTR* | | *L* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *334* | *3* | *122* | *345* | *242* | | | *411* | *161* |
| % Heavy Vehicles, %HV | | | | *1* | *1* | *1* | *1* | *1* | | | *1* | *1* |
| Peak-Hour Factor, PHF | | | | *0.89* | *0.89* | *0.89* | *0.88* | *0.88* | | | *0.92* | *0.92* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | *3* | *3* | | *5* | *5* | | | *5* | |
| Unit Extension, UE | | | | *3.0* | *3.0* | | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | *1.000* | *1.000* | | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *35* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | *12.0* | *12.0* | | *11.0* | *11.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | *0* | *0* | | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *13.0* | G = | G = | G = | G = *23.0* | G = *24.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | *263* | *213* | | *392* | *275* | | | *622* | |
| Lane Group Capacity, c | | | | *311* | *297* | | *527* | *555* | | | *1103* | |
| v/c Ratio, X | | | | *0.85* | *0.72* | | *0.74* | *0.50* | | | *0.56* | |
| Total Green Ratio, g/C | | | | *0.17* | *0.17* | | *0.31* | *0.31* | | | *0.32* | |
| Uniform Delay, $d_1$ | | | | *30.0* | *29.3* | | *23.4* | *21.3* | | | *21.2* | |
| Progression Factor, PF | | | | *1.000* | *1.000* | | *0.705* | *0.705* | | | *0.686* | |
| Delay Calibration, k | | | | *0.38* | *0.28* | | *0.30* | *0.11* | | | *0.16* | |
| Incremental Delay, $d_2$ | | | | *18.9* | *8.1* | | *5.7* | *0.7* | | | *0.7* | |
| Initial Queue Delay, $d_3$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | *49.0* | *37.3* | | *22.1* | *15.7* | | | *15.2* | |
| Lane Group LOS | | | | *D* | *D* | | *C* | *B* | | | *B* | |
| Approach Delay | | | | *43.8* | | | *19.5* | | | *15.2* | | |
| Approach LOS | | | | *D* | | | *B* | | | *B* | | |
| Intersection Delay | *24.5* | | | $X_C$ = *0.69* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *2* | | *0* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | *LR* | | | | |
| Volume, V (vph) | | *361* | *390* | *176* | *233* | | *242* | | *131* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *1* | *1* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.95* | *0.95* | *0.87* | *0.87* | | *0.98* | | *0.98* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | *3* | | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | *3.0* | | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | *1.000* | | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *11.0* | *11.0* | | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | *0* | | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *4.0* | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *791* | | *202* | *268* | | *124* | *257* | | | | |
| Lane Group Capacity, c | | *910* | | *400* | *776* | | *1610* | *786* | | | | |
| v/c Ratio, X | | *0.87* | | *0.50* | *0.35* | | *0.08* | *0.33* | | | | |
| Total Green Ratio, g/C | | *0.27* | | *0.43* | *0.39* | | *0.48* | *0.48* | | | | |
| Uniform Delay, $d_1$ | | *26.3* | | *24.8* | *16.3* | | *10.5* | *12.0* | | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.385* | *1.000* | | | | |
| Delay Calibration, k | | *0.40* | | *0.11* | *0.11* | | *0.11* | *0.11* | | | | |
| Incremental Delay, $d_2$ | | *9.1* | | *1.0* | *0.3* | | *0.0* | *0.2* | | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Control Delay | | *35.3* | | *25.8* | *16.5* | | *4.1* | *12.3* | | | | |
| Lane Group LOS | | *D* | | *C* | *B* | | *A* | *B* | | | | |
| Approach Delay | *35.3* | | | *20.5* | | | *9.6* | | | | | |
| Approach LOS | *D* | | | *C* | | | *A* | | | | | |
| Intersection Delay | *25.1* | | | $X_C$ = *0.55* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr, and NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | | *LTR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *156* | *630* | *87* | *28* | *675* | *143* | *147* | *50* | *26* | *368* | *39* | *321* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.92* | *0.92* | *0.92* | *0.90* | *0.90* | *0.90* | *0.90* | *0.90* | *0.90* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | EB Only | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = *5.0* | G = | G = | G = *25.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *65.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *919* | | | *919* | | | *248* | | *409* | *400* | |
| Lane Group Capacity, c | | *1097* | | | *939* | | | *315* | | *434* | *578* | |
| v/c Ratio, X | | *0.84* | | | *0.98* | | | *0.79* | | *0.94* | *0.69* | |
| Total Green Ratio, g/C | | *0.46* | | | *0.31* | | | *0.38* | | *0.38* | *0.38* | |
| Uniform Delay, $d_1$ | | *15.4* | | | *22.3* | | | *17.7* | | *19.3* | *16.8* | |
| Progression Factor, PF | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.37* | | | *0.48* | | | *0.33* | | *0.46* | *0.26* | |
| Incremental Delay, $d_2$ | | *5.9* | | | *24.2* | | | *12.5* | | *29.1* | *3.5* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *21.2* | | | *46.5* | | | *30.2* | | *48.4* | *20.3* | |
| Lane Group LOS | | *C* | | | *D* | | | *C* | | *D* | *C* | |
| Approach Delay | *21.2* | | | *46.5* | | | *30.2* | | | *34.5* | | |
| Approach LOS | *C* | | | *D* | | | *C* | | | *C* | | |
| Intersection Delay | *33.7* | | | $X_C$ = *0.97* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume, V (vph) | *7* | *71* | *289* | *173* | *10* | *168* | *28* | *819* | *336* | *144* | *388* | *2* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.93* | *0.93* | *0.93* | *0.89* | *0.89* | *0.89* | *0.94* | *0.94* | *0.94* | *0.97* | *0.97* | *0.97* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = | G = | G = | G = *23.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *60.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *395* | | *194* | *200* | | | *1258* | | *148* | *402* | |
| Lane Group Capacity, c | | *613* | | *237* | *499* | | | *1258* | | *415* | *921* | |
| v/c Ratio, X | | *0.64* | | *0.82* | *0.40* | | | *1.00* | | *0.36* | *0.44* | |
| Total Green Ratio, g/C | | *0.33* | | *0.33* | *0.33* | | | *0.38* | | *0.55* | *0.50* | |
| Uniform Delay, $d_1$ | | *17.0* | | *18.3* | *15.4* | | | *18.5* | | *18.1* | *9.6* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.22* | | *0.36* | *0.11* | | | *0.50* | | *0.11* | *0.11* | |
| Incremental Delay, $d_2$ | | *2.3* | | *19.8* | *0.5* | | | *25.4* | | *0.5* | *0.3* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *19.3* | | *38.1* | *15.9* | | | *43.9* | | *18.6* | *9.9* | |
| Lane Group LOS | | *B* | | *D* | *B* | | | *D* | | *B* | *A* | |
| Approach Delay | *19.3* | | | *26.8* | | | *43.9* | | | *12.3* | | |
| Approach LOS | *B* | | | *C* | | | *D* | | | *B* | | |
| Intersection Delay | *30.9* | | | $X_C$ = *1.17* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *PM Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *69* | *379* | | | *205* | *743* | | | | *564* | | *46* |
| % Heavy Vehicles, %HV | *4* | *4* | | | *2* | *2* | | | | *3* | | *3* |
| Peak-Hour Factor, PHF | *0.93* | *0.93* | | | *0.96* | *0.96* | | | | *0.92* | | *0.92* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *482* | | | *214* | *774* | | | | *613* | | *50* |
| Lane Group Capacity, c | | *792* | | | *826* | *1531* | | | | *742* | | *642* |
| v/c Ratio, X | | *0.61* | | | *0.26* | *0.51* | | | | *0.83* | | *0.08* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *17.3* | | | *14.1* | *0.0* | | | | *21.7* | | *14.6* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.19* | | | *0.11* | *0.11* | | | | *0.36* | | *0.11* |
| Incremental Delay, $d_2$ | | *1.4* | | | *0.2* | *0.3* | | | | *7.7* | | *0.1* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *18.6* | | | *14.3* | *0.3* | | | | *29.4* | | *14.7* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *C* | | *B* |
| Approach Delay | *18.6* | | | *3.3* | | | | | | *28.3* | | |
| Approach LOS | *B* | | | *A* | | | | | | *C* | | |
| Intersection Delay | *14.5* | | | $X_C$ = *0.71* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Saw Mill Rd / I-84 EB ramps* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *1* | | | | | *1* | *1* | *0* | *2* | |
| Lane Group | | *LT* | *R* | | | | | *T* | *R* | *DefL* | *T* | |
| Volume, V (vph) | *97* | *0* | *330* | | | | | *503* | *539* | *230* | *503* | |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | | | | | *0* | *0* | *2* | *2* | |
| Peak-Hour Factor, PHF | *0.73* | *0.73* | *0.73* | | | | | *0.83* | *0.83* | *0.87* | *0.87* | |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | | | | | *A* | *A* | *A* | *A* | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | *3* | | | | | *3* | *3* | *5* | *5* | |
| Unit Extension, UE | | *3.0* | *3.0* | | | | | *3.0* | *3.0* | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | | | | *0* | *0* | *150* | *0* | *0* | |
| Lane Width | | *12.0* | *12.0* | | | | | *11.0* | *11.0* | *11.0* | *11.0* | |
| Parking / Grade / Parking | *N* | *3* | *N* | | | | *N* | *8* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | | | | *0* | *0* | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | | | | *3.2* | | | *3.2* | | |

| Phasing | EB Only | 02 | 03 | 04 | SB Only | NS Perm | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *23.0* | G = | G = | G = | G = *10.0* | G = *27.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *133* | *452* | | | | | *606* | *469* | *264* | *578* | |
| Lane Group Capacity, c | | *541* | *483* | | | | | *635* | *540* | *333* | *1034* | |
| v/c Ratio, X | | *0.25* | *0.94* | | | | | *0.95* | *0.87* | *0.79* | *0.56* | |
| Total Green Ratio, g/C | | *0.31* | *0.31* | | | | | *0.36* | *0.36* | *0.56* | *0.56* | |
| Uniform Delay, $d_1$ | | *19.5* | *25.3* | | | | | *23.4* | *22.3* | *16.0* | *10.6* | |
| Progression Factor, PF | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | *0.897* | *0.152* | |
| Delay Calibration, k | | *0.11* | *0.45* | | | | | *0.46* | *0.40* | *0.34* | *0.16* | |
| Incremental Delay, $d_2$ | | *0.2* | *25.8* | | | | | *24.9* | *14.1* | *12.4* | *0.7* | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | *0.0* | *0.0* | |
| Control Delay | | *19.7* | *51.1* | | | | | *48.3* | *36.5* | *26.8* | *2.3* | |
| Lane Group LOS | | *B* | *D* | | | | | *D* | *D* | *C* | *A* | |
| Approach Delay | *44.0* | | | | | | *43.1* | | | *10.0* | | |
| Approach LOS | *D* | | | | | | *D* | | | *A* | | |
| Intersection Delay | *32.2* | | | $X_C$ = *1.18* | | | Intersection LOS | | | *C* | | |

## TWO-WAY STOP CONTROL SUMMARY

### General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

### Site Information

| | |
|---|---|
| Intersection | *US 6/Dingle Ridge Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *1* | *703* | *56* | *31* | *515* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.93* | *0.93* | *0.93* |
| Hourly Flow Rate, HFR (veh/h) | *1* | *740* | *58* | *33* | *553* | *1* |
| Percent Heavy Vehicles | *1* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *61* | *0* | *26* | *3* | *0* | *0* |
| Peak-Hour Factor, PHF | *0.90* | *0.90* | *0.90* | *0.38* | *0.38* | *0.38* |
| Hourly Flow Rate, HFR (veh/h) | *67* | *0* | *28* | *7* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *1* | *1* | *1* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *1* | *33* | | *95* | | | *7* | |
| C (m) (veh/h) | *1019* | *827* | | *213* | | | *185* | |
| v/c | *0.00* | *0.04* | | *0.45* | | | *0.04* | |
| 95% queue length | *0.00* | *0.12* | | *2.11* | | | *0.12* | |
| Control Delay (s/veh) | *8.5* | *9.5* | | *34.8* | | | *25.2* | |
| LOS | *A* | *A* | | *D* | | | *D* | |
| Approach Delay (s/veh) | -- | -- | *34.8* | | | *25.2* | | |
| Approach LOS | -- | -- | *D* | | | *D* | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Joe's Hill Rd/ US 6* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast, NY* |
| Date Performed | *10/28/2007* | Analysis Year | *Build Condition* |
| Analysis Time Period | *P.M. Peak Hour* | | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *55* | *761* | | | *494* | *34* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *1.00* | *1.00* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *57* | *801* | *0* | *0* | *555* | *38* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *9* | | *27* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.68* | *1.00* | *0.68* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *13* | *0* | *39* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *57* | | | | | | *52* | |
| C (m) (veh/h) | *986* | | | | | | *434* | |
| v/c | *0.06* | | | | | | *0.12* | |
| 95% queue length | *0.18* | | | | | | *0.40* | |
| Control Delay (s/veh) | *8.9* | | | | | | *14.4* | |
| LOS | *A* | | | | | | *B* | |
| Approach Delay (s/veh) | -- | -- | | | | *14.4* | | |
| Approach LOS | -- | -- | | | | *B* | | |

## TWO-WAY STOP CONTROL SUMMARY

### General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

### Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *753* | *197* | *113* | *504* | |
| Peak-Hour Factor, PHF | *1.00* | *0.85* | *0.85* | *0.97* | *0.97* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *885* | *231* | *116* | *519* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *256* | | *108* | | | |
| Peak-Hour Factor, PHF | *0.95* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *269* | *0* | *113* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *1* | *0* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *116* | *269* | | *113* | | | |
| C (m) (veh/h) | | *767* | *117* | | *566* | | | |
| v/c | | *0.15* | *2.30* | | *0.20* | | | |
| 95% queue length | | *0.53* | *23.32* | | *0.74* | | | |
| Control Delay (s/veh) | | *10.5* | *670.5* | | *12.9* | | | |
| LOS | | *B* | *F* | | *B* | | | |
| Approach Delay (s/veh) | -- | -- | *476.0* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Route 121/ I-84 off-ramp* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/28/07* | Analysis Year | *Build Condition* |
| Analysis Time Period | *P.M. Peak Hour* | | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp* | North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *259* | | | *313* | |
| Peak-Hour Factor, PHF | *1.00* | *0.92* | *1.00* | *1.00* | *0.88* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *281* | *0* | *0* | *355* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *91* | | *103* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.83* | *1.00* | *0.83* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *109* | *0* | *124* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *1* | *0* | *1* |
| Percent Grade (%) | | *0* | | | *-3* | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *233* | | | | |
| C (m) (veh/h) | | | | *949* | | | | |
| v/c | | | | *0.25* | | | | |
| 95% queue length | | | | *0.97* | | | | |
| Control Delay (s/veh) | | | | *13.0* | | | | |
| LOS | | | | *B* | | | | |
| Approach Delay (s/veh) | -- | -- | *13.0* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *NYS Rte 121/I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp* | North/South Street: *NYS Rt. 121 Peach Lake Rd.*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *259* | *210* | *139* | *265* | |
| Peak-Hour Factor, PHF | *1.00* | *0.97* | *0.97* | *0.82* | *0.82* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *267* | *216* | *169* | *323* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *2* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *169* | | | | | | |
| C (m) (veh/h) | | *1080* | | | | | | |
| v/c | | *0.16* | | | | | | |
| 95% queue length | | *0.55* | | | | | | |
| Control Delay (s/veh) | | *9.0* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 6 & Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *433* | *2* | *22* | *993* | *107* |
| Peak-Hour Factor, PHF | *0.94* | *0.94* | *0.94* | *0.98* | *0.98* | *0.98* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *460* | *2* | *22* | *1013* | *109* |
| Percent Heavy Vehicles | *2* | -- | -- | *3* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *22* | *9* | *24* | *54* | *2* | *0* |
| Peak-Hour Factor, PHF | *0.66* | *0.66* | *0.66* | *0.79* | *0.79* | *0.79* |
| Hourly Flow Rate, HFR (veh/h) | *33* | *13* | *36* | *68* | *2* | *0* |
| Percent Heavy Vehicles | *8* | *8* | *8* | *2* | *2* | *2* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *22* | *46* | | *36* | | *70* | |
| C (m) (veh/h) | *618* | *1088* | *71* | | *753* | | *98* | |
| v/c | *0.00* | *0.02* | *0.65* | | *0.05* | | *0.71* | |
| 95% queue length | *0.00* | *0.06* | *2.88* | | *0.15* | | *3.66* | |
| Control Delay (s/veh) | *10.8* | *8.4* | *121.6* | | *10.0* | | *103.7* | |
| LOS | *B* | *A* | *F* | | *B* | | *F* | |
| Approach Delay (s/veh) | -- | -- | *72.6* | | | *103.7* | | |
| Approach LOS | -- | -- | *F* | | | *F* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Route 6 and CR 50* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *128* | *424* | | | *1015* | *0* |
| Peak-Hour Factor, PHF | *0.98* | *0.98* | *1.00* | *1.00* | *0.98* | *0.98* |
| Hourly Flow Rate, HFR (veh/h) | *130* | *432* | *0* | *0* | *1035* | *0* |
| Percent Heavy Vehicles | *3* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *7* | | *134* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.90* | *1.00* | *0.90* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *7* | *0* | *148* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *1* | *0* | *1* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *130* | | | | | *7* | | *148* |
| C (m) (veh/h) | *668* | | | | | *79* | | *283* |
| v/c | *0.19* | | | | | *0.09* | | *0.52* |
| 95% queue length | *0.72* | | | | | *0.28* | | *2.82* |
| Control Delay (s/veh) | *11.7* | | | | | *55.0* | | *30.9* |
| LOS | *B* | | | | | *F* | | *D* |
| Approach Delay (s/veh) | -- | -- | | | | *32.0* | | |
| Approach LOS | -- | -- | | | | *D* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *I-84 WB ramps/Saw Mill* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | | | *1* | *1* | *0* | *1* | *1* | | | *2* | *0* |
| Lane Group | | | | *L* | *LTR* | | *L* | *T* | | | *TR* | |
| Volume, V (vph) | | | | *186* | *7* | *159* | *198* | *222* | | | *250* | *146* |
| % Heavy Vehicles, %HV | | | | *0* | *0* | *0* | *1* | *1* | | | *0* | *0* |
| Peak-Hour Factor, PHF | | | | *0.70* | *0.70* | *0.70* | *0.86* | *0.86* | | | *0.81* | *0.81* |
| Pretimed (P) or Actuated (A) | | | | *A* | *A* | *A* | *A* | *A* | | | *A* | *A* |
| Start-up Lost Time, $l_1$ | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Extension of Effective Green, e | | | | *2.0* | *2.0* | | *2.0* | *2.0* | | | *2.0* | |
| Arrival Type, AT | | | | *3* | *3* | | *5* | *5* | | | *5* | |
| Unit Extension, UE | | | | *3.0* | *3.0* | | *3.0* | *3.0* | | | *3.0* | |
| Filtering/Metering, I | | | | *1.000* | *1.000* | | *1.000* | *1.000* | | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Ped / Bike / RTOR Volumes | | | | *0* | *0* | *80* | *0* | *0* | | *0* | *0* | *0* |
| Lane Width | | | | *12.0* | *12.0* | | *11.0* | *11.0* | | | *12.0* | |
| Parking / Grade / Parking | | | | *N* | *-1* | *N* | *N* | *1* | *N* | *N* | *-1* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | | | *0* | *0* | | *0* | *0* | | | *0* | |
| Min. Time for Pedestrians, $G_p$ | | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | WB Only | 02 | 03 | 04 | NB Only | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *11.0* | G = | G = | G = | G = *26.0* | G = *23.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | | | *213* | *176* | | *230* | *258* | | | *489* | |
| Lane Group Capacity, c | | | | *266* | *249* | | *596* | *627* | | | *1053* | |
| v/c Ratio, X | | | | *0.80* | *0.71* | | *0.39* | *0.41* | | | *0.46* | |
| Total Green Ratio, g/C | | | | *0.15* | *0.15* | | *0.35* | *0.35* | | | *0.31* | |
| Uniform Delay, $d_1$ | | | | *30.9* | *30.5* | | *18.5* | *18.7* | | | *21.0* | |
| Progression Factor, PF | | | | *1.000* | *1.000* | | *0.646* | *0.646* | | | *0.705* | |
| Delay Calibration, k | | | | *0.34* | *0.27* | | *0.11* | *0.11* | | | *0.11* | |
| Incremental Delay, $d_2$ | | | | *15.9* | *8.9* | | *0.4* | *0.4* | | | *0.3* | |
| Initial Queue Delay, $d_3$ | | | | *0.0* | *0.0* | | *0.0* | *0.0* | | | *0.0* | |
| Control Delay | | | | *46.9* | *39.3* | | *12.4* | *12.5* | | | *15.1* | |
| Lane Group LOS | | | | *D* | *D* | | *B* | *B* | | | *B* | |
| Approach Delay | | | | *43.5* | | | *12.4* | | | *15.1* | | |
| Approach LOS | | | | *D* | | | *B* | | | *B* | | |
| Intersection Delay | *22.2* | | | $X_C$ = *0.50* | | | Intersection LOS | | | *C* | | |



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# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and Saw Mill Rd* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *1* | | *2* | | *0* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | *LR* | | | | |
| Volume, V (vph) | | *233* | *316* | *89* | *290* | | *287* | | *89* | | | |
| % Heavy Vehicles, %HV | | *0* | *0* | *0* | *0* | | *0* | | *0* | | | |
| Peak-Hour Factor, PHF | | *0.92* | *0.92* | *0.94* | *0.94* | | *0.83* | | *0.83* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | *2.0* | | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *5* | *3* | | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | *3.0* | | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | *1.000* | | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *13.0* | | *13.0* | *14.0* | | *11.0* | *11.0* | | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *0* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | *0* | | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *15.0* | G = *8.0* | G = | G = | G = *37.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *596* | | *95* | *309* | | *190* | *263* | | | | |
| Lane Group Capacity, c | | *683* | | *503* | *757* | | *1671* | *826* | | | | |
| v/c Ratio, X | | *0.87* | | *0.19* | *0.41* | | *0.11* | *0.32* | | | | |
| Total Green Ratio, g/C | | *0.20* | | *0.41* | *0.37* | | *0.49* | *0.49* | | | | |
| Uniform Delay, $d_1$ | | *29.1* | | *19.5* | *17.4* | | *10.2* | *11.4* | | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *0.351* | *1.000* | | | | |
| Delay Calibration, k | | *0.40* | | *0.11* | *0.11* | | *0.11* | *0.11* | | | | |
| Incremental Delay, $d_2$ | | *12.0* | | *0.2* | *0.4* | | *0.0* | *0.2* | | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | *0.0* | | | | |
| Control Delay | | *41.0* | | *19.7* | *17.7* | | *3.6* | *11.6* | | | | |
| Lane Group LOS | | *D* | | *B* | *B* | | *A* | *B* | | | | |
| Approach Delay | *41.0* | | | *18.2* | | | *8.3* | | | | | |
| Approach LOS | *D* | | | *B* | | | *A* | | | | | |
| Intersection Delay | *24.5* | | | $X_C$ = *0.39* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6, Starr, and NYS 22 ramp* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *2* | *0* | *0* | *2* | *0* | *0* | *1* | *0* | *1* | *1* | *0* |
| Lane Group | | *LTR* | | | *LTR* | | | *LTR* | | *L* | *TR* | |
| Volume, V (vph) | *228* | *551* | *92* | *40* | *581* | *136* | *115* | *31* | *19* | *265* | *31* | *166* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.95* | *0.95* | *0.95* | *0.93* | *0.93* | *0.93* | *0.95* | *0.95* | *0.95* | *0.76* | *0.76* | *0.76* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *12.0* | | | *12.0* | | | *15.0* | | *10.0* | *9.0* | |
| Parking / Grade / Parking | *N* | *5* | *N* | *N* | *-2* | *N* | *N* | *-6* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *35.0* | G = | G = | G = | G = *20.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *65.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *917* | | | *814* | | | *174* | | *349* | *259* | |
| Lane Group Capacity, c | | *1104* | | | *1647* | | | *293* | | *374* | *466* | |
| v/c Ratio, X | | *0.83* | | | *0.49* | | | *0.59* | | *0.93* | *0.56* | |
| Total Green Ratio, g/C | | *0.54* | | | *0.54* | | | *0.31* | | *0.31* | *0.31* | |
| Uniform Delay, $d_1$ | | *12.5* | | | *9.4* | | | *19.1* | | *21.9* | *18.8* | |
| Progression Factor, PF | | *1.000* | | | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.37* | | | *0.11* | | | *0.18* | | *0.45* | *0.15* | |
| Incremental Delay, $d_2$ | | *5.5* | | | *0.2* | | | *3.2* | | *30.1* | *1.5* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *18.0* | | | *9.7* | | | *22.3* | | *51.9* | *20.3* | |
| Lane Group LOS | | *B* | | | *A* | | | *C* | | *D* | *C* | |
| Approach Delay | *18.0* | | | *9.7* | | | *22.3* | | | *38.4* | | |
| Approach LOS | *B* | | | *A* | | | *C* | | | *D* | | |
| Intersection Delay | *20.5* | | | $X_C$ = *0.87* | | | Intersection LOS | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Argonne /Rt 22 ramps/US 6* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/29/07* | Jurisdiction | *Town of Southeast, NY* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

## Volume and Timing Input

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *0* | *1* | *1* | *0* | *0* | *2* | *0* | *0* | *2* | *0* |
| Lane Group | | *LTR* | | *L* | *TR* | | | *LTR* | | *DefL* | *TR* | |
| Volume, V (vph) | *5* | *59* | *252* | *186* | *5* | *161* | *13* | *579* | *301* | *165* | *451* | *20* |
| % Heavy Vehicles, %HV | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| Peak-Hour Factor, PHF | *0.90* | *0.90* | *0.90* | *0.84* | *0.84* | *0.84* | *0.86* | *0.86* | *0.86* | *0.91* | *0.91* | *0.91* |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | | *2.0* | | *2.0* | *2.0* | |
| Arrival Type, AT | | *3* | | *3* | *3* | | | *3* | | *3* | *3* | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | | *3.0* | | *3.0* | *3.0* | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* |
| Lane Width | | *15.0* | | *9.0* | *9.0* | | | *12.0* | | *12.0* | *12.0* | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *-6* | *N* | *N* | *-4* | *N* | *N* | *4* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | | *0* | | *0* | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | NS Perm | SB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *20.0* | G = | G = | G = | G = *23.0* | G = *2.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *60.0* | | |

## Lane Group Capacity, Control Delay, and LOS Determination

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *352* | | *221* | *198* | | | *1038* | | *181* | *518* | |
| Lane Group Capacity, c | | *613* | | *261* | *497* | | | *1257* | | *415* | *916* | |
| v/c Ratio, X | | *0.57* | | *0.85* | *0.40* | | | *0.83* | | *0.44* | *0.57* | |
| Total Green Ratio, g/C | | *0.33* | | *0.33* | *0.33* | | | *0.38* | | *0.55* | *0.50* | |
| Uniform Delay, $d_1$ | | *16.5* | | *18.6* | *15.4* | | | *16.7* | | *16.9* | *10.5* | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | | *1.000* | | *1.000* | *1.000* | |
| Delay Calibration, k | | *0.17* | | *0.38* | *0.11* | | | *0.36* | | *0.11* | *0.16* | |
| Incremental Delay, $d_2$ | | *1.3* | | *22.0* | *0.5* | | | *4.7* | | *0.7* | *0.8* | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | | *0.0* | | *0.0* | *0.0* | |
| Control Delay | | *17.8* | | *40.6* | *15.9* | | | *21.4* | | *17.6* | *11.3* | |
| Lane Group LOS | | *B* | | *D* | *B* | | | *C* | | *B* | *B* | |
| Approach Delay | *17.8* | | | *28.9* | | | *21.4* | | | *12.9* | | |
| Approach LOS | *B* | | | *C* | | | *C* | | | *B* | | |
| Intersection Delay | *19.8* | | | $X_C$ = *1.26* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *WFB + JAG* | Intersection | *Rt 6 (East Main) & 202/22* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/30/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline Retail Center* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | | | *1* | *1* | | | | *1* | | *1* |
| Lane Group | | *LT* | | | *T* | *R* | | | | *L* | | *R* |
| Volume, V (vph) | *49* | *212* | | | *165* | *495* | | | | *520* | | *38* |
| % Heavy Vehicles, %HV | *5* | *5* | | | *1* | *1* | | | | *2* | | *2* |
| Peak-Hour Factor, PHF | *0.91* | *0.91* | | | *0.98* | *0.98* | | | | *0.95* | | *0.95* |
| Pretimed (P) or Actuated (A) | *A* | *A* | | | *A* | *A* | | | | *A* | | *A* |
| Start-up Lost Time, $l_1$ | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Extension of Effective Green, e | | *2.0* | | | *2.0* | *2.0* | | | | *2.0* | | *2.0* |
| Arrival Type, AT | | *3* | | | *3* | *3* | | | | *3* | | *3* |
| Unit Extension, UE | | *3.0* | | | *3.0* | *3.0* | | | | *3.0* | | *3.0* |
| Filtering/Metering, I | | *1.000* | | | *1.000* | *1.000* | | | | *1.000* | | *1.000* |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Ped / Bike / RTOR Volumes | *0* | *0* | | *0* | *0* | *0* | | | | *0* | *0* | *0* |
| Lane Width | | *13.0* | | | *11.0* | *11.0* | | | | *12.0* | | *11.0* |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | | | | *N* | *0* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | | *0* | *0* | | | | *0* | | *0* |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | | | | *3.2* | | |

| Phasing | EW Perm | 02 | 03 | 04 | SB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *39.0* | G = | G = | G = | G = *36.0* | G = | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = | Y = | Y = |

Duration of Analysis, T = *0.25* | Cycle Length, C = *85.0*

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *287* | | | *168* | *505* | | | | *547* | | *40* |
| Lane Group Capacity, c | | *786* | | | *834* | *1546* | | | | *750* | | *648* |
| v/c Ratio, X | | *0.37* | | | *0.20* | *0.33* | | | | *0.73* | | *0.06* |
| Total Green Ratio, g/C | | *0.46* | | | *0.46* | *1.00* | | | | *0.42* | | *0.42* |
| Uniform Delay, $d_1$ | | *15.0* | | | *13.7* | *0.0* | | | | *20.4* | | *14.5* |
| Progression Factor, PF | | *1.000* | | | *1.000* | *0.950* | | | | *1.000* | | *1.000* |
| Delay Calibration, k | | *0.11* | | | *0.11* | *0.11* | | | | *0.29* | | *0.11* |
| Incremental Delay, $d_2$ | | *0.3* | | | *0.1* | *0.1* | | | | *3.6* | | *0.0* |
| Initial Queue Delay, $d_3$ | | *0.0* | | | *0.0* | *0.0* | | | | *0.0* | | *0.0* |
| Control Delay | | *15.2* | | | *13.8* | *0.1* | | | | *24.1* | | *14.5* |
| Lane Group LOS | | *B* | | | *B* | *A* | | | | *C* | | *B* |
| Approach Delay | *15.2* | | | *3.5* | | | | | | *23.4* | | |
| Approach LOS | *B* | | | *A* | | | | | | *C* | | |
| Intersection Delay | *13.3* | | | $X_C$ = *0.54* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *Saw Mill Rd / I-84 EB ramps* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/28/2007* | Jurisdiction | *Danbury, CT* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | *0* | *1* | *1* | | | | | *1* | *1* | *0* | *2* | |
| Lane Group | | *LT* | *R* | | | | | *T* | *R* | | *LT* | |
| Volume, V (vph) | *124* | *0* | *240* | | | | | *286* | *225* | *153* | *305* | |
| % Heavy Vehicles, %HV | *0* | *0* | *0* | | | | | *2* | *2* | *0* | *0* | |
| Peak-Hour Factor, PHF | *0.84* | *0.84* | *0.84* | | | | | *0.86* | *0.86* | *0.92* | *0.92* | |
| Pretimed (P) or Actuated (A) | *A* | *A* | *A* | | | | | *A* | *A* | *A* | *A* | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | | | | *2.0* | *2.0* | | *2.0* | |
| Arrival Type, AT | | *3* | *3* | | | | | *3* | *3* | | *5* | |
| Unit Extension, UE | | *3.0* | *3.0* | | | | | *3.0* | *3.0* | | *3.0* | |
| Filtering/Metering, I | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *1.000* | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | | | | *0* | *0* | *0* | *0* | *0* | |
| Lane Width | | *12.0* | *12.0* | | | | | *11.0* | *11.0* | | *11.0* | |
| Parking / Grade / Parking | *N* | *3* | *N* | | | | *N* | *8* | *N* | *N* | *-5* | *N* |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | | | | *0* | *0* | | *0* | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | | | | *3.2* | | | *3.2* | | |

| Phasing | EB Only | 02 | 03 | 04 | SB Only | NB Only | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *10.0* | G = | G = | G = | G = *34.0* | G = *16.0* | G = | G = |
| | Y = *5* | Y = | Y = | Y = | Y = *5* | Y = *5* | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *148* | *286* | | | | | *333* | *262* | | *498* | |
| Lane Group Capacity, c | | *238* | *658* | | | | | *369* | *313* | | *1598* | |
| v/c Ratio, X | | *0.62* | *0.43* | | | | | *0.90* | *0.84* | | *0.31* | |
| Total Green Ratio, g/C | | *0.13* | *0.41* | | | | | *0.21* | *0.21* | | *0.45* | |
| Uniform Delay, $d_1$ | | *30.7* | *15.7* | | | | | *28.7* | *28.3* | | *13.1* | |
| Progression Factor, PF | | *1.000* | *1.000* | | | | | *1.000* | *1.000* | | *0.447* | |
| Delay Calibration, k | | *0.21* | *0.11* | | | | | *0.42* | *0.37* | | *0.11* | |
| Incremental Delay, $d_2$ | | *5.0* | *0.5* | | | | | *24.5* | *17.7* | | *0.1* | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | | | | *0.0* | *0.0* | | *0.0* | |
| Control Delay | | *35.7* | *16.2* | | | | | *53.3* | *46.0* | | *5.9* | |
| Lane Group LOS | | *D* | *B* | | | | | *D* | *D* | | *A* | |
| Approach Delay | *22.8* | | | | | | *50.1* | | | *5.9* | | |
| Approach LOS | *C* | | | | | | *D* | | | *A* | | |
| Intersection Delay | *27.9* | | | $X_C$ = *0.52* | | | Intersection LOS | | | *C* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/29/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6/Dingle Ridge Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202 (Danbury Rd)* | North/South Street: *Dingle Ridge Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *499* | *41* | *38* | *532* | *0* |
| Peak-Hour Factor, PHF | *0.84* | *0.84* | *0.84* | *0.89* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *594* | *48* | *42* | *597* | *0* |
| Percent Heavy Vehicles | *1* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | | *TR* | *LT* | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *38* | *0* | *34* | *0* | *0* | *1* |
| Peak-Hour Factor, PHF | *0.88* | *0.88* | *0.88* | *0.25* | *0.25* | *0.25* |
| Hourly Flow Rate, HFR (veh/h) | *43* | *0* | *38* | *0* | *0* | *4* |
| Percent Heavy Vehicles | *1* | *1* | *1* | *0* | *0* | *0* |
| Percent Grade (%) | | *2* | | | *2* | |
| Flared Approach | | *Y* | | | *N* | |
| Storage | | *1* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *LTR* | | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | | *LTR* | | | *LTR* | |
| v (veh/h) | *0* | *42* | | *81* | | | *4* | |
| C (m) (veh/h) | *983* | *945* | | *358* | | | *704* | |
| v/c | *0.00* | *0.04* | | *0.23* | | | *0.01* | |
| 95% queue length | *0.00* | *0.14* | | *0.86* | | | *0.02* | |
| Control Delay (s/veh) | *8.7* | *9.0* | | *20.6* | | | *10.1* | |
| LOS | *A* | *A* | | *C* | | | *B* | |
| Approach Delay (s/veh) | -- | -- | *20.6* | | | *10.1* | | |
| Approach LOS | -- | -- | *C* | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/29/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Joe's Hill Road* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Joe's Hill Road*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *18* | *526* | | | *549* | *19* |
| Peak-Hour Factor, PHF | *0.83* | *0.83* | *1.00* | *1.00* | *0.87* | *0.87* |
| Hourly Flow Rate, HFR (veh/h) | *21* | *633* | *0* | *0* | *631* | *21* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | *LT* | *T* | | | *T* | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *11* | | *8* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.65* | *1.00* | *0.65* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *16* | *0* | *12* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *2* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | | | | | | *LR* | |
| v (veh/h) | *21* | | | | | | *28* | |
| C (m) (veh/h) | *937* | | | | | | *329* | |
| v/c | *0.02* | | | | | | *0.09* | |
| 95% queue length | *0.07* | | | | | | *0.28* | |
| Control Delay (s/veh) | *8.9* | | | | | | *17.0* | |
| LOS | *A* | | | | | | *C* | |
| Approach Delay (s/veh) | -- | -- | | | | | *17.0* | |
| Approach LOS | -- | -- | | | | | *C* | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/29/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Rte 6/NYS 121* |
| Jurisdiction | *Town of Southeast, NY* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *NYS Rte 121 Peach Lake*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *672* | *194* | *127* | *596* | |
| Peak-Hour Factor, PHF | *1.00* | *0.80* | *0.80* | *0.90* | *0.90* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *839* | *242* | *141* | *662* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *1* | | | *0* |
| Lanes | *0* | *2* | *1* | *0* | *2* | *0* |
| Configuration | | *T* | *R* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *179* | | *104* | | | |
| Peak-Hour Factor, PHF | *0.94* | *1.00* | *0.94* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *190* | *0* | *110* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *2* | *0* | *2* | *0* | *0* | *0* |
| Percent Grade (%) | *-4* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *0* | *1* | *0* | *0* | *0* |
| Configuration | *L* | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | *L* | | *R* | | | |
| v (veh/h) | | *141* | *190* | | *110* | | | |
| C (m) (veh/h) | | *798* | *100* | | *582* | | | |
| v/c | | *0.18* | *1.90* | | *0.19* | | | |
| 95% queue length | | *0.64* | *15.77* | | *0.69* | | | |
| Control Delay (s/veh) | | *10.5* | *511.4* | | *12.6* | | | |
| LOS | | *B* | *F* | | *B* | | | |
| Approach Delay (s/veh) | -- | -- | *328.5* | | | | | |
| Approach LOS | -- | -- | *F* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/29/07* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 121/ I-84 off-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 off-ramp* | North/South Street: *Peach Lake Rd (NYS Rt 121)*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *143* | | | *296* | |
| Peak-Hour Factor, PHF | *1.00* | *0.79* | *1.00* | *1.00* | *0.93* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *181* | *0* | *0* | *318* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | *T* | | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *111* | | *136* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.89* | *1.00* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *124* | *0* | *152* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *2* | *0* | *2* |
| Percent Grade (%) | | *0* | | | *-3* | |
| Flared Approach | | *N* | | | *Y* | |
| Storage | | *0* | | | *3* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | *LR* | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | *LR* | | | | |
| v (veh/h) | | | | *276* | | | | |
| C (m) (veh/h) | | | | *1182* | | | | |
| v/c | | | | *0.23* | | | | |
| 95% queue length | | | | *0.91* | | | | |
| Control Delay (s/veh) | | | | *11.8* | | | | |
| LOS | | | | *B* | | | | |
| Approach Delay (s/veh) | -- | -- | *11.8* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/29/07* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Rt 121/I-84 on-ramp* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *I-84 on-ramp* | North/South Street: *Rt. 121 Peach Lake*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *143* | *138* | *141* | *254* | |
| Peak-Hour Factor, PHF | *1.00* | *0.83* | *0.83* | *0.94* | *0.94* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *172* | *166* | *150* | *270* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *0* | *0* | *1* | *0* |
| Configuration | | | *TR* | *LT* | | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound | | | Eastbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | | | | | |
| v (veh/h) | | *150* | | | | | | |
| C (m) (veh/h) | | *1227* | | | | | | |
| v/c | | *0.12* | | | | | | |
| 95% queue length | | *0.42* | | | | | | |
| Control Delay (s/veh) | | *8.3* | | | | | | |
| LOS | | *A* | | | | | | |
| Approach Delay (s/veh) | -- | -- | | | | | | |
| Approach LOS | -- | -- | | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *Route 6 & Sodom* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline Retail Center*

| | |
|---|---|
| East/West Street: *US Route 6/202/22* | North/South Street: *Sodom Road/Driveway* |
| Intersection Orientation: *East-West* | Study Period (hrs): *0.25* |

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *0* | *446* | *29* | *8* | *641* | *54* |
| Peak-Hour Factor, PHF | *0.92* | *0.92* | *0.92* | *0.89* | *0.89* | *0.89* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *484* | *31* | *8* | *720* | *60* |
| Percent Heavy Vehicles | *2* | -- | -- | *1* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *1* | *1* |
| Configuration | *LT* | | *TR* | *LT* | | *R* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *7* | *0* | *26* | *52* | *0* | *0* |
| Peak-Hour Factor, PHF | *0.80* | *0.80* | *0.80* | *0.78* | *0.78* | *0.78* |
| Hourly Flow Rate, HFR (veh/h) | *8* | *0* | *32* | *66* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *1* | *1* | *0* | *1* | *0* |
| Configuration | *LT* | | *R* | | *LTR* | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *LT* | *LT* | *LT* | | *R* | | *LTR* | |
| v (veh/h) | *0* | *8* | *8* | | *32* | | *66* | |
| C (m) (veh/h) | *833* | *1054* | *127* | | *747* | | *197* | |
| v/c | *0.00* | *0.01* | *0.06* | | *0.04* | | *0.34* | |
| 95% queue length | *0.00* | *0.02* | *0.20* | | *0.13* | | *1.39* | |
| Control Delay (s/veh) | *9.3* | *8.4* | *35.2* | | *10.0* | | *32.2* | |
| LOS | *A* | *A* | *E* | | *B* | | *D* | |
| Approach Delay (s/veh) | -- | -- | *15.1* | | | *32.2* | | |
| Approach LOS | -- | -- | *C* | | | *D* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *WFB + JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/30/2007* |
| Analysis Time Period | *Saturday Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US Route 6 and CR 50* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline Retail Center*

East/West Street: *US Route 6/202/22* | North/South Street: *County Road 50*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *70* | *490* | | | *583* | *6* |
| Peak-Hour Factor, PHF | *0.85* | *0.85* | *1.00* | *1.00* | *0.86* | *0.86* |
| Hourly Flow Rate, HFR (veh/h) | *82* | *576* | *0* | *0* | *677* | *6* |
| Percent Heavy Vehicles | *1* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *1* | *1* | *0* | *0* | *1* | *0* |
| Configuration | *L* | *T* | | | | *TR* |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | | *10* | | *115* |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *1.00* | *0.85* | *1.00* | *0.85* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *0* | *11* | *0* | *135* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *2* | *0* | *2* |
| Percent Grade (%) | | *0* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *1* | *0* | *1* |
| Configuration | | | | *L* | | *R* |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | *L* | | | | | *L* | | *R* |
| v (veh/h) | *82* | | | | | *11* | | *135* |
| C (m) (veh/h) | *915* | | | | | *137* | | *451* |
| v/c | *0.09* | | | | | *0.08* | | *0.30* |
| 95% queue length | *0.29* | | | | | *0.26* | | *1.24* |
| Control Delay (s/veh) | *9.3* | | | | | *33.6* | | *16.4* |
| LOS | *A* | | | | | *D* | | *C* |
| Approach Delay (s/veh) | -- | -- | | | | *17.7* | | |
| Approach LOS | -- | -- | | | | *C* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and East site Access* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/27/07* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Build w/ 5 lane Rt 6* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *2* | | *1* | | *1* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | | *R* | | | |
| Volume, V (vph) | | *211* | *19* | *38* | *1178* | | *48* | | *36* | | | |
| % Heavy Vehicles, %HV | | *5* | *5* | *3* | *3* | | *2* | | *2* | | | |
| Peak-Hour Factor, PHF | | *0.73* | *0.73* | *0.91* | *0.91* | | *0.95* | | *0.95* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *11.0* | | *11.0* | *12.0* | | *12.0* | | *12.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-3* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *30.0* | G = *10.0* | G = | G = | G = *15.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *70.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *315* | | *42* | *1295* | | *51* | | *38* | | | |
| Lane Group Capacity, c | | *1410* | | *865* | *2258* | | *385* | | *689* | | | |
| v/c Ratio, X | | *0.22* | | *0.05* | *0.57* | | *0.13* | | *0.06* | | | |
| Total Green Ratio, g/C | | *0.43* | | *0.69* | *0.64* | | *0.21* | | *0.43* | | | |
| Uniform Delay, $d_1$ | | *12.6* | | *3.6* | *7.1* | | *22.2* | | *11.7* | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.17* | | *0.11* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *0.1* | | *0.0* | *0.4* | | *0.2* | | *0.0* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *12.7* | | *3.6* | *7.4* | | *22.4* | | *11.7* | | | |
| Lane Group LOS | | *B* | | *A* | *A* | | *C* | | *B* | | | |
| Approach Delay | *12.7* | | | *7.3* | | | *17.8* | | | | | |
| Approach LOS | *B* | | | *A* | | | *B* | | | | | |
| Intersection Delay | *8.8* | | | $X_C$ = *0.46* | | | Intersection LOS | | | *A* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/18/07* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6 & 202/ western access* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

| | |
|---|---|
| East/West Street: *US Route 6 & 202* | North/South Street: *Western Access right in/out* |
| Intersection Orientation: *East-West* | Study Period (hrs): *0.25* |

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *303* | *27* | *9* | *1217* | |
| Peak-Hour Factor, PHF | *1.00* | *0.73* | *0.73* | *0.92* | *0.92* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *415* | *36* | *9* | *1322* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | | *T* | *TR* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *3* | | *2* | | | |
| Peak-Hour Factor, PHF | *0.95* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *3* | *0* | *2* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | | *-3* | | | *0* | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | *LR* | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | *LR* | | | | |
| v (veh/h) | | *9* | | *5* | | | | |
| C (m) (veh/h) | | *1120* | | *290* | | | | |
| v/c | | *0.01* | | *0.02* | | | | |
| 95% queue length | | *0.02* | | *0.05* | | | | |
| Control Delay (s/veh) | | *8.2* | | *17.6* | | | | |
| LOS | | *A* | | *C* | | | | |
| Approach Delay (s/veh) | -- | -- | *17.6* | | | | | |
| Approach LOS | -- | -- | *C* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/07* |
| Analysis Time Period | *A.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6 & 202/ center access* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Center Access right in/out*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *224* | *81* | | *1226* | |
| Peak-Hour Factor, PHF | *1.00* | *0.73* | *0.73* | *1.00* | *0.92* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *306* | *110* | *0* | *1332* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | | *T* | *TR* | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | *6* | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *6* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *-3* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *1* | *0* | *0* | *0* |
| Configuration | | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | | *R* | | | |
| v (veh/h) | | | | | *6* | | | |
| C (m) (veh/h) | | | | | *804* | | | |
| v/c | | | | | *0.01* | | | |
| 95% queue length | | | | | *0.02* | | | |
| Control Delay (s/veh) | | | | | *9.5* | | | |
| LOS | | | | | *A* | | | |
| Approach Delay (s/veh) | -- | -- | *9.5* | | | | | |
| Approach LOS | -- | -- | *A* | | | | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and East site Access* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/28/07* | Jurisdiction | *Town of Southeast* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Build w/ 5 Lane Rt 6* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *2* | | *1* | | *1* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | | *R* | | | |
| Volume, V (vph) | | *649* | *58* | *143* | *378* | | *293* | | *167* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *1* | *1* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.95* | *0.95* | *0.93* | *0.93* | | *0.95* | | *0.95* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *11.0* | | *11.0* | *12.0* | | *12.0* | | *12.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-3* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *30.0* | G = *10.0* | G = | G = | G = *20.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *75.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *744* | | *154* | *406* | | *308* | | *176* | | | |
| Lane Group Capacity, c | | *1368* | | *617* | *2149* | | *484* | | *757* | | | |
| v/c Ratio, X | | *0.54* | | *0.25* | *0.19* | | *0.64* | | *0.23* | | | |
| Total Green Ratio, g/C | | *0.40* | | *0.64* | *0.60* | | *0.27* | | *0.47* | | | |
| Uniform Delay, $d_1$ | | *17.3* | | *10.3* | *6.8* | | *24.3* | | *12.0* | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.14* | | *0.11* | *0.11* | | *0.22* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *0.5* | | *0.2* | *0.0* | | *2.8* | | *0.2* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *17.7* | | *10.5* | *6.8* | | *27.1* | | *12.1* | | | |
| Lane Group LOS | | *B* | | *B* | *A* | | *C* | | *B* | | | |
| Approach Delay | *17.7* | | | *7.8* | | | *21.6* | | | | | |
| Approach LOS | *B* | | | *A* | | | *C* | | | | | |
| Intersection Delay | *15.7* | | | $X_C$ = *0.55* | | | Intersection LOS | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/28/07* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6 & 202/ western access* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

| | |
|---|---|
| East/West Street: *US Route 6 & 202* | North/South Street: *Western Access right in/out* |
| Intersection Orientation: *East-West* | Study Period (hrs): *0.25* |

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *916* | *5* | *2* | *669* | |
| Peak-Hour Factor, PHF | *1.00* | *0.95* | *0.95* | *0.93* | *0.93* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *964* | *5* | *2* | *719* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | | *T* | *TR* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *22* | | *13* | | | |
| Peak-Hour Factor, PHF | *0.95* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *23* | *0* | *13* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *-3* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | *LR* | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | *LR* | | | | |
| v (veh/h) | | *2* | | *36* | | | | |
| C (m) (veh/h) | | *719* | | *201* | | | | |
| v/c | | *0.00* | | *0.18* | | | | |
| 95% queue length | | *0.01* | | *0.63* | | | | |
| Control Delay (s/veh) | | *10.0* | | *26.8* | | | | |
| LOS | | *B* | | *D* | | | | |
| Approach Delay (s/veh) | -- | -- | *26.8* | | | | | |
| Approach LOS | -- | -- | *D* | | | | | |

# TWO-WAY STOP CONTROL SUMMARY

## General Information

| | |
|---|---|
| Analyst | *JAG* |
| Agency/Co. | *TMA* |
| Date Performed | *10/18/07* |
| Analysis Time Period | *P.M. Peak Hour* |

## Site Information

| | |
|---|---|
| Intersection | *US 6 & 202/ Center access* |
| Jurisdiction | *Town of Southeast* |
| Analysis Year | *Build Condition* |
| | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Center Access right in/out*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *670* | *259* | | *671* | |
| Peak-Hour Factor, PHF | *1.00* | *0.95* | *0.95* | *1.00* | *0.93* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *705* | *272* | *0* | *721* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | | *T* | *TR* | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | *37* | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *38* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *-3* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *1* | *0* | *0* | *0* |
| Configuration | | | *R* | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | | *R* | | | |
| v (veh/h) | | | | | *38* | | | |
| C (m) (veh/h) | | | | | *531* | | | |
| v/c | | | | | *0.07* | | | |
| 95% queue length | | | | | *0.23* | | | |
| Control Delay (s/veh) | | | | | *12.3* | | | |
| LOS | | | | | *B* | | | |
| Approach Delay (s/veh) | -- | -- | *12.3* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 and East site Access* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *11/28/07* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build w/ 5 lane Rt 6* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *0* | *1* | *2* | | *1* | | *1* | | | |
| Lane Group | | *TR* | | *L* | *T* | | *L* | | *R* | | | |
| Volume, V (vph) | | *345* | *88* | *213* | *345* | | *374* | | *199* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *1* | *1* | | *1* | | *1* | | | |
| Peak-Hour Factor, PHF | | *0.84* | *0.84* | *0.89* | *0.89* | | *0.95* | | *0.95* | | | |
| Pretimed (P) or Actuated (A) | | *A* | *A* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | | *2.0* | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | | *3* | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | | *3.0* | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *11.0* | | *11.0* | *12.0* | | *12.0* | | *12.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-3* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | | *0* | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *22.0* | G = *13.0* | G = | G = | G = *20.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *70.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *516* | | *239* | *388* | | *394* | | *209* | | | |
| Lane Group Capacity, c | | *1055* | | *740* | *2047* | | *518* | | *881* | | | |
| v/c Ratio, X | | *0.49* | | *0.32* | *0.19* | | *0.76* | | *0.24* | | | |
| Total Green Ratio, g/C | | *0.31* | | *0.61* | *0.57* | | *0.29* | | *0.54* | | | |
| Uniform Delay, $d_1$ | | *19.4* | | *9.3* | *7.2* | | *22.8* | | *8.4* | | | |
| Progression Factor, PF | | *1.000* | | *1.000* | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.11* | | *0.11* | *0.11* | | *0.31* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *0.4* | | *0.3* | *0.0* | | *6.5* | | *0.1* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | | *0.0* | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *19.8* | | *9.5* | *7.3* | | *29.3* | | *8.5* | | | |
| Lane Group LOS | | *B* | | *A* | *A* | | *C* | | *A* | | | |
| Approach Delay | *19.8* | | | *8.1* | | | *22.1* | | | | | |
| Approach LOS | *B* | | | *A* | | | *C* | | | | | |
| Intersection Delay | *16.4* | | | $X_C$ = *0.63* | | | Intersection LOS | | | *B* | | |

# TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 & 202/ western access* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/18/07* | Analysis Year | *Build Condition* |
| Analysis Time Period | *Saturday Peak Hour* | | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Western Access right in/out*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

## Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *756* | *3* | *1* | *718* | |
| Peak-Hour Factor, PHF | *1.00* | *0.84* | *0.84* | *0.89* | *0.89* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *900* | *3* | *1* | *806* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | | *T* | *TR* | *LT* | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | *3* | | *1* | | | |
| Peak-Hour Factor, PHF | *0.95* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *3* | *0* | *1* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *-3* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *0* | *0* | *0* | *0* |
| Configuration | | *LR* | | | | |

## Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | *LT* | | *LR* | | | | |
| v (veh/h) | | *1* | | *4* | | | | |
| C (m) (veh/h) | | *761* | | *188* | | | | |
| v/c | | *0.00* | | *0.02* | | | | |
| 95% queue length | | *0.00* | | *0.07* | | | | |
| Control Delay (s/veh) | | *9.7* | | *24.6* | | | | |
| LOS | | *A* | | *C* | | | | |
| Approach Delay (s/veh) | -- | -- | *24.6* | | | | | |
| Approach LOS | -- | -- | *C* | | | | | |

## TWO-WAY STOP CONTROL SUMMARY

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US 6 & 202/ Center access* |
| Agency/Co. | *TMA* | Jurisdiction | *Town of Southeast* |
| Date Performed | *10/18/07* | Analysis Year | *Build Condition* |
| Analysis Time Period | *Saturday Peak Hour* | | |

Project Description *Stateline*

East/West Street: *US Route 6 & 202* | North/South Street: *Center Access right in/out*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

### Vehicle Volumes and Adjustments

| **Major Street** | Eastbound | | | Westbound | | |
|---|---|---|---|---|---|---|
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | *387* | *370* | | *719* | |
| Peak-Hour Factor, PHF | *1.00* | *0.84* | *0.84* | *1.00* | *0.89* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *460* | *440* | *0* | *807* | *0* |
| Percent Heavy Vehicles | *0* | -- | -- | *0* | -- | -- |
| Median Type | *Undivided* | | | | | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *2* | *0* | *0* | *2* | *0* |
| Configuration | | *T* | *TR* | | *T* | |
| Upstream Signal | | *0* | | | *0* | |

| **Minor Street** | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
| | L | T | R | L | T | R |
| Volume (veh/h) | | | *46* | | | |
| Peak-Hour Factor, PHF | *1.00* | *1.00* | *0.95* | *1.00* | *1.00* | *1.00* |
| Hourly Flow Rate, HFR (veh/h) | *0* | *0* | *48* | *0* | *0* | *0* |
| Percent Heavy Vehicles | *0* | *0* | *0* | *0* | *0* | *0* |
| Percent Grade (%) | *-3* | | | *0* | | |
| Flared Approach | | *N* | | | *N* | |
| Storage | | *0* | | | *0* | |
| RT Channelized | | | *0* | | | *0* |
| Lanes | *0* | *0* | *1* | *0* | *0* | *0* |
| Configuration | | | *R* | | | |

### Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound | | | Southbound | | |
|---|---|---|---|---|---|---|---|---|
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | | | | | *R* | | | |
| v (veh/h) | | | | | *48* | | | |
| C (m) (veh/h) | | | | | *562* | | | |
| v/c | | | | | *0.09* | | | |
| 95% queue length | | | | | *0.28* | | | |
| Control Delay (s/veh) | | | | | *12.0* | | | |
| LOS | | | | | *B* | | | |
| Approach Delay (s/veh) | -- | -- | *12.0* | | | | | |
| Approach LOS | -- | -- | *B* | | | | | |

# *HCS+*™ DETAILED REPORT

| General Information | | Site Information | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US Rt 6 / NYS Rt 121* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/31/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Improved without diversion* |
| | | Project ID | *Stateline* |

## Volume and Timing Input

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *1* | *0* | *2* | | *1* | | *1* | | | |
| Lane Group | | *T* | *R* | | *LT* | | *L* | | *R* | | | |
| Volume, V (vph) | | *309* | *283* | *250* | *994* | | *327* | | *34* | | | |
| % Heavy Vehicles, %HV | | *5* | *5* | *5* | *5* | | *4* | | *4* | | | |
| Peak-Hour Factor, PHF | | *0.69* | *0.69* | *0.92* | *0.92* | | *0.86* | | *0.86* | | | |
| Pretimed (P) or Actuated (A) | | *P* | *P* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | *3* | | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | *3.0* | | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *12.0* | *12.0* | | *12.0* | | *14.0* | | *14.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-4* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *25.0* | G = *10.0* | G = | G = | G = *15.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | Cycle Length, C = *65.0* | | | |

## Lane Group Capacity, Control Delay, and LOS Determination

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *448* | *410* | | *1352* | | *380* | | *40* | | | |
| Lane Group Capacity, c | | *1325* | *1065* | | *1772* | | *436* | | *780* | | | |
| v/c Ratio, X | | *0.34* | *0.38* | | *0.76* | | *0.87* | | *0.05* | | | |
| Total Green Ratio, g/C | | *0.38* | *0.69* | | *0.62* | | *0.23* | | *0.46* | | | |
| Uniform Delay, $d_1$ | | *14.1* | *4.2* | | *9.1* | | *24.1* | | *9.7* | | | |
| Progression Factor, PF | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.50* | *0.11* | | *0.32* | | *0.40* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *0.7* | *0.2* | | *2.0* | | *17.3* | | *0.0* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *14.8* | *4.4* | | *11.1* | | *41.3* | | *9.7* | | | |
| Lane Group LOS | | *B* | *A* | | *B* | | *D* | | *A* | | | |
| Approach Delay | *9.9* | | | *11.1* | | | *38.3* | | | | | |
| Approach LOS | *A* | | | *B* | | | *D* | | | | | |
| Intersection Delay | *15.0* | | | $X_C$ = *0.96* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US Rt 6 / NYS Rt 121* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/31/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *P.M. Peak Hour* | Analysis Year | *Improved without diversion* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *1* | *0* | *2* | | *1* | | *1* | | | |
| Lane Group | | *T* | *R* | | *LT* | | *L* | | *R* | | | |
| Volume, V (vph) | | *753* | *197* | *113* | *504* | | *256* | | *118* | | | |
| % Heavy Vehicles, %HV | | *4* | *4* | *3* | *3* | | *2* | | *2* | | | |
| Peak-Hour Factor, PHF | | *0.89* | *0.89* | *0.97* | *0.97* | | *0.95* | | *0.95* | | | |
| Pretimed (P) or Actuated (A) | | *P* | *P* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | *3* | | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | *3.0* | | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *12.0* | *12.0* | | *12.0* | | *14.0* | | *14.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-4* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *25.0* | G = *10.0* | G = | G = | G = *15.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | Cycle Length, C = *65.0* | | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *846* | *221* | | *636* | | *269* | | *124* | | | |
| Lane Group Capacity, c | | *1338* | *1075* | | *1615* | | *444* | | *795* | | | |
| v/c Ratio, X | | *0.63* | *0.21* | | *0.39* | | *0.61* | | *0.16* | | | |
| Total Green Ratio, g/C | | *0.38* | *0.69* | | *0.62* | | *0.23* | | *0.46* | | | |
| Uniform Delay, $d_1$ | | *16.3* | *3.6* | | *6.3* | | *22.4* | | *10.2* | | | |
| Progression Factor, PF | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.50* | *0.11* | | *0.11* | | *0.19* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *2.3* | *0.1* | | *0.2* | | *2.4* | | *0.1* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *18.5* | *3.7* | | *6.5* | | *24.7* | | *10.2* | | | |
| Lane Group LOS | | *B* | *A* | | *A* | | *C* | | *B* | | | |
| Approach Delay | *15.5* | | | *6.5* | | | *20.2* | | | | | |
| Approach LOS | *B* | | | *A* | | | *C* | | | | | |
| Intersection Delay | *13.6* | | | $X_C$ = *0.74* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US Rt 6 / NYS Rt 121* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/31/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *Saturday Peak Hour* | Analysis Year | *Build Condition* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *1* | *0* | *2* | | *1* | | *1* | | | |
| Lane Group | | *T* | *R* | | *LT* | | *L* | | *R* | | | |
| Volume, V (vph) | | *672* | *194* | *127* | *596* | | *179* | | *104* | | | |
| % Heavy Vehicles, %HV | | *1* | *1* | *1* | *1* | | *2* | | *2* | | | |
| Peak-Hour Factor, PHF | | *0.84* | *0.84* | *0.90* | *0.90* | | *0.94* | | *0.94* | | | |
| Pretimed (P) or Actuated (A) | | *P* | *P* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | *3* | | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | *3.0* | | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *12.0* | *12.0* | | *12.0* | | *14.0* | | *14.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-4* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *25.0* | G = *10.0* | G = | G = | G = *15.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | | Cycle Length, C = *65.0* | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *800* | *231* | | *803* | | *190* | | *111* | | | |
| Lane Group Capacity, c | | *1378* | *1107* | | *1653* | | *444* | | *795* | | | |
| v/c Ratio, X | | *0.58* | *0.21* | | *0.49* | | *0.43* | | *0.14* | | | |
| Total Green Ratio, g/C | | *0.38* | *0.69* | | *0.62* | | *0.23* | | *0.46* | | | |
| Uniform Delay, $d_1$ | | *15.8* | *3.6* | | *6.9* | | *21.3* | | *10.1* | | | |
| Progression Factor, PF | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.50* | *0.11* | | *0.11* | | *0.11* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *1.8* | *0.1* | | *0.2* | | *0.7* | | *0.1* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *17.6* | *3.7* | | *7.1* | | *22.0* | | *10.2* | | | |
| Lane Group LOS | | *B* | *A* | | *A* | | *C* | | *B* | | | |
| Approach Delay | *14.5* | | | *7.1* | | | *17.6* | | | | | |
| Approach LOS | *B* | | | *A* | | | *B* | | | | | |
| Intersection Delay | *12.2* | | | $X_C$ = *0.82* | | | Intersection LOS | | | *B* | | |

# *HCS+*™ DETAILED REPORT

| ***General Information*** | | ***Site Information*** | |
|---|---|---|---|
| Analyst | *JAG* | Intersection | *US Rt 6 / NYS Rt 121* |
| Agency or Co. | *TMA* | Area Type | *All other areas* |
| Date Performed | *10/31/2007* | Jurisdiction | *Town of Southeast* |
| Time Period | *A.M. Peak Hour* | Analysis Year | *Improved Sensitivity* |
| | | Project ID | *Stateline* |

***Volume and Timing Input***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Number of Lanes, $N_1$ | | *2* | *1* | *0* | *2* | | *1* | | *1* | | | |
| Lane Group | | *T* | *R* | | *LT* | | *L* | | *R* | | | |
| Volume, V (vph) | | *309* | *283* | *250* | *694* | | *627* | | *34* | | | |
| % Heavy Vehicles, %HV | | *5* | *5* | *5* | *5* | | *4* | | *4* | | | |
| Peak-Hour Factor, PHF | | *0.69* | *0.69* | *0.92* | *0.92* | | *0.86* | | *0.86* | | | |
| Pretimed (P) or Actuated (A) | | *P* | *P* | *A* | *A* | | *A* | | *A* | | | |
| Start-up Lost Time, $l_1$ | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Extension of Effective Green, e | | *2.0* | *2.0* | | *2.0* | | *2.0* | | *2.0* | | | |
| Arrival Type, AT | | *3* | *3* | | *3* | | *3* | | *3* | | | |
| Unit Extension, UE | | *3.0* | *3.0* | | *3.0* | | *3.0* | | *3.0* | | | |
| Filtering/Metering, I | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Initial Unmet Demand, $Q_b$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Ped / Bike / RTOR Volumes | *0* | *0* | *0* | *0* | *0* | | *0* | *0* | *0* | | | |
| Lane Width | | *12.0* | *12.0* | | *12.0* | | *14.0* | | *14.0* | | | |
| Parking / Grade / Parking | *N* | *0* | *N* | *N* | *0* | *N* | *N* | *-4* | *N* | | | |
| Parking Maneuvers, $N_m$ | | | | | | | | | | | | |
| Buses Stopping, $N_B$ | | *0* | *0* | | *0* | | *0* | | *0* | | | |
| Min. Time for Pedestrians, $G_p$ | *3.2* | | | *3.2* | | | *3.2* | | | | | |

| Phasing | EW Perm | WB Only | 03 | 04 | NB Only | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|---|
| Timing | G = *10.0* | G = *10.0* | G = | G = | G = *25.0* | G = | G = | G = |
| | Y = *5* | Y = *5* | Y = | Y = | Y = *5* | Y = | Y = | Y = |
| Duration of Analysis, T = *0.25* | | | | | Cycle Length, C = *60.0* | | | |

***Lane Group Capacity, Control Delay, and LOS Determination***

| | EB | | | WB | | | NB | | | SB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT |
| Adjusted Flow Rate, v | | *448* | *410* | | *1026* | | *729* | | *40* | | | |
| Lane Group Capacity, c | | *574* | *1025* | | *1234* | | *787* | | *1127* | | | |
| v/c Ratio, X | | *0.78* | *0.40* | | *0.83* | | *0.93* | | *0.04* | | | |
| Total Green Ratio, g/C | | *0.17* | *0.67* | | *0.42* | | *0.42* | | *0.67* | | | |
| Uniform Delay, $d_1$ | | *23.9* | *4.5* | | *15.6* | | *16.6* | | *3.4* | | | |
| Progression Factor, PF | | *1.000* | *1.000* | | *1.000* | | *1.000* | | *1.000* | | | |
| Delay Calibration, k | | *0.50* | *0.11* | | *0.37* | | *0.44* | | *0.11* | | | |
| Incremental Delay, $d_2$ | | *10.1* | *0.3* | | *5.0* | | *16.9* | | *0.0* | | | |
| Initial Queue Delay, $d_3$ | | *0.0* | *0.0* | | *0.0* | | *0.0* | | *0.0* | | | |
| Control Delay | | *34.1* | *4.8* | | *20.6* | | *33.5* | | *3.4* | | | |
| Lane Group LOS | | *C* | *A* | | *C* | | *C* | | *A* | | | |
| Approach Delay | *20.1* | | | *20.6* | | | *31.9* | | | | | |
| Approach LOS | *C* | | | *C* | | | *C* | | | | | |
| Intersection Delay | *23.7* | | | $X_C$ = *0.96* | | | Intersection LOS | | | *C* | | |