Existing Conditions Report
West Main Street Study
Waterbury, Connecticut

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1 Introduction

The West Main Street corridor is a vital link within the City of Waterbury, connecting the west side of the City and Route 8 with Downtown Waterbury and the "Pulse Point" which serves as the transit hub of the City. The corridor services significant passenger vehicle and truck traffic and it serves as a spine of the CTtransit Waterbury Division bus network, providing continuous bus service to the west side of the City as frequently as every 3 minutes during peak periods. While focused on serving vehicular traffic, the corridor is lacking in bicycle, pedestrian, and transit accommodations with numerous unsafe conditions noted along the corridor. Many portions of the West Main Street corridor within the study limits contain travel lanes that are wider than they need to be for vehicular traffic, or contain more travel lanes than are needed to accommodate the volume of peak hour traffic present on the roadway. In fact, the City's most recent Plan of Conservation and Development Study cites West Main Street as an example of a street with excessive pavement width and notes that traffic volumes indicate West Main Street does not warrant a seven-lane roadway.

Through a multitude of past and ongoing projects and studies in the area, the City is attempting to revitalize and redevelop Downtown Waterbury. One notable example is the TIGER project that recently extended Jackson Street from Freight Street north to West Main Street, providing improved connectivity and overall circulation. The West Main Street Study seeks to build upon the momentum gained from these other Downtown projects and promote a more multi-modal oriented corridor while at the same time not compromising vehicular throughput.

This report will serve to summarize the existing transportation conditions observed and analyzed along the West Main Street corridor between Route 8 to the west and the Waterbury Green to the east. Roadway operations were analyzed with the goal of determining areas not only where congestion exists, but also where excess lane capacity and width could be eliminated to make more room for pedestrian, bicycle and transit accommodations. A full inventory of the existing roadway network was completed, including roadway lane configurations, pedestrian sidewalks, crossings, and amenities, bicycle accommodations, and transit facilities. The roadway network was then analyzed to determine areas with vehicle delays, queueing, and higher crash locations. Pedestrian, bicycle and transit facilities were assessed to determine deficiencies, gaps in the transportation network, and safety concerns. Figure 1 on the following page outlines the study area.

2 Existing Conditions

2.1 Roadway Inventory

The West Main Street study area spans 0.8 miles from the Riverside Street and Watertown Avenue intersection in the west to the Green in the east. The corridor is comprised of eight signalized intersections and five unsignalized intersections.

A site visit was conducted to gather observations on vehicular and pedestrian traffic. Section 2.2 provides a breakdown of the corridor inventory by intersection.

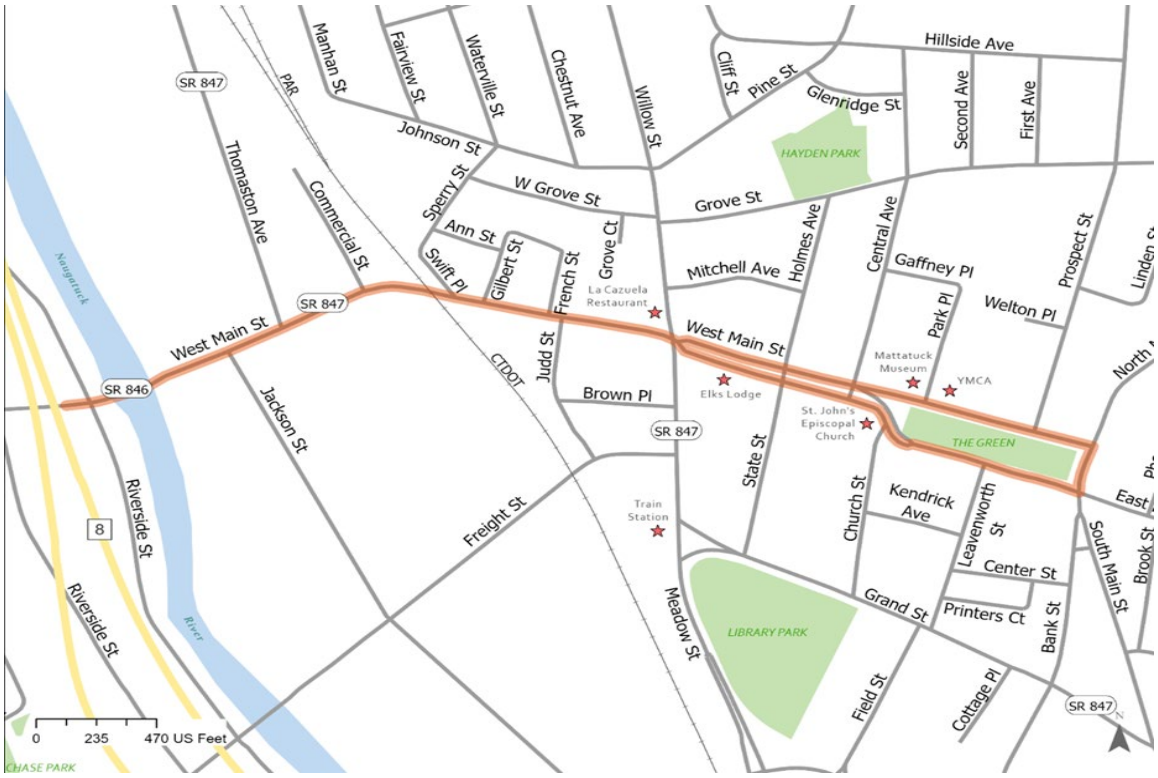


Figure 1: West Main Street Corridor Area of Study

2.2 Study Area Intersections

The following study area intersections were reviewed:

- West Main Street at Riverside Street and Watertown Avenue
- West Main Street at Jackson Street
- West Main Street at Thomaston Avenue and Walgreens Driveway
- West Main Street at Sperry Street
- West Main Street at Willow Street and Meadow Street
- West Main Street at Holmes Avenue and State Street
- West Main Street at Central Avenue
- West Main Street at Church Street and West Main Street Confluence
- West Main Street at Leavenworth Street
- West Main Street at Bank Street/South Main Street, East Main Street, and North Main Street
- West Main Street at North Main Street
- West Main Street at Prospect Street
- West Main Street at Park Place

West Main Street at Riverside Street and Watertown Avenue

The intersection of West Main Street and Riverside Street is a four-legged signalized intersection with West Main Street providing the eastbound and westbound approaches, Riverside Street providing the northbound approach and Watertown Avenue providing the southbound approach. West Main Street's eastern leg provides two travel lanes in each direction and is approximately 44 feet wide. The western leg of the intersection provides three travel lanes in each direction, separated by a raised median, and is approximately 110 feet wide. The lane arrangements on the western leg under the Route 8 overpass are poorly defined.

Sidewalks are provided along both sides of West Main Street in the vicinity of the intersection. Sidewalks are approximately 7.5 feet wide east of the intersection and five feet wide west of the intersection. Crosswalks span the north and east legs of the intersection and have blended transition ramps with detectable warning strips.

The existing traffic signal control includes four vehicular phases and no pedestrian phases. Actuated pedestrian push buttons are located at the two eastern corners of the intersections, aligned with the existing crosswalks; however the southern push button is inoperable and pedestrian signal heads are not provided at either location.

West Main Street at Jackson Street

As a part of the City of Waterbury's TIGER project, Jackson Street was connected from Freight Street north to West Main Street to provide improved connectivity. This project is part of the city's effort to revitalize and redevelop the area. Jackson Street now intersects with West Main Street at an unsignalized 3-way "T" intersection approximately midway between the Riverside Avenue and Thomaston Avenue intersections. The Jackson Street leg provides one travel lane in each direction while West Main Street provides two travel lanes in each direction through the intersection. Left turns from Jackson Street onto West Main Street are prohibited by signage but this movement was observed to be frequently violated. Left turns from West Main Street onto Jackson Street are allowed but can cause significant queueing at times.

Sidewalks are provided along both sides of West Main Street and along the west side of Jackson Street. A crosswalk and pedestrian ramps are provided for crossing the Jackson Street approach. Shared lane markings or "sharrows" for bicyclists are also painted along Jackson Street.

West Main Street at Thomaston Avenue & Walgreens Driveway

The intersection of West Main Street at Thomaston Avenue and the Walgreens Driveway is a four-legged signalized intersection with West Main Street providing the eastbound and westbound approaches, Thomaston Avenue providing the southbound approach, and the Walgreens driveway providing the northbound approach. West Main Street's eastern leg provides three westbound and two eastbound travel lanes and is approximately 55 feet wide. The western leg of the intersection provides two travel lanes in each direction and is approximately 53.5 feet wide.

Sidewalks are provided along both sides of West Main Street in the vicinity of the intersection. Sidewalks range from approximately four to 4.5 feet wide east of the intersection. West of the intersection, the northern sidewalk is approximately 7.5 feet wide, and the southern sidewalk is approximately 5.5 feet wide. Crosswalks span the north and west legs of the intersection and have blended transition ramps with detectable warning strips.

The existing traffic signal control includes four vehicular phases and an exclusive pedestrian phase. The northeast, northwest, and southwest corners have actuated pedestrian push buttons with corresponding pedestrian signal heads. The northern two pedestrian heads are pole mounted while the southwestern pedestrian head is pedestal mounted.

West Main Street at Sperry Street

The intersection of West Main Street at Sperry Street is a three-way unsignalized intersection with West Main Street providing the eastbound and westbound approaches and Sperry Street providing the southbound approach. West Main Street's eastern leg provides one travel lane and on-street parking in each direction and is approximately 58 feet wide. The western leg provides one travel lane in each direction, no on-street parking, and is approximately 42 feet wide. The eastbound approach to Sperry Street, while striped for one lane, was observed to be used as two lanes by drivers as through vehicles would often bypass a vehicle waiting to turn left into Sperry Street. The northeast corner of the intersection was noted to have excessive pavement width and a very large corner radius.

Sidewalks are provided along West Main Street in the vicinity of the intersection and are approximately 8.5 feet wide. Crosswalks and pedestrian ramps are not provided on any of the legs at this intersection.

Due to the skewed angle of the Sperry Street approach and the presence of the railroad overpass just west of the intersection, intersection sight distances were measured from Sperry Street in accordance with criteria set forth in the 2003 CTDOT *Highway Design Manual*. Intersection sight distance is measured from a point 15 feet from the edge of traveled way at a height of 3.5 feet, the standard height of a driver's eye.

Sight distance of 410 feet is provided looking east (left) from Sperry Street, providing safe egress for passenger cars turning right onto West Main Street. The measured sight distance exceeds the 335-foot sight distance required for passenger cars by American Association of State Highway and Transportation Officials (AASHTO) for 30 mile per hour design speeds but falls short of the sight distances required for single unit trucks (420 feet) and semi-trailers (510 feet). Sight distance of only 85 feet is provided looking west (right), which does not provide sufficient intersection sight distance for any vehicles turning left out of Sperry Street.

The corridor spanning from the Sperry Street intersection to the Willow and Meadow Street intersection provides wide travel lanes and on-street parking for access to the variety of commercial and retail establishments along this section. The wide lanes invite vehicles to operate at faster speeds, creating unsafe conditions for cyclists and pedestrians.

West Main Street at Willow Street & Meadow Street

The intersection of West Main Street at Willow Street and Meadow Street is a four-legged signalized intersection with all approaches being offset and poorly aligned. West Main Street provides the eastbound and westbound approaches, Meadow Street provides the south leg and Willow Street provides the north leg. West Main Street's eastern leg provides three westbound travel lanes and two eastbound travel lanes, with a raised planted median between them, totaling an approximate 72 foot roadway width. The western leg is approximately 54 feet wide and provides two westbound travel lanes merging to one and two eastbound travel lanes approaching the intersection. The short westbound two lane to one lane merge results in confusion for some drivers as they cross the intersection. On-street parking is prohibited on both sides of the roadway in the vicinity of the intersection.

Sidewalks are provided along both sides of West Main Street in the area of the intersection. Sidewalks are greater than or equal to nine feet in width on both sides of the intersection. Crosswalks span across all legs of the intersection, and one spans diagonally through the intersection from the northeast to southwest. Accessible sidewalk ramps with detectable warning panels are provided for all five crossings. The existing traffic signal control includes four vehicular phases and an exclusive pedestrian phase. All corners and crossings provide pedestrian push buttons with pedestrian signal heads, three of which are pedestal mounted and seven pole mounted. Left turns are prohibited on the eastbound and southbound approaches to the intersection although these movements were observed to be frequently violated.

It should be noted that this intersection serves as the demarcation point for State owned and maintained roadways versus City owned. West Main Street west of this intersection to Route 8 as well as Meadow Street south of this intersection are State owned and maintained roadways. From its intersection with Watertown Avenue and Riverside Street to Thomaston Avenue, West Main Street is designated as State Route 846. From Thomaston Avenue to its intersection with Willow Street and Measow Street, West Main Street is designated as State Route 847. Willow Street to the north and West Main Street from this intersection east to the Green are City owned and maintained roadways.

West Main Street at Holmes Avenue & State Street

The intersection of West Main Street at Holmes Avenue and State Street is a four-legged signalized intersection with West Main Street providing the eastbound and westbound approaches, Holmes Avenue providing the north leg and State Street providing the south leg. West Main Street's eastern leg provides three lanes in each direction, separated by a median that is raised for approximately 15 feet at the intersection and striped along the approaches, creating an excessively wide roadway of approximately 92 feet. The western leg provides the same geometry as the eastern leg and is approximately 87 feet wide. An eastbound dedicated left turn lane is provided for vehicles turning onto Holmes Avenue.

Sidewalks are provided along both sides of West Main Street in the vicinity of the intersection. Sidewalks are greater than or equal to 8.5 feet wide on both sides of the intersection. Crosswalks span both side streets and the eastern leg of the intersection. The eastern crossing provides an eight-foot pedestrian refuge area in the median between the eastbound and westbound travel lanes. Blended transition ramps with detectable warning panels are only provided for crossing the southern leg of the intersection.

The existing traffic signal control includes three vehicular phases and an exclusive pedestrian phase however no pedestrian push buttons, or signal heads are provided at this intersection.

West Main Street at Central Avenue

The intersection of West Main Street at Central Avenue is a three legged unsignalized intersection with West Main Street providing the eastbound and westbound approaches while Central Avenue provides the southbound approach. West Main Street's eastern leg is adjacent to the intersection of West Main Street at Church Street and the West Main Street Confluence at the west end of the Green. The western leg provides seven total travel lanes, three lanes traveling westbound, one eastbound dedicated left turn lane, and three additional lanes heading eastbound towards the Green. A median that is raised for approximately 15 feet at the intersection and striped along the eastbound approach separates the eastbound and westbound travel lanes, creating a roadway width of approximately 97 feet.

Sidewalks are provided along West Main Street and a crosswalk spans only the Central Avenue leg. The sidewalk width east and west of Central Avenue is approximately 16 feet and 8.5 feet, respectively. Blended transition ramps without detectable warning panels are provided for this crossing.

West Main Street at Church Street & West Main Street Confluence

The intersection of West Main Street at Church Street and the West Main Street Confluence is a clustered, multi-legged intersection. West of this intersection, West Main Street is one roadway with multiple lanes in each direction. To the east and southeast of this intersection, West Main Street splits into two segments to provide circulation to the north and south around the Green. The northern portion of West Main Street provides one travel lane in each direction to the north of the Green while the southern portion of West Main Street provides two travel lanes in each direction along the south side of the Green.

West Main Street's southeastern leg at this intersection provides two through lanes and one channelized right turn lane. The northeastern leg, north of the Green, provides two through lanes and an exclusive, channelized left turn lane. The western leg of West Main Street provides one left and two right turn lanes. Church Street provides one southbound receiving lane.

Sidewalks greater than or equal to 10 feet are provided along all legs of the intersection. Crosswalks spans across the northeastern and western leg, as well as across Church Street. Blended transition ramps without detectable warning panels are provided for all crossings. It should be noted that the monument on the island in the center of the intersection is inaccessible by foot with no crosswalk provided. There is also no crosswalk provided to the southwestern corner of the Green.

The existing traffic control signal includes four vehicular phases with two concurrent pedestrian phases. Pedestrian push buttons and pedestal mounted pedestrian signal heads are provided for the western crossing.

The corridor spanning from the West Main Street at Church Street and West Main Street Confluence intersection to the end of the Green provides access to Waterbury's historic downtown and the "Pulse

Point" for Waterbury's transit bus services. This area offers access to multiple bus routes and wide sidewalks. The Green also provides a number of pedestrian amenities, including benches.

West Main Street at Leavenworth Street

The intersection of West Main Street at Leavenworth Street is a three-legged signalized intersection with West Main Street providing the eastbound and westbound approaches and Leavenworth Street providing the northbound approach. West Main Street's eastern leg provides three westbound and two eastbound travel lanes and is approximately 53 feet wide. An exclusive westbound left turn lane is provided for vehicles turning onto Leavenworth Street. The western leg provides two lanes in each direction and is approximately 50 feet wide. Two northbound approach lanes, one exclusive left and one exclusive right, are provided on Leavenworth Street.

Sidewalks greater than or equal to 10 feet are provided on both sides of West Main Street in the vicinity of the intersection and crosswalks span across all legs of the intersection. Blended transition ramps without detectable warning panels are provided for all crossings.

The existing traffic signal control includes three vehicular phases and an exclusive pedestrian phase. Pedestrian push buttons and pedestrian signal heads are provided on all corners of the intersection except the northeast. The northwest and southeast pedestrian signal heads are pole mounted while the southwest corner is pedestal mounted.

West Main Street at South Main Street, East Main Street, & North Main Street

The intersection of West Main Street at Bank Street/South Main Street, East Main Street, and North Main Street is a four-legged signalized intersection. West Main Street provides the eastbound approach, North Main Street provides the southbound approach, East Main Street provides the westbound approach, and South Main Street provide the northbound approach. West Main Street's western leg provides three eastbound and two westbound travel lanes and is approximately 56 feet wide. All approaches to the signal provide two lanes with the exception of the eastbound approach on West Main Street which provides an exclusive right turn lane and two through lanes. Left turns are prohibited on all four approaches and right turns are prohibited on the northbound, southbound and westbound approaches.

Sidewalks greater than or equal to 10 feet are provided along all legs of the intersection. Crosswalks span across all legs of the intersection. Blended transition ramps without detectable warning panels exist on all corners.

The existing traffic signal control includes four vehicular phases with concurrent pedestrian phasing. Pedestrian push buttons and pedestrian signal heads are provided on all corners of the intersection. The northeast and southwest pedestrian signal heads are pole mounted whereas the northwest and southwest corners are pedestal mounted.

West Main Street at North Main Street

The intersection of West Main Street at North Main Street is a three-legged signalized intersection with North Main Street providing the northbound and southbound approaches, and West Main Street providing the eastbound approach. West Main Street's western leg provides two eastbound approach lanes (one left and one right turn lane) and one westbound travel lane, on-street parking, and is approximately 54 feet wide. Two lanes are provided on the North Main Street northbound approach (one left turn lane and one through lane) and two southbound approach lanes are provided.

Sidewalks greater than or equal to 10 feet are provided along all legs of the intersection and crosswalks span across all legs of the intersection. Blended transition ramps without detectable warning panels exist on all corners.

The existing traffic signal control includes three vehicular phases and an exclusive pedestrian phase. Pedestrian push buttons are and pedestrian signal heads are provided on all corners of the intersection for all crossings. Two pedestrian signal heads are pole mounted and four are pedestal mounted.

West Main Street at Prospect Street

West Main Street at Prospect Street is a three way unsignalized intersection with Prospect Street forming the north leg. Single lane approaches are provided on each leg of the intersection with crosswalks and pedestrian ramps provided on the north and west legs of the intersection. Pedestrian crossing warning signs are also posted in both directions on West Main Street. On street parking is provided on both sides of West Main Street.

West Main Street at Park Place

West Main Street at Park Place is a three way unsignalized intersection with Park Place forming the north leg. Single lane approaches are provided on West Main Street while Park Place is one way north away from the intersection. Crosswalks and pedestrian ramps are provided on the north and east legs of the intersection. On street parking is present on both sides of West Main Street east of the intersection.

2.3 Access Management

Access Management represents a process which allows for safe and efficient access from private properties along a given roadway by minimizing the number and size of conflict points, therefore ensuring the safety of drivers utilizing the roadway. The process balances the needs of property owners to have sufficient access for residents and customers with those of through trips, for which frequent conflict points results in a decrease in efficiency and safety.

The corridor spanning from the Route 8 overpass to the Sperry Street intersection has nine driveway curb cuts over 1,000 feet due to the large number of commercial properties on the corridor including J's Ocean Fish Market, Heritage Auto Sales, Happy Hand Car Wash, two gas stations, West Main Auto, and Auto Zone. These driveway curb cuts, coupled with the intersections of Jackson Street, Commercial

Street, and Thomaston Avenue/Walgreens driveway create a significant number of turning vehicle conflict points along this roadway segment.

The section of West Main Street spanning from the Willow and Meadow Street intersection to the Church Street intersection provides six lanes, striped and solid medians, and also has nine driveway curb cuts over a short 700 feet stretch, not including the public street intersections. Access management was noted to be especially poor at the Meadow Street Automotive and former 7-11 properties on the east side of the Willow/Meadow Street intersection. These site driveway curb cuts are located very close to, or within, the intersection of West Main/Willow/Meadow Street creating additional unsafe turning vehicle conflict points within the intersection.

From a more global perspective, the auto orientation of land use along West Main Street is the primary contributing factor to the access management issues along the corridor. Zoning modifications and better urban design would place less focus on vehicular access to parcels along the corridor and more prioritization of multimodal transportation and pedestrian accommodations.

2.4 Pedestrian Facilities

Every trip begins and ends on foot, and walking is the least expensive way to get from one place to another. Aside from providing direct access to commercial, civic, recreational, and other destinations, good pedestrian facilities are essential to the success of every other travel mode. These facilities include sidewalks of adequate width, visible crosswalks, accessible ramps, pedestrian signals, and a variety of streetscaping measures that also affect comfort and safety. Appropriate lighting, shading, and resting places are important components of the pedestrian experience. Pedestrian routes should be direct and well maintained to aid in walkability.

Sidewalks are present along the entire study corridor but vary in width and condition. Sidewalks are widest near West Main Street's intersection with Willow Street and Meadow Street and at the Green. The corridor section spanning from Thomaston Avenue to Sperry Street offers narrower sidewalks in generally poorer conditions. The northern sidewalk under the railroad overpass was constructed using bituminous concrete however this is scheduled to be replaced by CTDOT as part of the railroad bridge replacement project.

A number of intersections are lacking in pedestrian amenities including accessible ramps, working push buttons, and crosswalks. However, most of the traffic signals in the corridor are slated for replacement as part of the Waterbury Congestion Mitigation Air Quality (CMAQ) funded traffic signal upgrade project which is currently under design. New ADA-compliant ramps, pedestrian signal heads with countdown timers, and pedestrian push buttons with APS (accessible pedestrian signal) technology will be provided, significantly improving pedestrian safety at the major intersections on West Main Street.

In addition, there were several areas noted along the corridor where pedestrian crossings were either deficient or lacking all together. Some examples include:

- Jackson Street – bus stops are provided on both sides of the roadway at this recently constructed intersection however no crosswalks are present
- Thomaston Avenue – crosswalks are missing from the east and south legs of the intersection
- Thomaston Avenue east to Judd Street – a lengthy 1,100-foot stretch of road exists with no pedestrian crosswalks resulting in several observed instances of people taking chances crossing the road at mid-block locations. This also includes the Sperry Street intersection which has limited sight distance and excessive pavement width on the north and east legs.
- Judd Street – an unsignalized crossing is provided on the west side of the Judd Street intersection however the crosswalk and advance pedestrian crossing signage is substandard and excessive crossing pavement width exists. Three pedestrian crossing fatalities have been reported in this area.
- Willow/Meadow Street intersection – a diagonal crosswalk exists across the center of the intersection along with substandard pedestrian ramps and pedestrian signal equipment. Diagonal crosswalks are undesirable given the maximum number of turning vehicle conflict points that exist in the center of an intersection.
- Willow/Meadow Street east to the Green – West Main Street is excessively wide (6+ lanes) through this section along with deficient or missing pedestrian signal equipment at intersections creating an unsafe pedestrian crossing condition.
- Green – while good pedestrian amenities are provided in the Green itself, there are no crosswalks provided to access the southwestern corner of the Green and the monument on the island to the west of the Green is inaccessible to pedestrians.

2.5 Bicycle Facilities

Currently, there are no facilities, features or other accommodations for bicyclists traveling along the corridor. Almost the entire width of West Main Street is occupied by travel lanes. Where shoulder edge lines exist, the designated shoulder area is narrow and cannot accommodate bicyclists. Along sections where only one travel lane is provided in each direction, the shoulder area is generally used for on-street parking. Because of these conditions, bicyclists are forced to ride in the travel lanes and share the space with motorized vehicles.

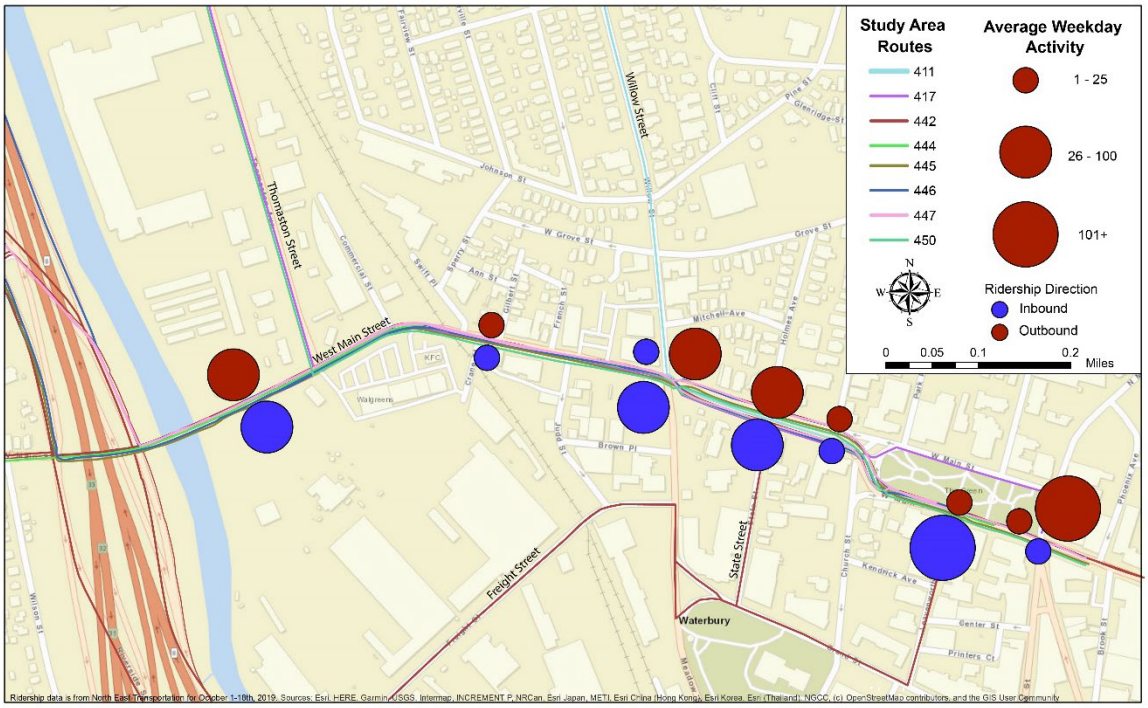
2.6 Transit Facilities & Service

The Green functions as the system hub for CTtransit in Waterbury. Many local routes use the West Main Street Corridor inbound to the Green and outbound to destinations outside of Downtown Waterbury. The eight different bus routes serving the Green along the West Main Street Corridor are shown in Table 1 below. Data reflect typical pre-COVID weekday ridership within the study area provided by Northeast Transportation, CTtransit's contract operator, for October 1-18, 2019.

Table 1
Study Area Bus Frequency and Ridership

Route # & Destination	Number of Daily Bus Trips (Eastbound)	Number of Daily Bus Trips (Westbound)	Average On (Weekday)	Average Off (Weekday)
411 to Willow Street/Overlook	27	27	125	93
417 to Thomaston Avenue	11	11	34	22
442 to Chase Parkway	23	23	57	112
444 to Bunker Hill Avenue	18	18	113	102
445 to Watertown Avenue	13	13	113	129
446x to Watertown Industrial Park	3	3	14	17
447x to Watertown – Straits Turnpike	2	2	7	11
450x to Waterbury/Torrington	10	9	8	8

Figure 2: West Main Street Corridor Bus Routes and Stop Activity



Average daily ridership activity in the study area is captured by Figure 1. Outbound activity is depicted by the red circles, with the larger circles indicating more than 100 combined boardings and alightings at the specified bus stop. Inbound activity is displayed in blue and closely aligns with outbound activity in most locations.

Table 2
Study Area Bus Stop Activity
(October 1-18, 2019 CTtransit Ridership Data)

Bus Stop Name	Average Weekday On		Average Weekday Off	
East Main St. & N Main St.	279		14	
West Main St. & Central Ave.	16		8	
West Main St. & Willow St.	41		32	
Willow St. & W Main St.	8		9	
W Main St. & State St.	16		15	
West Main & Leavenworth St.	0		309	
W Main St. & OPP Gilbert St.	12		13	
W Main St. & Meadow St.	28		22	
W Main St. & Sperry St.	6		7	
Waterbury Green on North Main	-	16	-	1
W Main St. & Thomaston Ave	704	604	50	43
State St. & W Main St.	207	272	15	19

Study area routes and stops are generally serviced every 15 to 30 minutes by each bus route during the peak periods. Scheduled bus speeds are dependent on traffic flow. Based on the route, bus travel speeds fluctuate between 7 to 30 mph, with the slightly lower average speed accounting for stop and go traffic, as well as dwell time at numerous stops along the route. As expected, bus stop activity is highest at the stops associated with the system hub at the Green.

Bus stop amenities are limited throughout the corridor. Two bus shelters are provided on the east end of the Green and several pedestrian benches and trash receptacles are provided along the north and south sides of the Green. The remainder of the bus stops along the study corridor are denoted with signage but have no amenities. With the exception of the east side of the Green, there are also no bus pull off areas present along the corridor. Buses must stop along the curb line in the travel lane to pick up and drop off passengers.

2.7 Traffic Volumes, Speeds and Counts

The greatest potential for traffic impact on the roadway network will occur during the weekday morning and afternoon peak hours, the period when commuter and transit related trips are at their highest levels.

The morning peak hour is from 8 a.m. to 9 a.m. and the afternoon peak hour is from 4 p.m. to 5 p.m. Outside of these peak times, traffic along the corridor varies but does not reach peak levels.

In order to understand existing and future traffic operations, turning movement counts were determined using the Streetlight Data transportation analytics platform. (Note: StreetLight Data collects travel information from cell phones and other GPS sources and estimates hourly and daily traffic volumes and turning patterns using proprietary algorithms). Traffic data developed from the StreetLight Data platform were compared with existing available traffic counts from the Waterbury East Main Street study and the CTDOT traffic database to calibrate the numbers. Additionally, manual turning movement counts were conducted at the intersection of West Main Street at Church Street and the West Main Street Confluence on November 24, 2020, because the StreetLight platform was unable to analyze the geometry. The approach and exit volumes for the corridor were then adjusted and balanced to reflect a consistent flow of traffic from one intersection to the next.

Upon consultation with the Connecticut Department of Transportation (CTDOT) Planning Bureau, a 2020 existing traffic volume network was developed and approved by CTDOT. The existing traffic volumes for the weekday morning and afternoon peak hours can be found attached in the volume figures included in *Appendix B*.

3 Background Traffic Conditions

3.1 Previous Studies and Ongoing Projects

Previous studies and plans that have been completed by different entities for the City of Waterbury that are in close proximity to the study area were reviewed to determine their relevance to this project. The following projects were identified to have some overlap with the present West Main Street Corridor Study.

The Waterbury Area Transit Study (WATS) Market Analysis was conducted in May 2015. Phase One of WATS covers bus ridership trends, transfer patterns, comparison to other bus agencies, bus rider survey results, and typical market analysis of density/demographics. The results of this study showed that the Green acts as a pulse system – where all routes come together every hour or half hour – intended to facilitate transfers. Of the riders surveyed, a high percentage ride the bus daily for necessary trips (i.e. commuting) because they do not have the option of driving. The study illustrates the importance the Green serves as a transit hub for the city.

The City of Waterbury Downtown Strategic Plan, published in August 2015, is a long-term plan for revitalizing and developing downtown Waterbury. The goal is to develop the historic downtown and Freight Street District by improving the circulation of these two areas. This is contingent on transit and pedestrian oriented development and connectivity, implementing bike infrastructure, and improving the Green as a transit hub. Portions of this plan have been implemented with the recent reconstruction of Freight Street, streetscape improvements, the construction of a cycle track, and the connection of Jackson Street from Freight Street to West Main Street. The Green was also rehabilitated and renovated

in 2018. This work was completed as part of the USDOT funded TIGER grant and is referred to as the WATER project.

The Waterbury Bus Route and Operations Traffic Analysis Memo, published in July 2016, evaluates potential impacts of reconfiguring the bus network at 121 North Main Street at the intersection of North Main Street and East Main Street. The results of this study recommend adding a protected left turn phase to the signal plan for southbound buses and restriping to have a bus only left turn lane with a loop detector. Other recommendations from the project include coordinating the signal with the West Main Street at North Main Street intersection, better enforcement of illegally parked vehicles, and retiming of the eastbound and westbound traffic signal splits.

The WATS Recommendations of December 2017 include short- and long-term enhancements to bus service in Waterbury, an environmental justice analysis, a public outreach summary, and field observations. The Green is the busiest location in the Waterbury bus system and a long-term solution is to divert some bus traffic away from the Green with new transit routes.

A Traffic Impact Study for the East Main Street Streetscape and Utility Improvement Project authored by Milone and MacBroom dated April 2019 evaluates the possibility of a road diet on East Main Street, permitting turning movements at the North, South, East, and West Main Street intersection, and signal phasing recommendations. The conclusions of this study found that a road diet is feasible, road closures on Phoenix Avenue and Brown Street cannot be pursued further, and the aforementioned intersection can lift turning restrictions for all westbound turns, eastbound left turns, and northbound right turns. The recommended signal phasing for permitting these turning movements would maintain the existing cycle length, eliminate the existing advance eastbound vehicle phase, and include an exclusive pedestrian phase.

The City's most recent Plan of Conservation and Development Study cites West Main Street as an example of a street with excessive pavement width and notes that traffic volumes indicate West Main Street does not warrant a seven-lane roadway. The study also notes that a grant was received for ADA pedestrian ramp installation on several City streets, including West Main Street.

Waterbury received funding under the federal CMAQ program to upgrade and replace traffic signals at 15 intersections in the downtown area, six of which are located along West Main Street within the study area. The project includes the complete replacement of traffic signal equipment and pedestrian signal equipment. The six intersections in the study area are: West Main Street at Holmes/State Street, West Main Street at Church Street and the West Main Street Confluence, West Main Street at Leavenworth Street, West Main Street at South Main Street/Bank Street, East Main Street, and North Main Street, and West Main Street at North Main Street. The project is currently under design.

The CTDOT office of Rails is currently designing project 0170-3320 for the rehabilitation of the West Main Street railroad bridge adjacent to the Sperry Street intersection. Work on the roadway level will be performed to encapsulate the existing columns in a reinforced concrete safety shape barrier. Impact attenuation devices will be provided for protection, sidewalks will be rebuilt, and existing streetscape features will be maintained. The primary traffic impact during construction will be a one to two day detour of West Main Street traffic for the removal of the structural steel over the roadway and sidewalks,

as well as for the installation of the new steel girders spanning the roadway. The suggested detour route (approximately 1.5 miles) is along Riverside Street to Freight Street to Meadow Street and back to West Main Street. This project is currently in semi-final design.

Lastly, CTDOT is also currently in construction with a major rehabilitation project to extend the service life of the "Mixmaster" interchange of Route 8 and Interstate 84 adjacent to the study area, along with several associated bridge structures. The CTDOT has also initiated an alternatives analysis to the long-term rehabilitation or replacement of the interchange. The goal of this study is to determine the preferred long-term action for the interchange.

4 Analyses

4.1 Traffic Safety Data

Crash data was gathered from the University of Connecticut Crash Data Repository for the following intersections:

- West Main Street at Riverside Street and Watertown Avenue
- West Main Street at Thomaston Avenue
- West Main Street at Sperry Street
- West Main Street at Gilbert Street
- West Main Street at French Street and Judd Street
- West Main Street at Meadow Street and Willow Street
- West Main Street at Holmes Avenue at State Street
- West Main Street at Central Avenue
- West Main Street at Church Street and West Main Street Confluence
- West Main Street at Park Place
- West Main Street at Prospect Street
- West Main Street at Leavenworth Street
- West Main Street at South Main Street/Bank Street, East Main Street, and North Main Street
- West Main Street at North Main Street
- West Main Street at no intersection/unknown

The records were gathered for the most recent five years of available data, from January 1, 2016, through December 31, 2020. A summary of the crash data per intersection is provided in *Table 7* of *Appendix A*. A detailed tabulation of the crash data has been provided in *Appendix A*.

The intersection of West Main Street at Riverside Street and Watertown Avenue experienced an average of approximately four crashes per year. During the five-year span, the intersection experienced nine angled crashes, six front to rear crashes, four sideswipes, one hit fixed object crash, and one crash where the manner of collision is unknown. Of these 21 crashes, 13 involved property damage only, two involved possible injuries, and six involved suspected minor injuries.

The intersection of West Main Street at Thomaston Avenue experienced an average of approximately 41 crashes per year. During the five-year span, the intersection experienced 101 angled crashes, 57 front to rear crashes, 22 sideswipes, ten fixed object crashes, three collisions involving pedestrians, and 12 crashes where the manner of collision is unknown. Of these 205 crashes, 150 involved property damage only, 37 involved possible injuries, and 18 involved suspected minor injuries. This intersection has the highest crash rate out of all study intersections and has a high frequency of angled crashes, likely due to vehicles turning onto and off of West Main Street.

The intersection of West Main Street at Sperry Street experienced an average of approximately nine crashes per year. During the five-year span, the intersection experienced 15 angled crashes, ten front to rear crashes, eight sideswipes, one fixed object crash, one collision involving a pedestrian, and 12 crashes where the manner of collision is unknown. The angled crashes involved vehicles turning onto or off of Sperry Street and it is possible the skewed intersection alignment and limited sight lines were a factor in some of these. Of these 47 crashes, 37 involved property damage only, eight involved possible injuries, and two involved suspected minor injuries.

The intersection of West Main Street at Gilbert Street experienced an average of approximately one crash per year. During the five-year span, the intersection experienced three angled crashes, one front to rear crash, one collision involving a pedestrian, and one crash where the manner of collision is unknown. Of these six crashes, one involved property damage only, three involved possible injuries, and two involved suspected minor injuries.

West Main Street at French Street and Judd Street experienced an average of approximately three crashes per year. During the five-year span, the intersection experienced two angled crashes, three front to rear crashes, one sideswipe, two fixed object crashes, one pedestrian involved collision, and three crashes where the manner of collision is unknown. Of these 13 crashes, ten involved property damage only, two involved possible injuries, and one involved a suspected serious injury.

The intersection of West Main Street at Meadow Street and Willow Street experienced an average of approximately 16 crashes per year. During the five-year span, the intersection experienced 20 angled crashes, 28 front to rear crashes, 13 sideswipes, seven fixed object crashes, two collisions involving pedestrians, and 11 crashes where the manner of collision is unknown. Of these 81 crashes, 60 involved property damage only, 13 involved possible injuries, and eight involved suspected minor injuries. This intersection has the second highest crash rate out of all study intersections and has a high frequency of angled and front to rear crashes. Offset intersection alignments in both directions, drivers violating the no left turn restrictions, and private development driveways in proximity to the intersection are contributing factors in some of these crashes.

The intersection of West Main Street at Holmes Avenue and State Street experienced an average of approximately 11 crashes per year. During the five-year span, the intersection experienced 35 angled crashes, two front to rear crashes, three sideswipes, nine fixed object crashes, and two crashes where the manner of collision is unknown. Of these 51 crashes, 35 involved property damage only, nine involved possible injuries, six involved suspected minor injuries, and one involved a suspected serious injury. This intersection has the second highest number of angled crashes in the corridor. The street width here is a probable contributing factor to this high crash frequency.

The intersection of West Main Street at Central Avenue experienced an average of two crashes per year. During the five-year span, the intersection experienced two angled crashes, two front to rear crashes, two sideswipes, one collision involving a pedestrian, and three crashes where the manner of collision is unknown. Of these ten crashes, seven involved property damage only, two involved possible injuries, and one involved a suspected minor injury.

The intersection of West Main Street at Church Street and West Main Street Confluence experienced an average of approximately six crashes per year. During the five-year span, the intersection experienced five front-to-rear crashes, 16 sideswipes, four fixed object crashes, and seven crashes where the manner of collision is unknown. Of these 32 crashes, 27 involved property damage only, three involved possible injuries, and two involved suspected minor injuries. This intersection displays a high pattern of sideswipe crashes likely due to its geometry and multilane, curved approaches.

The intersection of West Main Street at Park Place experienced an average of less than one crash per year. During the five-year span, the intersection experienced two angled crashes, one front to rear crash, and one sideswipe. Of these four crashes, three involved property damage only and one involved a possible injury.

The intersection of West Main Street at Prospect Street experienced an average of less than one crash per year. During the five-year span, the intersection experienced one front to rear crash, one sideswipe in the same direction, and one crash where the manner of collision is unknown. All three of these crashes were reported to involve property damage only.

The intersection of West Main Street at Leavenworth Street experienced an average of approximately five crashes per year. During the five-year span, the intersection experienced three angled crashes, seven front to rear crashes, five sideswipes, one fixed object crash, three pedestrian involved collisions, and four crashes where the manner of collision is unknown. Of these 23 crashes, 18 involved property damage only, two involved possible injuries, two involved suspected minor injuries, and one involved a suspected serious injury.

The intersection of West Main Street at South Main Street/Bank Street, East Main Street, and North Main Street experienced an average of approximately eight crashes per year. During the five-year span, the intersection experienced six angled crashes, 12 front to rear crashes, eight sideswipes, two fixed object crashes, and eight crashes where the manner of collision is unknown. Of these 36 crashes, 29 involved property damage only, four involved possible injuries, and three involved suspected minor injuries.

The intersection of West Main Street at North Main Street experienced an average of approximately nine crashes per year. During the five-year span, the intersection experienced six angled crashes, 18 front to rear crashes, eight sideswipes, one fixed object crash, two collisions involving pedestrians, and eight crashes where the manner of collision is unknown. Of these 43 crashes, 31 involved property damage only, five involved possible injuries, and seven involved suspected minor injuries.

An average of 57 crashes per year occurred along the West Main Street corridor that were not associated with an intersection. During the five-year span, the corridor segments in between the study intersections experienced 64 angled crashes, 106 front to rear crashes, 66 sideswipe, 16 fixed object crashes, nine collisions involving pedestrians, and 28 crashes where the manner of collision is unknown. Of these 289 crashes, 217 involved property damage only, 39 involved possible injuries, 30 involved suspected minor injuries, one involved a suspected serious injury, and two involved pedestrian fatalities. The West Main Street corridor displays a high frequency of rear end crashes suggesting a multitude of issues are present along the corridor including general congestion, queuing at traffic signals, following too closely, and distracted driving.

The two pedestrian fatalities were recorded along West Main Street west of the Meadow and Willow Street intersection near the Big Apple Motel. One crash occurred during daylight and the other at night. Road surface conditions were dry and the weather was clear. No contributing circumstances were determined to have impacted these fatalities.

A third fatality, not recorded in UConn's Crash Data Repository, occurred during the five-year study period. The crash took place at a similar location to the previous two fatalities on December 27, 2020. The crash occurred around 3:00 A.M. and the driver was under the influence of drugs and alcohol.

4.2 Intersection Capacity Analysis

Capacity analyses for both signalized and unsignalized intersections were conducted using Synchro Professional Software, version 10.0.

In discussing intersection capacity analyses results, two terms are used to describe the operating condition of the road or intersection. These two terms are volume to capacity ratio (v/c) and level of service (LOS).

The v/c ratio is a ratio of the volume of traffic using an intersection to the total capacity of the intersection (the maximum number of vehicles that can utilize the intersection during an hour). The v/c ratio can be used to describe the percentage of capacity utilized by a single intersection movement, a combination of movements, an entire intersection approach, or the intersection as a whole.

LOS is a measure of the delay experienced by stopped vehicles at an intersection. LOS is rated on a scale from A to F, with A describing a condition of very low delay (less than 10 seconds per vehicle), and F describing a condition where delays will exceed 50 seconds per vehicle for unsignalized intersections and 80 seconds per vehicle for signalized intersections. Delay is described as a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Therefore, intersections with longer delay times are less acceptable to most drivers.

LOS is generally used to describe the operation (based on delay time) of both signalized and unsignalized intersections, while v/c ratio is applied to signalized intersections only. These definitions for v/c ratio and LOS, as well as the methodology for conducting signalized and unsignalized

intersection capacity analyses, are taken from the "Highway Capacity Manual 6th Edition" published by the Transportation Research Board.

In discussing two way stop controlled unsignalized intersection capacity analyses, LOS is used to provide a description of the delay and operational characteristics of the turns from the minor street (stop sign controlled) to the major street, and turns from the major street to the minor street. Through vehicles are not delayed by the minor street and do not experience delay, therefore they are not rated with a level of service.

In discussed all-way stop controlled intersection capacity analysis, LOS provides a description of the delay for each approach as well as the overall intersection.

Using the above referenced methodologies, the weekday morning and afternoon peak hour existing capacity analyses were conducted at the following intersections:

- West Main Street at Riverside Street and Watertown Avenue southbound
- West Main Street at Riverside Street and Watertown Avenue northbound
- West Main Street at Thomaston Avenue and Walgreens Driveway
- West Main Street at Sperry Street
- West Main Street at Meadow Street and Willow Street
- West Main Street at Holmes Avenue at State Street
- West Main Street at Central Avenue
- West Main Street at Church Street and West Main Street Confluence
- West Main Street at Leavenworth Street
- West Main Street at South Main Street/Bank Street, East Main Street, and North Main Street
- West Main Street at North Main Street
- Johnson Street at Sperry Street
- Johnson Street at Willow Street

Tables 3 and 4 present a summary of the levels of service at the signalized and unsignalized intersections, respectively. The Synchro analysis worksheets are attached as *Appendix C* and *D* for the weekday morning and afternoon hours, respectively.

For analysis purposes, the West Main Street approaches are referred to as eastbound and westbound and the side street approaches are typically referred to as northbound and southbound approaches. The peak hour traffic volumes developed from Streetlight Data and the manual turning movement count were used in the analyses. The intersection of West Main Street at Jackson Street was not included in the analysis as sufficient data from Streetlight was not available.

The signalized intersection of West Main Street at Watertown Avenue and Riverside Street southbound operates at LOS D and LOS E during the morning and afternoon peak hours respectively. The northbound approach operates worst at LOS E during the morning peak hour and at LOS F during the afternoon peak hour.

The intersection of West Main Street at Thomaston Avenue operates at a good level of service (LOS B) during the morning peak hour but operations deteriorate to a LOS E with more significant delay during the afternoon peak hour. The intersection of West Main Street at Meadow Street and Willow Street operates inefficiently at LOS D and LOS F during the morning and afternoon peak hours respectively. The unsignalized intersection of West Main Street at Sperry Street operates poorly with the Sperry Street approach experiences LOS F conditions during both the morning and afternoon peak hours.

With exception of the locations noted above, the remainder of the intersections in the study corridor operate at an acceptable level of service, at LOS B or better, during both peak hours. This indicates that the roadway has ample reserve capacity at these locations.

Table 3
Signalized Intersection Existing Level of Service Summary
West Main Street Corridor Study
Waterbury, Connecticut

Signalized Intersections	Weekday Morning Peak Hour	Weekday Afternoon Peak Hour
West Main St. at Watertown Ave. & Riverside St. SB	**0.73/LOS D**	**0.99/LOS E**
EB Approach	LOS D	LOS F
WB Approach	LOS B	LOS D
SB Approach (Watertown Ave.)	LOS E	LOS D
SE Approach (Route 8 Off Ramp)	LOS E	LOS F
West Main St. at Watertown Ave. & Riverside St. NB	**0.69/LOS E**	**0.95/LOS F**
EB Approach	LOS A	LOS A
WB Approach	LOS D	LOS D
NB Approach	LOS F	LOS F
West Main St. at Thomaston Ave.	**0.80/LOS B**	**1.07/LOS E**
EB Approach	LOS B	LOS F
WB Approach	LOS B	LOS D
NB Approach	LOS C	LOS B
SB Approach	LOS C	LOS C

West Main St. at Meadow St. & Willow St.	**1.13/LOS F**	**2.98/LOS F**
EB Approach	LOS D	LOS F
WB Approach	LOS B	LOS B
NB Approach	LOS F	LOS F
SB Approach	LOS F	LOS F
West Main St. at Holmes Ave. & State St.	**0.29/LOS A**	**0.39/LOS A**
EB Approach	LOS A	LOS A
WB Approach	LOS A	LOS A
NB Approach	LOS B	LOS C
SB Approach	LOS B	LOS B
West Main St. at Church St. & West Main St. Confluence	**0.35/LOS B**	**0.44/LOS B**
WB Approach	LOS C	LOS C
SE Approach	LOS A	LOS A
NW Approach	LOS B	LOS B
West Main St. at Leavenworth St.	**0.41/LOS A**	**0.56/LOS B**
EB Approach	LOS A	LOS B
WB Approach	LOS A	LOS A
NB Approach	LOS B	LOS B

West Main St. at South Main St./Bank St., East Main St., & North Main St.	**0.37/LOS B**	**0.50/LOS B**
EB Approach	LOS A	LOS A
WB Approach	LOS A	LOS A
NB Approach	LOS B	LOS C
SB Approach	LOS C	LOS C
West Main St. at North Main St.	**0.35/LOS B**	**0.44 LOS B**
EB Approach	LOS C	LOS C
NB Approach	LOS A	LOS A
SB Approach	LOS B	LOS B
Johnson St. at Willow St. & Pine St.	**0.49/LOS A**	**0.52/LOS A**
EB Approach	LOS A	LOS B
WB Approach	LOS A	LOS B
NB Approach	LOS A	LOS A
SB Approach	LOS A	LOS A

*Values indicated are intersection v/c Ratio/LOS

Table 4
Unsignalized Intersection Existing Level of Service Summary
West Main Street Corridor Study
Waterbury, Connecticut

Unsignalized Intersections	**Weekday Morning Peak Hour**	**Weekday Afternoon Peak Hour**
West Main St. at Sperry St.	**21.5/LOS C**	**391.1/LOS E**
EB Approach	LOS B	LOS C
WB Approach	-	-
SB Approach	LOS F	LOS F
West Main St. at Central Ave.	**0.7/LOS A**	**1.5/LOS A**
EB Approach	LOS A	LOS A
WB Approach	-	-
SB Approach	LOS C	LOS C
Sperry St. at Johnson St. & Waterville St.	**6.0 /LOS A**	**7.5 /LOS A**
EB Approach	LOS B	LOS C
WB Approach	LOS B	LOS C
NB Approach	-	-
SB Approach	-	-

*All values indicated are intersection delay in seconds/LOS

4.3 Queue Analysis

Background and Combined Condition 95th percentile (design) queue lengths were reviewed at each intersection in the study area. The 95th percentile (design) vehicle queue lengths represent the maximum queue lengths that can be expected at each of the critical approach lanes of the study area intersections. The queue lengths are provided in the Synchro capacity analysis worksheets, which are attached. Tables 5 and 6 provide a summary of the queue lengths for the critical lanes at each intersection during the morning and afternoon peak hour respectively.

The 95th percentile queue lengths experienced along the corridor are contained within the provided storage capacity for the turning movements analyzed except for the following movements:

- Eastbound through movement and Southeast left turn at the Watertown Avenue and Riverside Street southbound intersection during both peak hours
- Westbound through movement at the Watertown Avenue and Riverside Street southbound intersection during the afternoon peak hour
- Northbound through movements at the Watertown Avenue and Riverside Street northbound intersection in the afternoon peak hour
- Westbound through movement at the Thomaston Avenue intersection in the afternoon peak hour
- Southbound left turns at the Sperry Street intersection during both peak hours
- Northbound through/left turn movement at the Meadow Street and Willow Street intersection during both peak hours
- Southbound through movements at the Meadow Street and Willow Street intersection during both peak hours

Table 5
Weekday Morning Peak Hour Queue Length Summary
West Main Street Corridor Study
Waterbury, Connecticut

Intersection	Approach Lane	2020 Existing Queue	Available Storage
West Main St. at Watertown Ave. & Riverside St. Southbound	EB Through	465 Feet	
	EB Right Turn	55 Feet	50 Feet
	WB Through	150 Feet	200 Feet
	WB Left Turn	40 Feet	200 Feet
	SB Left Turn	325 Feet	500 Feet
	SB Through/Right Turn	305 Feet	500 Feet
	SE Left Turn	*325 Feet*	*300 Feet*
	SE Through/Right Turn	195 Feet	
West Main St. at Watertown Ave. & Riverside St. Northbound	EB Left Turn	30 Feet	200 Feet
	EB Through	65 Feet	200 Feet
	WB Through	445 Feet	700 Feet
	WB Right Turn	70 Feet	700 Feet
	NB Left Turn	65 Feet	150 Feet
	NB Through	630 Feet	
	NB Right Turn	60 Feet	150 Feet
West Main St. at Thomaston Ave	EB Approach	185 Feet	700 Feet
	WB Left Turn	5 Feet	150 Feet
	WB Through	520 Feet	
	WB Right Turn	75 Feet	250 Feet
	NB Left Turn	20 Feet	50 Feet
	NB Through	0 Feet	50 Feet
	NB Right Turn	0 Feet	50 Feet
	SB Through/Left Turn	155 Feet	
	SB Right Turn	55 Feet	150 Feet
West Main St. at Sperry St.	EB Through/Left Turn	25 Feet	
	WB Through/Right Turn	0 Feet	

Intersection	Approach Lane	2020 Existing Queue	Available Storage
	SB Left Turn	*210 Feet*	*100 Feet*
	SB Right Turn	60 Feet	
West Main St. at Meadow St. & Willow St.	EB Through	330 Feet	
	EB Through/Right	330 Feet	350 Feet
	WB Left Turn	40 Feet	
	WB Through/Right Turn	95 Feet	
	NB Through/Left Turn	*495 Feet*	*375 Feet*
	NB Right Turn	25 Feet	375 Feet
	SB Through	320 Feet	400 Feet
	SB Right Turn	50 Feet	125 Feet
West Main St. at Holmes Ave. & State St.	EB Left Turn	15 Feet	100 Feet
	EB Through	55 Feet	
	WB Through/Right Turn	55 Feet	
	NB Through/Left Turn	50 Feet	
	NB Right Turn	10 Feet	100 Feet
	SB Left/Right Turn	15 Feet	
West Main St. at Central Ave.	EB Left Turn	5 Feet	100 Feet
	WB Through/Right Turn	0 Feet	
	SB Right Turn	10 Feet	
West Main St. at Church St. & West Main St. Confluence	WB Left Turn	75 Feet	75 Feet
	SE Left Turn	95 Feet	
	SE Through	80 Feet	
	NW Through	100 Feet	
	NW Right Turn	10 Feet	50 Feet
West Main St. at Leavenworth St	EB Through/Right Turn	95 Feet	
	WB Left Turn	15 Feet	50 Feet
	WB Through	45 Feet	
	NB Left Turn	55 Feet	

Intersection	Approach Lane	2020 Existing Queue	Available Storage
	NB Right Turn	30 Feet	80 Feet
West Main St. at South Main St./Bank St., East Main St. & North Main St.	EB Through	85 Feet	
	EB Right Turn	10 Feet	100 Feet
	WB Through	75 Feet	
	NB Through	70 Feet	
	SB Through	95 Feet	130 Feet
West Main St. at North Main St.	EB Left Turn	80 Feet	
	EB Right Turn	25 Feet	100 Feet
	NB Left Turn	70 Feet	130 Feet
	NB Through	45 Feet	130 Feet
	SB Through/Right Turn	110 Feet	
Johnson Street at Sperry Street and Waterville Street	EB Approach	15 Feet	
	WB Approach	20 Feet	
	NB Approach	0 Feet	
	SB Approach	5 Feet	
Johnson St. at Willow St. & Pine St.	EB Approach	55 Feet	
	WB Approach	65 Feet	
	NB Through/Left Turn	80 Feet	150 Feet
	NB Right Turn	15 Feet	90 Feet
	SB Approach	80 Feet	

NOTE:

- Values indicated represent 95th percentile (design) vehicle queue lengths. Values are rounded to the nearest 5 feet.
- Italicized values indicate the 95th percentile queue exceeds the available storage capacity
- Available storage lengths listed are the lengths of turn lane storage bays or the distance in the lane available to the next intersection. Storage lengths for through lanes with ample distance to the nearest intersection are not listed.

Table 6
Weekday Afternoon Peak Hour Queue Length Summary
West Main Street Corridor Study
Waterbury, Connecticut

Intersection	Approach Lane	2020 Existing Queue	Available Storage
West Main St. at Watertown Ave. & Riverside St. Southbound	EB Through	850 Feet	
	EB Right Turn	85 Feet	50 Feet
	WB Through	*335 Feet*	200 Feet
	WB Left Turn	30 Feet	200 Feet
	SB Left Turn	180 Feet	500 Feet
	SB Through/Right Turn	160 Feet	500 Feet
	SE Left Turn	*455 Feet*	*300 Feet*
	SE Through/Right Turn	375 Feet	
West Main St. at Watertown Ave. & Riverside St.	EB Left Turn	15 Feet	200 Feet
	EB Through	20 Feet	200 Feet
	WB Through	555 Feet	700 Feet
	WB Right Turn	525 Feet	700 Feet
	NB Left Turn	50 Feet	150 Feet
	NB Through	980 Feet	
	NB Right Turn	95 Feet	150 Feet
West Main St. at Thomaston Ave.	EB Approach	555 Feet	700 Feet
	WB Left Turn	10 Feet	150 Feet
	WB Through	935 Feet	
	WB Right Turn	140 Feet	250 Feet
	NB Left Turn	15 Feet	50 Feet
	NB Through	15 Feet	50 Feet
	NB Right Turn	0 Feet	50 Feet
	SB Through/Left Turn	265 Feet	
	SB Right Turn	55 Feet	150 Feet

West Main St. at Sperry St.	EB Through/Left Turn WB Through/Right Turn SB Left Turn SB Right Turn	55 Feet 0 Feet *225 Feet* 170 Feet	*100 Feet*
West Main St. at Meadow St. & Willow St.	EB Through EB Through/Right WB Left Turn WB Through/Right Turn NB Through/Left Turn NB Right Turn SB Through SB Right Turn	500 Feet 500 Feet 65 Feet 140 Feet *780 Feet* 35 Feet *480 Feet* 50 Feet	350 Feet *375 Feet* 375 Feet 400 Feet 125 Feet
West Main St. at Holmes Ave. & State St.	EB Left Turn EB Through WB Through/Right Turn NB Through/Left Turn NB Right Turn SB Left/Right Turn	20 Feet 75 Feet 80 Feet 65 Feet 0 Feet 50 Feet	100 Feet 100 Feet
West Main St. at Central Ave.	EB Left Turn WB Through/Right Turn SB Right Turn	5 Feet 0 Feet 35 Feet	100 Feet
West Main St. at Church St & West Main St. Confluenc	WB Left Turn SE Left Turn SE Through NW Through NW Right Turn	70 Feet 140 Feet 120 Feet 145 Feet 10 Feet	75 Feet 50 Feet

West Main St. at Leavenworth St.	EB Through/Right Turn WB Left Turn WB Through NB Left Turn NB Right Turn	155 Feet 20 Feet 65 Feet 75 Feet 30 Feet	50 Feet 80 Feet
West Main St. at South Main St./Bank St., East Main St. & North Main St.	EB Through EB Right Turn WB Through NB Through SB Through	150 Feet 15 Feet 130 Feet 115 Feet 120 Feet	100 Feet 130 Feet
West Main St. at North Main St.	EB Left Turn EB Right Turn NB Left Turn NB Through SB Through/Right Turn	100 Feet 35 Feet 125 Feet 75 Feet 120 Feet	100 Feet 130 Feet 130 Feet
Johnson Street at Sperry Street and Waterville Street	EB Approach WB Approach NB Approach SB Approach	20 Feet 55 Feet 5 Feet 5 Feet	
Johnson St. at Willow St. & Pine St.	EB Approach WB Approach NB Through/Left Turn NB Right Turn SB Approach	90 Feet 90 Feet 125 Feet 25 Feet 115 Feet	150 Feet 90 Feet

NOTES:

- Values indicated represent 95th percentile (design) vehicle queue lengths. Values are rounded to the nearest 5 feet.
- Italicized values indicate the 95th percentile queue exceeds the available storage capacity
- Available storage lengths listed are the lengths of turn lane storage bays or the distance in the lane available to the next intersection. Storage lengths for through lanes with ample distance to the nearest intersection are not listed.

Appendix A

Crash Data

Table 7

Intersection Crash Data Summary
Waterbury, Connecticut

Criteria	West Main St. at Riverside St. & Watertown Ave.	West Main St. at Thomaston Ave.	West Main St. at Sperry St.	West Main St. at Gilbert St.	West Main St. at French St. & Judd St.	West Main St. at Meadow St. & Willow St.	West Main St. at Holmes Ave. & State St.
YEAR							
2016	*6	43	16	1	1	17	12
2017	2	37	13	1	2	26	4
2018	4	51	5	3	6	18	14
2019	3	42	11	0	2	4	12
2020	6	32	2	1	2	16	9
Total	21	205	47	6	13	81	51
TYPE							
Angle	9	101	15	3	2	20	35
Front to Rear	6	57	10	1	3	28	2
Sideswipe	4	22	8	0	1	13	3
Fixed Object	1	10	1	0	2	7	9
Pedestrian	0	3	1	1	1	2	0
Unknown/Other	1	12	12	1	3	11	2
SEVERITY							
Property Damage Only	13	150	37	1	10	60	35
Possible Injury	2	37	8	3	2	13	9
Suspected Minor Injury	6	18	2	2	0	8	6
Suspected Serious Injury	0	0	0	0	1	0	1
Fatality (Kill)	0	0	0	0	0	0	0

Table 7 (continued)

Criteria	West Main St. at Central Ave.	West Main St. at Church St.	West Main St. at Park Pl.	West Main St. at Prospect St.	West Main St. at Leavenworth St.	West Main St. at S Main St.	West Main St. at N Main St.	West Main St. at no intersection
YEAR								
2016	0	8	3	0	5	8	6	54
2017	2	7	1	1	4	7	7	50
2018	3	10	0	0	5	11	11	64
2019	2	6	0	2	5	7	15	78
2020	3	1	0	0	4	3	4	43
Total	10	32	4	3	23	36	43	289
TYPE								
Angle	2	0	2	0	3	6	6	64
Front to Rear	2	5	1	1	7	12	18	106
Sideswipe	2	16	1	1	5	8	8	66
Fixed Object	0	4	0	0	1	2	1	16
Pedestrian	1	0	0	0	3	0	2	9
Unknown/Other	3	7	0	1	4	8	8	28
SEVERITY								
Property Damage Only	7	27	3	3	18	29	31	217
Possible Injury	2	3	1	0	2	4	5	39
Suspected Minor Injury	1	2	0	0	2	3	7	30
Suspected Serious Injury	0	0	0	0	1	0	0	1
Fatal (Kill)	0	0	0	0	0	0	0	2

*Values indicated are number of crashes within 200 feet of each intersection during time period shown.
Data provided by the Connecticut Department of Transportation via the UConn repository.

UCONN Crash Data
West Main Street from Route 8 to Waterbury Green
Waterbury, Connecticut
1/1/2016 - 12/31/2020

Date of Crash	Time of Crash	Severity	No. of Veh.	Town	Milemarker	Roadway	Intersecting Roadway Name	Collision Type	Weather	Light Condition	Road Surface Condition	Contributing Circumstances
1/3/2016	13:45:00	Possible Inj.	2	Waterbury	0.03	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/6/2016	15:05:00	PDO	1	Waterbury	0	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Daylight	Dry	None
1/13/2016	15:19:00	Sus. Minor Inj.	2	Waterbury	0.9	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Daylight	Dry	None
1/15/2016	13:50:00	PDO	2	Waterbury	3.66	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/15/2016	13:50:00	PDO	2	Waterbury	3.66	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
1/15/2016	4:35:00	PDO	1	Waterbury	0.31	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Dark-Lighted	Dry	None
1/15/2016	16:58:00	Possible Inj.	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
1/16/2016	13:46:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/16/2016	18:51:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Dark-Lighted	Dry	None
1/24/2016	23:45:00	Possible Inj.	1	Waterbury	0	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Dark-Lighted	Slush	None
1/25/2016	15:41:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
1/26/2016	15:52:00	PDO	2	Waterbury	0.1	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
1/27/2016	14:59:00	PDO	1	Waterbury	0.03	WEST MAIN ST	NORTH MAIN ST	Not Applicable	Clear	Daylight	Snow	Visual Obstruction(s)
1/28/2016	15:06:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
1/28/2016	11:35:00	Possible Inj.	3	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
1/30/2016	19:00:00	PDO	2	Waterbury	3.89	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
1/30/2016	19:00:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
1/31/2016	16:50:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Front to rear	Clear	Daylight	Dry	None
1/31/2016	15:43:00	PDO	1	Waterbury	0.16	WEST MAIN ST	unknown	Not Applicable	Clear	Daylight	Wet	None
2/1/2016	20:45:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Dark-Lighted	Dry	None
2/2/2016	19:30:00	PDO	2	Waterbury	3.67	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
2/3/2016	18:31:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Rain	Dark-Lighted	Wet	None
2/6/2016	14:32:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
2/6/2016	3:15:00	PDO	1	Waterbury	0.12	WEST MAIN ST	LEAVENWORTH ST	Not Applicable	Clear	Dark-Lighted	Dry	None
2/12/2016	17:58:00	PDO	3	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Front to rear	Clear	Dark-Lighted	Dry	None
2/13/2016	15:05:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Sideswipe, same direction	Clear	Daylight	Dry	None
2/17/2016	17:57:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
2/18/2016	9:31:00	PDO	2	Waterbury	0.02	WEST MAIN ST	PARK PL	Angle	Clear	Daylight	Dry	None
2/20/2016	14:55:00	PDO	2	Waterbury	0.02	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
2/22/2016	14:17:00	Sus. Minor Inj.	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
2/24/2016	20:50:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Rain	Dark-Lighted	Wet	None
2/27/2016	1:58:00	PDO	2	Waterbury	0.02	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Dark-Lighted	Dry	None
2/28/2016	13:39:00	PDO	2	Waterbury	3.67	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
2/28/2016	14:48:00	PDO	2	Waterbury	0.92	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
2/29/2016	15:27:00	Possible Inj.	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
3/4/2016	15:55:00	Sus. Minor Inj.	1	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Pedestrian	Clear	Daylight	Dry	Unknown
3/7/2016	9:08:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Clear	Daylight	Dry	None
3/8/2016	17:37:00	PDO	2	Waterbury	0.9	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Dark-Lighted	Dry	None
3/11/2016	11:37:00	PDO	2	Waterbury	0.2	WEST MAIN ST	SOUTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
3/15/2016	10:31:00	PDO	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Daylight	Dry	None
3/15/2016	12:43:00	PDO	2	Waterbury	3.43	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
3/15/2016	10:24:00	PDO	1	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Fixed Obj.	Cloudy	Daylight	Dry	None
3/24/2016	12:22:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Angle	Clear	Daylight	Dry	None
3/25/2016	10:01:00	PDO	2	Waterbury	3.84	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Daylight	Wet	Weather Conditions
3/30/2016	16:06:00	PDO	2	Waterbury	0.09	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
3/31/2016	8:44:00	Possible Inj.	2	Waterbury	3.64	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
4/11/2016	22:21:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Dark-Not Lighted	Wet	None
4/13/2016	18:59:00	Possible Inj.	2	Waterbury	3.9	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
4/13/2016	18:59:00	Possible Inj.	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None

4/14/2016	18:29:00	PDO	3	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Front to rear	Clear	Daylight	Dry	None
4/14/2016	14:32:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
4/14/2016	15:05:00	PDO	2	Waterbury	0.12	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
4/14/2016	16:54:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
4/14/2016	17:42:00	Possible Inj.	4	Waterbury	3.61	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
4/14/2016	11:39:00	Sus. Minor Inj.	1	Waterbury	0	WEST MAIN ST	CHURCH ST	Not Applicable	Clear	Daylight	Dry	None
4/15/2016	19:44:00	PDO	2	Waterbury	3.59	WEST MAIN ST	unknown	Front to rear	Clear	Dusk	Dry	None
4/17/2016	20:22:00	Possible Inj.	2	Waterbury	3.66	WEST MAIN ST	THOMASTON AVE	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	None
4/19/2016	21:03:00	Sus. Minor Inj.	1	Waterbury	0.71	WEST MAIN ST	RIVERSIDE ST NB	Fixed Obj.	Clear	Dark-Lighted	Dry	None
4/26/2016	13:46:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Rain	Daylight	Wet	None
4/30/2016	19:00:00	PDO	2	Waterbury	3.6	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/1/2016	9:45:00	PDO	2	Waterbury	3.68	WEST MAIN ST	JUDD ST	Rear to side	Rain	Daylight	Wet	None
5/4/2016	10:00:00	PDO	2	Waterbury	3.62	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/5/2016	17:12:00	PDO	2	Waterbury	0.7	WEST MAIN ST	RIVERSIDE ST NB	Front to rear	Clear	Daylight	Dry	None
5/9/2016	16:55:00	Possible Inj.	4	Waterbury	0.07	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
5/13/2016	7:40:00	PDO	1	Waterbury	0.27	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	None
5/14/2016	23:21:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Other	Clear	Dark-Lighted	Dry	None
5/19/2016	10:03:00	PDO	2	Waterbury	0.29	WEST MAIN ST	unknown	Rear to side	Cloudy	Daylight	Dry	None
5/20/2016	16:23:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Front to rear	Clear	Daylight	Dry	None
5/25/2016	18:28:00	PDO	2	Waterbury	3.78	WEST MAIN ST	SPERRY ST	Other	Clear	Daylight	Dry	None
5/25/2016	7:41:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
5/26/2016	8:01:00	PDO	2	Waterbury	0.97	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
5/27/2016	23:34:00	PDO	1	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
5/27/2016	10:32:00	PDO	2	Waterbury	3.66	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
5/29/2016	2:20:00	PDO	2	Waterbury	0.01	WEST MAIN ST	unknown	Rear to rear	Clear	Dark-Lighted	Dry	None
5/30/2016	1:05:00	PDO	1	Waterbury	0.2	WEST MAIN ST	unknown	Fixed Obj.	Rain	Dark-Lighted	Wet	Weather Conditions
5/30/2016	1:33:00	Sus. Minor Inj.	2	Waterbury	3.61	WEST MAIN ST	unknown	Front to rear	Rain	Dark-Lighted	Wet	None
5/31/2016	18:30:00	PDO	2	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
5/31/2016	15:08:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/8/2016	14:16:00	Possible Inj.	2	Waterbury	3.91	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
6/8/2016	14:16:00	Possible Inj.	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/9/2016	12:07:00	PDO	2	Waterbury	0.02	WEST MAIN ST	PARK PL	Front to rear	Clear	Daylight	Dry	None
6/9/2016	13:20:00	PDO	2	Waterbury	0.15	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/16/2016	15:55:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/17/2016	16:57:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Sideswipe, same direction	Clear	Daylight	Dry	None
6/23/2016	9:40:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Front to rear	Clear	Daylight	Dry	None
6/24/2016	21:01:00	PDO	2	Waterbury	3.89	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	Unknown
6/24/2016	16:59:00	Possible Inj.	2	Waterbury	3.66	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/24/2016	21:01:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	Unknown
6/26/2016	18:25:00	PDO	2	Waterbury	3.67	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/28/2016	17:23:00	PDO	2	Waterbury	0.9	WEST MAIN ST	RIVERSIDE ST NB	Sideswipe, same direction	Cloudy	Daylight	Dry	None
6/29/2016	10:13:00	PDO	2	Waterbury	0.03	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
7/2/2016	1:13:00	PDO	1	Waterbury	0.15	WEST MAIN ST	unknown	Not Applicable	Clear	Dark-Lighted	Dry	None
7/5/2016	16:01:00	PDO	2	Waterbury	3.9	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
7/5/2016	16:01:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
7/13/2016	8:13:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
7/14/2016	22:51:00	PDO	2	Waterbury	0.01	WEST MAIN ST	EAST MAIN ST	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	Unknown
7/15/2016	8:48:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Other	Clear	Daylight	Dry	None
7/15/2016	17:58:00	Possible Inj.	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
7/17/2016	2:16:00	PDO	2	Waterbury	3.73	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
7/17/2016	1:15:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
7/17/2016	17:31:00	Sus. Minor Inj.	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Dark-Lighted	Dry	None
7/17/2016	1:15:00	PDO	2	Waterbury	3.6	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Dark-Lighted	Dry	None
7/20/2016	16:50:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Other	Clear	Daylight	Dry	None
7/22/2016	19:57:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Front to rear	Clear	Daylight	Dry	None
7/23/2016	2:02:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Front to rear	Cloudy	Dark-Lighted	Dry	None

7/25/2016	15:00:00	PDO	2	Waterbury	0	EAST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
8/1/2016	12:33:00	PDO	2	Waterbury	0.03	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
8/1/2016	13:43:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/3/2016	15:37:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
8/5/2016	10:09:00	PDO	2	Waterbury	3.66	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/9/2016	17:40:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
8/9/2016	13:37:00	Possible Inj.	2	Waterbury	3.74	WEST MAIN ST	GILBERT ST	Front to rear	Clear	Daylight	Dry	None
8/11/2016	16:23:00	PDO	2	Waterbury	3.6	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/15/2016	18:17:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Other	Clear	Daylight	Dry	None
8/16/2016	13:53:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
8/16/2016	17:59:00	Sus. Minor Inj.	3	Waterbury	3.66	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
8/19/2016	12:28:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Clear	Daylight	Dry	None
8/19/2016	10:22:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
8/20/2016	13:16:00	PDO	3	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
8/24/2016	14:38:00	Possible Inj.	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Daylight	Dry	None
8/28/2016	16:22:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
8/29/2016	7:46:00	Possible Inj.	3	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Clear	Daylight	Dry	None
9/1/2016	9:47:00	Sus. Minor Inj.	3	Waterbury	0.01	WEST MAIN ST	EAST MAIN ST	Front to rear	Clear	Daylight	Dry	None
9/4/2016	2:16:00	PDO	1	Waterbury	0.18	WEST MAIN ST	unknown	Not Applicable	Clear	Dark-Lighted	Dry	None
9/9/2016	11:37:00	PDO	2	Waterbury	0.12	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
9/10/2016	20:30:00	Sus. Minor Inj.	1	Waterbury	3.58	WEST MAIN ST	MEADOW ST	Not Applicable	Clear	Dark-Lighted	Dry	None
9/14/2016	22:07:00	PDO	2	Waterbury	0.07	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
9/14/2016	22:25:00	Sus. Minor Inj.	2	Waterbury	0.18	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
9/19/2016	9:37:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Rain	Daylight	Wet	Weather Conditions
9/24/2016	1:53:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Angle	Rain	Dark-Not Lighted	Wet	None
9/25/2016	17:47:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
9/28/2016	19:32:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Dark-Lighted	Dry	None
9/30/2016	21:41:00	Sus. Minor Inj.	1	Waterbury	0	WEST MAIN ST	WILLOW ST	Fixed Obj.	Rain	Dark-Lighted	Wet	Weather Conditions
10/4/2016	14:16:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/7/2016	20:02:00	PDO	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
10/9/2016	2:05:00	Sus. Minor Inj.	1	Waterbury	3.76	WEST MAIN ST	unknown	Pedestrian	Rain	Dark-Lighted	Wet	Weather Conditions
10/10/2016	17:55:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
10/10/2016	18:27:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	None
10/15/2016	16:25:00	PDO	2	Waterbury	3.45	WEST MAIN ST	MEADOW ST	Sideswipe, same direction	Clear	Daylight	Dry	None
10/18/2016	17:18:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Dusk	Dry	None
10/19/2016	15:24:00	PDO	2	Waterbury	0	WEST MAIN ST	unknown	Front to front	Clear	Daylight	Dry	None
10/21/2016	16:39:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
10/22/2016	1:24:00	PDO	2	Waterbury	3.79	WEST MAIN ST	unknown	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	None
10/24/2016	6:18:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
10/24/2016	8:25:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Wet	None
10/26/2016	17:16:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Other	Clear	Daylight	Dry	None
10/26/2016	9:42:00	Possible Inj.	2	Waterbury	0.02	WEST MAIN ST	PARK PL	Angle	Clear	Daylight	Dry	None
10/30/2016	16:30:00	Sus. Minor Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Front to front	Rain	Daylight	Wet	None
10/31/2016	9:34:00	PDO	2	Waterbury	0	WEST MAIN ST	CHURCH ST	Front to rear	Clear	Daylight	Dry	None
11/2/2016	17:35:00	Possible Inj.	2	Waterbury	3.92	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
11/3/2016	15:01:00	PDO	2	Waterbury	3.88	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/3/2016	15:01:00	PDO	2	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
11/3/2016	16:54:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
11/6/2016	19:46:00	Possible Inj.	1	Waterbury	0.96	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Dry	None
11/7/2016	18:31:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
11/9/2016	11:36:00	PDO	2	Waterbury	0	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Rain	Daylight	Wet	None
11/9/2016	12:12:00	Sus. Minor Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Rain	Daylight	Wet	None
11/10/2016	11:51:00	PDO	2	Waterbury	3.45	WEST MAIN ST	MEADOW ST	Angle	Clear	Daylight	Dry	None
11/13/2016	11:37:00	PDO	2	Waterbury	3.72	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/14/2016	17:53:00	PDO	2	Waterbury	3.66	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
11/16/2016	19:26:00	PDO	2	Waterbury	3.69	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None

11/23/2016	19:12:00	Possible Inj.	3	Waterbury	0.93	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
11/23/2016	14:14:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Unknown	Clear	Daylight	Dry	None
11/27/2016	2:46:00	PDO	2	Waterbury	0.9	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Dark-Lighted	Dry	None
11/28/2016	13:12:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
12/1/2016	8:35:00	PDO	2	Waterbury	0.03	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Wet	None
12/1/2016	8:31:00	Sus. Minor Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
12/6/2016	11:59:00	PDO	2	Waterbury	0.02	WEST MAIN ST	EAST MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
12/6/2016	16:46:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
12/13/2016	12:57:00	PDO	1	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Fixed Obj.	Clear	Daylight	Dry	None
12/13/2016	17:14:00	Possible Inj.	2	Waterbury	3.92	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
12/14/2016	11:03:00	PDO	1	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Daylight	Dry	None
12/14/2016	13:39:00	PDO	2	Waterbury	0.98	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
12/16/2016	15:02:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Daylight	Dry	None
12/17/2016	4:33:00	PDO	1	Waterbury	0.04	WEST MAIN ST	NORTH MAIN ST	Not Applicable	Snow	Dark-Lighted	Snow	Weather Conditions
12/20/2016	12:54:00	PDO	3	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Front to rear	Clear	Daylight	Dry	None
12/22/2016	18:27:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Clear	Dark-Lighted	Dry	None
12/22/2016	12:42:00	Possible Inj.	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/23/2016	8:51:00	PDO	2	Waterbury	0.13	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
12/24/2016	2:18:00	PDO	2	Waterbury	0.21	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Not Lighted	Dry	None
12/30/2016	20:35:00	PDO	1	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Fixed Obj.	Clear	Dark-Lighted	Dry	None
1/1/2017	2:58:00	PDO	2	Waterbury	0.04	WEST MAIN ST	SPERRY ST	Angle	Freezing Rain	Dark-Lighted	Wet	None
1/7/2017	0:47:00	PDO	2	Waterbury	0.08	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
1/14/2017	16:31:00	PDO	2	Waterbury	99151	WEST MAIN ST	THOMASTON AVE	Rear to rear	Clear	Dark-Lighted	Dry	None
1/21/2017	10:04:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Sideswipe, same direction	Clear	Daylight	Dry	None
1/24/2017	18:40:00	PDO	2	Waterbury	3.63	WEST MAIN ST	unknown	Angle	Rain	Dark-Lighted	Wet	None
1/25/2017	15:14:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
1/26/2017	19:40:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Dark-Lighted	Dry	None
1/27/2017	14:45:00	PDO	2	Waterbury	0.06	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
1/30/2017	15:51:00	PDO	2	Waterbury	0.06	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/30/2017	12:45:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
2/2/2017	15:09:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
2/4/2017	7:35:00	PDO	1	Waterbury	0	WEST MAIN ST	WILLOW ST	Not Applicable	Clear	Daylight	Dry	Glare
2/4/2017	3:58:00	Sus. Minor Inj.	2	Waterbury	3.45	WEST MAIN ST	MEADOW ST	Front to front	Clear	Dark-Lighted	Dry	None
2/5/2017	13:06:00	PDO	2	Waterbury	0	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
2/7/2017	9:30:00	PDO	2	Waterbury	3.6	WEST MAIN ST	THOMASTON AVE	Other	Rain	Daylight	Wet	None
2/8/2017	15:41:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Daylight	Dry	None
2/10/2017	8:54:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Snow	None
2/14/2017	5:21:00	PDO	2	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Front to front	Clear	Dark-Lighted	Dry	None
2/16/2017	1:01:00	PDO	1	Waterbury	3.76	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Ice / Frost	None
2/16/2017	19:15:00	PDO	2	Waterbury	0.32	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Unknown Lighting	Dry	None
2/17/2017	11:30:00	PDO	2	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
2/18/2017	19:37:00	Possible Inj.	3	Waterbury	0.06	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Wet	None
2/19/2017	7:45:00	PDO	1	Waterbury	0	WEST MAIN ST	WILLOW ST	Fixed Obj.	Clear	Daylight	Dry	None
2/23/2017	15:45:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
2/24/2017	18:07:00	PDO	2	Waterbury	0.02	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
2/24/2017	18:59:00	PDO	2	Waterbury	3.71	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
2/25/2017	14:56:00	PDO	2	Waterbury	0.01	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
2/28/2017	14:17:00	PDO	2	Waterbury	0.54	WEST MAIN ST	WILLOW ST	Other	Clear	Daylight	Dry	None
3/2/2017	11:48:00	PDO	2	Waterbury	3.6	WEST MAIN ST	MEADOW ST	Front to rear	Clear	Daylight	Dry	None
3/2/2017	13:00:00	PDO	2	Waterbury	0.22	WEST MAIN ST	SOUTH MAIN ST	Angle	Clear	Daylight	Dry	None
3/2/2017	11:10:00	PDO	2	Waterbury	0.02	WEST MAIN ST	unknown	Rear to rear	Clear	Daylight	Dry	None
3/3/2017	15:03:00	PDO	2	Waterbury	0.84	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
3/3/2017	17:30:00	Possible Inj.	2	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
3/6/2017	10:39:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	SOUTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
3/9/2017	12:57:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Angle	Clear	Daylight	Dry	None
3/10/2017	19:27:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Dark-Lighted	Sand	None

3/15/2017	20:25:00	PDO	2	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Dark-Lighted	Wet	None
3/17/2017	0:12:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Front to rear	Clear	Dark-Lighted	Ice / Frost	Weather Conditions
3/21/2017	8:56:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
3/25/2017	23:34:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
3/27/2017	8:36:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Daylight	Wet	None
3/30/2017	10:09:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
4/6/2017	17:40:00	PDO	2	Waterbury	0.01	WEST MAIN ST	WILLOW ST	Sideswipe, same direction	Rain	Daylight	Wet	None
4/6/2017	17:52:00	Possible Inj.	3	Waterbury	3.88	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	None
4/6/2017	16:11:00	Possible Inj.	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Daylight	Wet	None
4/6/2017	16:38:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
4/6/2017	17:52:00	Possible Inj.	3	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
4/7/2017	14:09:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Cloudy	Daylight	Dry	None
4/12/2017	18:11:00	Possible Inj.	2	Waterbury	0.14	WEST MAIN ST	CENTRAL AVE	Front to rear	Clear	Daylight	Dry	None
4/13/2017	18:35:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
4/17/2017	13:07:00	PDO	1	Waterbury	0.04	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	None
4/20/2017	12:54:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
4/20/2017	12:54:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
4/21/2017	8:05:00	Sus. Serious Inj.	1	Waterbury	0.13	WEST MAIN ST	LEAVENWORTH ST	Not Applicable	Rain	Daylight	Wet	None
4/27/2017	9:55:00	PDO	2	Waterbury	0.02	WEST MAIN ST	PARK PL	Sideswipe, same direction	Clear	Daylight	Dry	None
4/27/2017	17:16:00	Possible Inj.	2	Waterbury	3.73	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
4/29/2017	2:35:00	PDO	2	Waterbury	3.7	WEST MAIN ST	FRENCH ST	Front to front	Clear	Dark-Lighted	Dry	None
5/4/2017	17:56:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/11/2017	21:19:00	Possible Inj.	1	Waterbury	0	WEST MAIN ST	CENTRAL AVE	Not Applicable	Clear	Dark-Not Lighted	Dry	None
5/15/2017	9:46:00	PDO	2	Waterbury	3.6	WEST MAIN ST	THOMASTON AVE	Angle	Cloudy	Daylight	Dry	None
5/16/2017	14:40:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Angle	Clear	Daylight	Dry	None
5/16/2017	8:16:00	PDO	2	Waterbury	0.04	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
5/16/2017	13:50:00	Possible Inj.	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
5/18/2017	0:05:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Dark-Not Lighted	Dry	None
5/19/2017	15:20:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Angle	Clear	Daylight	Dry	None
5/24/2017	15:20:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
5/26/2017	15:42:00	Possible Inj.	1	Waterbury	3.7	WEST MAIN ST	FRENCH ST	Not Applicable	Clear	Daylight	Dry	None
6/1/2017	12:01:00	PDO	2	Waterbury	0.32	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/1/2017	16:58:00	Possible Inj.	2	Waterbury	0.9	WEST MAIN ST	RIVERSIDE ST NB	Sideswipe, same direction	Clear	Daylight	Dry	None
6/2/2017	15:05:00	PDO	2	Waterbury	0.88	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
6/2/2017	15:05:00	PDO	2	Waterbury	0.88	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/6/2017	14:29:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Rain	Daylight	Wet	None
6/9/2017	12:20:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
6/13/2017	18:27:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
6/16/2017	21:41:00	PDO	2	Waterbury	0.03	WEST MAIN ST	unknown	Sideswipe, same direction	Rain	Dark-Lighted	Wet	None
6/16/2017	6:35:00	PDO	1	Waterbury	0	WEST MAIN ST	unknown	Pedestrian	Clear	Daylight	Dry	None
6/16/2017	8:33:00	PDO	2	Waterbury	3.6	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
6/24/2017	11:46:00	PDO	2	Waterbury	3.57	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/24/2017	15:16:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
7/2/2017	15:10:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
7/5/2017	16:58:00	PDO	1	Waterbury	0.01	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Daylight	Dry	None
7/7/2017	11:23:00	Possible Inj.	2	Waterbury	3.74	WEST MAIN ST	GILBERT ST	Angle	Rain	Daylight	Wet	None
7/8/2017	4:26:00	PDO	1	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Dark-Lighted	Dry	None
7/9/2017	2:42:00	PDO	2	Waterbury	3.72	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
7/9/2017	20:15:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
7/10/2017	15:44:00	PDO	2	Waterbury	3.45	WEST MAIN ST	MEADOW ST	Front to rear	Clear	Daylight	Dry	None
7/16/2017	19:13:00	PDO	1	Waterbury		WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Daylight	Dry	None
7/26/2017	8:18:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
7/26/2017	15:36:00	PDO	2	Waterbury	3.6	WEST MAIN ST	MEADOW ST	Front to rear	Clear	Daylight	Dry	None
7/28/2017	12:28:00	PDO	2	Waterbury	3.86	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
7/31/2017	17:38:00	PDO	2	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
8/2/2017	14:35:00	PDO	2	Waterbury	3.6	WEST MAIN ST	MEADOW ST	Angle	Clear	Daylight	Dry	None

8/5/2017	12:32:00	PDO	2	Waterbury	0.15	WEST MAIN ST	unknown	Sideswipe, same direction	Rain	Daylight	Wet	None
8/12/2017	11:37:00	Sus. Minor Inj.	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
8/16/2017	1:13:00	PDO	2	Waterbury	0.01	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
8/16/2017	1:19:00	Possible Inj.	1	Waterbury	0	WEST MAIN ST	CHURCH ST	Not Applicable	Clear	Dark-Lighted	Dry	None
8/20/2017	2:20:00	Sus. Minor Inj.	1	Waterbury	0	WEST MAIN ST	MEADOW ST	Not Applicable	Clear	Dark-Lighted	Dry	None
8/21/2017	15:18:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/21/2017	19:24:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/22/2017	16:23:00	Possible Inj.	2	Waterbury	3.63	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/25/2017	15:28:00	PDO	2	Waterbury	3.91	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
8/26/2017	14:36:00	Possible Inj.	2	Waterbury	3.72	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
8/28/2017	10:47:00	Sus. Minor Inj.	1	Waterbury	0.2	WEST MAIN ST	SOUTH MAIN ST	Not Applicable	Clear	Daylight	Dry	None
8/31/2017	15:43:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
9/1/2017	13:45:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
9/1/2017	21:01:00	Sus. Minor Inj.	2	Waterbury	0.71	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Dark-Lighted	Dry	None
9/5/2017	19:22:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Other	Rain	Dark-Lighted	Wet	None
9/10/2017	17:44:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
9/15/2017	16:24:00	PDO	2	Waterbury	3.16	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
9/15/2017	8:19:00	Sus. Minor Inj.	3	Waterbury	0	WEST MAIN ST	CHURCH ST	Other	Clear	Daylight	Dry	None
9/18/2017	9:25:00	PDO	2	Waterbury	3.62	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
9/18/2017	16:03:00	Sus. Minor Inj.	2	Waterbury	3.58	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
9/19/2017	10:15:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Sideswipe, same direction	Clear	Daylight	Dry	None
9/19/2017	7:55:00	PDO	2	Waterbury	3.24	WEST MAIN ST	LEAVENWORTH ST	Sideswipe, same direction	Cloudy	Daylight	Dry	None
9/20/2017	11:45:00	Sus. Minor Inj.	2	Waterbury	0.15	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
9/21/2017	8:45:00	Possible Inj.	2	Waterbury	3.71	WEST MAIN ST	unknown	Sideswipe, opposite direction	Cloudy	Daylight	Dry	None
9/25/2017	21:01:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
9/26/2017	15:15:00	PDO	2	Waterbury	0.2	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
9/27/2017	9:46:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Rear to side	Clear	Daylight	Dry	None
9/28/2017	18:43:00	Possible Inj.	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Angle	Clear	Dusk	Dry	None
10/1/2017	7:46:00	PDO	2	Waterbury	3.56	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
10/5/2017	12:57:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Clear	Daylight	Dry	None
10/6/2017	17:05:00	PDO	2	Waterbury	3.41	WEST MAIN ST	MEADOW ST	Front to rear	Clear	Daylight	Dry	None
10/10/2017	17:12:00	PDO	2	Waterbury	3.59	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/13/2017	4:42:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Angle	Clear	Dark-Lighted	Dry	None
10/13/2017	14:57:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
10/13/2017	19:16:00	Sus. Minor Inj.	2	Waterbury	0.01	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
10/15/2017	13:54:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
10/17/2017	11:12:00	Possible Inj.	2	Waterbury	3.88	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
10/17/2017	11:12:00	Possible Inj.	2	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/18/2017	13:25:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
10/19/2017	18:29:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
10/21/2017	7:15:00	PDO	3	Waterbury	0.03	WEST MAIN ST	unknown	Other	Clear	Daylight	Dry	None
10/21/2017	22:44:00	Possible Inj.	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
10/23/2017	13:50:00	PDO	2	Waterbury	3.66	WEST MAIN ST	unknown	Angle	Cloudy	Daylight	Dry	None
10/23/2017	13:50:00	PDO	2	Waterbury	3.66	WEST MAIN ST	THOMASTON AVE	Angle	Cloudy	Daylight	Dry	None
10/26/2017	10:51:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Front to rear	Rain	Daylight	Wet	Weather Conditions
10/26/2017	10:36:00	PDO	2	Waterbury	0.95	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
10/26/2017	10:36:00	PDO	2	Waterbury	0.95	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
10/27/2017	16:57:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Clear	Daylight	Dry	None
10/28/2017	9:14:00	PDO	1	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Daylight	Dry	None
10/29/2017	2:21:00	PDO	2	Waterbury	3.36	WEST MAIN ST	unknown	Front to front	Freezing Rain	Dark-Lighted	Wet	None
10/31/2017	11:48:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
11/1/2017	14:29:00	PDO	2	Waterbury	3.88	WEST MAIN ST	unknown	Other	Rain	Daylight	Wet	None
11/1/2017	14:29:00	PDO	2	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Other	Rain	Daylight	Wet	None
11/4/2017	10:39:00	PDO	1	Waterbury	0.13	WEST MAIN ST	LEAVENWORTH ST	Not Applicable	Clear	Daylight	Dry	None
11/12/2017	14:28:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
11/16/2017	15:06:00	PDO	2	Waterbury	0.16	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Wet	None

11/17/2017	15:06:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Daylight	Dry	None
11/17/2017	7:32:00	PDO	1	Waterbury	0.08	WEST MAIN ST	STATE ST	Fixed Obj.	Clear	Daylight	Dry	None
11/17/2017	11:12:00	PDO	2	Waterbury	3.71	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/20/2017	11:33:00	PDO	2	Waterbury	0.23	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/24/2017	17:18:00	PDO	2	Waterbury	0.23	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
11/26/2017	16:15:00	Fatal (Kill)	1	Waterbury	3.71	WEST MAIN ST	unknown	Not Applicable	Clear	Daylight	Dry	None
12/2/2017	3:14:00	PDO	1	Waterbury	0	WEST MAIN ST	WILLOW ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
12/4/2017	14:23:00	PDO	2	Waterbury	0.14	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
12/8/2017	19:00:00	Possible Inj.	2	Waterbury	0.62	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
12/8/2017	19:00:00	Possible Inj.	2	Waterbury	0.62	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
12/10/2017	19:05:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Angle	Clear	Dark-Lighted	Ice / Frost	None
12/11/2017	16:50:00	PDO	1	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Not Applicable	Clear	Daylight	Dry	None
12/11/2017	15:33:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Wet	None
12/20/2017	22:59:00	PDO	2	Waterbury	0.11	WEST MAIN ST	PROSPECT ST	Front to front	Clear	Dark-Lighted	Dry	None
12/21/2017	16:39:00	PDO	2	Waterbury	0.31	WEST MAIN ST	EAST MAIN ST	Front to rear	Clear	Daylight	Dry	None
12/22/2017	14:29:00	PDO	2	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Angle	Clear	Daylight	Dry	None
12/22/2017	18:02:00	PDO	2	Waterbury	0.2	WEST MAIN ST	unknown	Angle	Rain	Dark-Lighted	Wet	None
12/23/2017	14:22:00	PDO	2	Waterbury	0	WEST MAIN ST	SOUTH MAIN ST	Angle	Clear	Daylight	Dry	Visual Obstruction(s)
12/24/2017	9:36:00	PDO	2	Waterbury	0.1	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
1/1/2018	16:33:00	PDO	2	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
1/1/2018	1:16:00	Possible Inj.	2	Waterbury	3.74	WEST MAIN ST	GILBERT ST	Angle	Clear	Dark-Lighted	Wet	None
1/4/2018	17:13:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Blowing Snow	Dark-Not Lighted	Snow	None
1/5/2018	13:01:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Slush	Other
1/5/2018	15:40:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Snow	None
1/5/2018	16:38:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Snow	Daylight	Snow	None
1/6/2018	15:51:00	Sus. Minor Inj.	2	Waterbury	3.78	WEST MAIN ST	unknown	Angle	Snow	Dark-Lighted	Ice / Frost	None
1/7/2018	7:18:00	PDO	2	Waterbury	0.09	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Snow	None
1/8/2018	9:38:00	PDO	2	Waterbury	0.06	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Wet	None
1/9/2018	15:12:00	PDO	2	Waterbury	0.01	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
1/11/2018	9:43:00	PDO	2	Waterbury	0.15	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/12/2018	21:11:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Rain	Dark-Lighted	Wet	None
1/13/2018	16:32:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Cloudy	Daylight	Dry	None
1/18/2018	22:55:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
1/18/2018	14:48:00	PDO	2	Waterbury	3.9	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
1/18/2018	14:48:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
1/19/2018	14:57:00	PDO	2	Waterbury	3.91	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/19/2018	14:57:00	PDO	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
1/21/2018	11:15:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Angle	Clear	Daylight	Dry	None
1/21/2018	15:33:00	PDO	2	Waterbury	3.85	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/22/2018	7:02:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
1/25/2018	16:04:00	PDO	3	Waterbury	0.14	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
1/26/2018	13:43:00	PDO	2	Waterbury	3.64	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
1/30/2018	11:05:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Sideswipe, same direction	Snow	Daylight	Snow	None
1/31/2018	16:20:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
1/31/2018	16:20:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
2/2/2018	20:44:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Dark-Lighted	Dry	None
2/3/2018	8:12:00	PDO	1	Waterbury	3.7	WEST MAIN ST	FRENCH ST	Fixed Obj.	Clear	Daylight	Dry	None
2/5/2018	15:55:00	PDO	2	Waterbury	0.69	WEST MAIN ST	RIVERSIDE ST NB	Front to rear	Clear	Daylight	Dry	None
2/5/2018	17:14:00	PDO	2	Waterbury	0.97	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
2/5/2018	15:19:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Front to rear	Clear	Daylight	Dry	None
2/10/2018	8:07:00	PDO	2	Waterbury	3.77	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Wet	None
2/10/2018	21:36:00	Sus. Minor Inj.	1	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Not Applicable	Rain	Dark-Not Lighted	Wet	None
2/15/2018	16:05:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
2/19/2018	12:58:00	PDO	2	Waterbury	3.65	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
2/19/2018	16:31:00	Possible Inj.	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Dusk	Wet	None
2/21/2018	11:20:00	PDO	2	Waterbury	0.01	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None

2/21/2018	19:57:00	PDO	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Dark-Lighted	Dry	None
2/27/2018	14:46:00	Possible Inj.	2	Waterbury	0.04	WEST MAIN ST	SPERRY ST	Front to rear	Clear	Daylight	Dry	None
3/2/2018	13:15:00	PDO	2	Waterbury	0.31	WEST MAIN ST	unknown	Other	Rain	Daylight	Wet	None
3/3/2018	19:42:00	PDO	2	Waterbury	3.68	WEST MAIN ST	JUDD ST	Front to rear	Clear	Dark-Not Lighted	Dry	None
3/10/2018	19:06:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Dark-Lighted	Dry	None
3/12/2018	9:46:00	PDO	2	Waterbury	0.02	WEST MAIN ST	CENTRAL AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
3/14/2018	13:08:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Daylight	Dry	None
3/14/2018	17:21:00	PDO	2	Waterbury	3.72	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
3/16/2018	8:18:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
3/16/2018	19:39:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Dark-Lighted	Dry	None
3/19/2018	21:10:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Dark-Lighted	Dry	None
3/24/2018	10:19:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
3/27/2018	17:47:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
3/29/2018	16:53:00	PDO	1	Waterbury	0	WEST MAIN ST	CENTRAL AVE	Not Applicable	Clear	Daylight	Dry	None
4/1/2018	14:34:00	Sus. Minor Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
4/2/2018	12:59:00	PDO	2	Waterbury	3.92	WEST MAIN ST	unknown	Sideswipe, same direction	Cloudy	Daylight	Wet	None
4/2/2018	12:59:00	PDO	2	Waterbury	3.92	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Cloudy	Daylight	Wet	None
4/3/2018	13:01:00	PDO	2	Waterbury	0	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Rain	Daylight	Wet	None
4/4/2018	11:19:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Angle	Rain	Daylight	Wet	None
4/7/2018	18:38:00	PDO	2	Waterbury	3.84	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
4/8/2018	1:49:00	PDO	1	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
4/8/2018	7:04:00	PDO	3	Waterbury	3.82	WEST MAIN ST	unknown	Other	Clear	Daylight	Ice / Frost	None
4/9/2018	10:41:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
4/11/2018	14:49:00	PDO	3	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Sideswipe, opposite direction	Clear	Daylight	Dry	None
4/15/2018	1:21:00	PDO	4	Waterbury	3.72	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
4/16/2018	8:20:00	Possible Inj.	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	Weather Conditions
4/18/2018	8:15:00	Possible Inj.	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
4/20/2018	12:26:00	Possible Inj.	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
4/25/2018	12:10:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Rain	Daylight	Wet	None
4/26/2018	17:12:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/1/2018	10:14:00	PDO	2	Waterbury	0.01	WEST MAIN ST	CHURCH ST	Front to rear	Clear	Daylight	Dry	None
5/1/2018	23:09:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
5/3/2018	16:39:00	PDO	2	Waterbury	0.02	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	None
5/3/2018	17:54:00	PDO	2	Waterbury	3.73	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	None
5/4/2018	22:21:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
5/7/2018	16:40:00	PDO	2	Waterbury	0.01	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
5/7/2018	12:03:00	Sus. Minor Inj.	2	Waterbury	0.04	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
5/8/2018	20:46:00	PDO	2	Waterbury	3.7	WEST MAIN ST	FRENCH ST	Angle	Clear	Dark-Lighted	Dry	None
5/8/2018	12:21:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
5/11/2018	20:12:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
5/15/2018	13:41:00	PDO	2	Waterbury	0.19	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
5/16/2018	2:04:00	Sus. Minor Inj.	1	Waterbury	3.66	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Dry	None
5/17/2018	18:56:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
5/17/2018	18:56:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
5/19/2018	16:06:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	None
5/19/2018	11:54:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Daylight	Wet	None
5/19/2018	16:06:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
5/26/2018	21:34:00	PDO	2	Waterbury	0.08	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
5/26/2018	15:20:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/28/2018	13:55:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Sideswipe, same direction	Clear	Daylight	Dry	None
5/29/2018	16:57:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/2/2018	1:07:00	PDO	2	Waterbury	3.74	WEST MAIN ST	GILBERT ST	Angle	Fog, Smog, Smoke	Dark-Lighted	Dry	None
6/3/2018	4:16:00	Sus. Minor Inj.	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Angle	Clear	Dark-Lighted	Dry	None
6/3/2018	22:51:00	Sus. Minor Inj.	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to front	Clear	Dark-Lighted	Dry	None
6/5/2018	12:00:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
6/5/2018	19:48:00	Sus. Minor Inj.	2	Waterbury	0.17	WEST MAIN ST	unknown	Front to front	Clear	Dusk	Dry	None

6/7/2018	14:27:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/8/2018	14:22:00	Sus. Minor Inj.	1	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Pedestrian	Clear	Daylight	Dry	None
6/10/2018	14:58:00	Sus. Minor Inj.	2	Waterbury	0.95	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/13/2018	12:59:00	PDO	2	Waterbury	0.31	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/14/2018	9:28:00	PDO	2	Waterbury	0.03	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/18/2018	13:06:00	Sus. Minor Inj.	2	Waterbury	3.74	WEST MAIN ST	GILBERT ST	Other	Clear	Daylight	Dry	None
6/21/2018	14:46:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/27/2018	9:58:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Cloudy	Daylight	Dry	None
6/28/2018	11:19:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
6/29/2018	10:33:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
7/2/2018	15:16:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
7/5/2018	9:54:00	PDO	2	Waterbury	0.03	WEST MAIN ST	EAST MAIN ST	Front to rear	Clear	Daylight	Dry	None
7/9/2018	17:35:00	PDO	1	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Pedestrian	Clear	Daylight	Dry	None
7/20/2018	16:21:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
7/20/2018	16:21:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
7/24/2018	16:48:00	Sus. Serious Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
7/25/2018	20:33:00	PDO	2	Waterbury	3.62	WEST MAIN ST	unknown	Front to rear	Rain	Dark-Lighted	Wet	None
7/25/2018	15:18:00	Sus. Minor Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Rain	Daylight	Wet	None
7/27/2018	14:20:00	PDO	2	Waterbury	0.19	WEST MAIN ST	unknown	Angle	Cloudy	Daylight	Dry	None
7/29/2018	14:12:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Front to rear	Clear	Daylight	Dry	None
8/1/2018	14:36:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Sideswipe, same direction	Rain	Daylight	Wet	None
8/1/2018	10:34:00	PDO	2	Waterbury	0.24	WEST MAIN ST	unknown	Sideswipe, same direction	Cloudy	Daylight	Dry	None
8/4/2018	15:13:00	PDO	2	Waterbury	3.62	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
8/5/2018	12:43:00	Possible Inj.	3	Waterbury	3.73	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
8/8/2018	21:38:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Dark-Lighted	Dry	None
8/8/2018	13:23:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
8/9/2018	19:30:00	PDO	2	Waterbury	0.11	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
8/14/2018	9:24:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Wet	None
8/15/2018	13:18:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Angle	Clear	Daylight	Dry	None
8/15/2018	0:15:00	PDO	2	Waterbury	0.15	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
8/18/2018	22:01:00	PDO	2	Waterbury	0.18	WEST MAIN ST	SOUTH MAIN ST	Front to rear	Clear	Dark-Lighted	Dry	None
8/21/2018	11:38:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
8/22/2018	18:31:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/28/2018	6:36:00	PDO	2	Waterbury	0.24	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
8/30/2018	16:11:00	PDO	2	Waterbury	0.71	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Daylight	Dry	None
9/1/2018	20:46:00	Fatal (Kill)	1	Waterbury	3.72	WEST MAIN ST	unknown	Pedestrian	Clear	Dark-Lighted	Dry	None
9/2/2018	22:26:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
9/5/2018	12:09:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
9/5/2018	12:09:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/8/2018	21:03:00	Possible Inj.	2	Waterbury	3.68	WEST MAIN ST	JUDD ST	Front to rear	Clear	Dark-Lighted	Dry	None
9/11/2018	9:44:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/11/2018	14:39:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/12/2018	14:56:00	PDO	2	Waterbury	3.86	WEST MAIN ST	unknown	Front to front	Rain	Daylight	Wet	Weather Conditions
9/12/2018	14:56:00	PDO	2	Waterbury	3.86	WEST MAIN ST	THOMASTON AVE	Front to front	Rain	Daylight	Wet	Weather Conditions
9/13/2018	9:53:00	PDO	1	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Fixed Obj.	Cloudy	Daylight	Dry	None
9/13/2018	14:49:00	PDO	1	Waterbury	0.08	WEST MAIN ST	STATE ST	Fixed Obj.	Clear	Daylight	Dry	None
9/17/2018	14:31:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Front to rear	Clear	Daylight	Dry	None
9/19/2018	12:54:00	Possible Inj.	3	Waterbury	0.02	WEST MAIN ST	EAST MAIN ST	Other	Clear	Daylight	Dry	None
9/20/2018	15:47:00	PDO	2	Waterbury		WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/24/2018	9:13:00	PDO	2	Waterbury	0	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
9/24/2018	12:13:00	PDO	2	Waterbury	0.22	WEST MAIN ST	SOUTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
9/25/2018	8:10:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Rear to rear	Rain	Daylight	Wet	Weather Conditions
9/28/2018	22:07:00	Sus. Minor Inj.	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Angle	Clear	Dark-Not Lighted	Dry	None
10/1/2018	11:02:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
10/1/2018	11:02:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
10/9/2018	1:34:00	PDO	1	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Fixed Obj.	Fog, Smog, Smoke	Dark-Lighted	Wet	Weather Conditions

10/10/2018	16:54:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/11/2018	10:20:00	PDO	2	Waterbury	0	WEST MAIN ST	SOUTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
10/13/2018	14:19:00	PDO	1	Waterbury	0.01	WEST MAIN ST	EAST MAIN ST	Not Applicable	Cloudy	Daylight	Dry	None
10/15/2018	13:06:00	PDO	2	Waterbury	3.62	WEST MAIN ST	unknown	Sideswipe, same direction	Cloudy	Daylight	Wet	None
10/15/2018	9:22:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Rain	Daylight	Wet	None
10/25/2018	14:17:00	PDO	2	Waterbury	3.86	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
10/25/2018	8:02:00	Possible Inj.	1	Waterbury	0.02	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	Glare
10/25/2018	14:17:00	PDO	2	Waterbury	3.86	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/27/2018	18:56:00	PDO	2	Waterbury	3.92	WEST MAIN ST	unknown	Angle	Rain	Dark-Lighted	Wet	None
10/27/2018	18:56:00	PDO	2	Waterbury	3.92	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Dark-Lighted	Wet	None
10/29/2018	14:24:00	Sus. Minor Inj.	2	Waterbury	3.75	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
10/29/2018	17:15:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
11/1/2018	10:44:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Clear	Daylight	Dry	None
11/2/2018	16:57:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Wet	None
11/3/2018	5:11:00	Possible Inj.	1	Waterbury	3.86	WEST MAIN ST	unknown	Fixed Obj.	Rain	Dark-Lighted	Wet	None
11/3/2018	5:11:00	Possible Inj.	1	Waterbury	3.86	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Rain	Dark-Lighted	Wet	None
11/4/2018	9:27:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
11/5/2018	12:53:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	None
11/5/2018	12:53:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
11/7/2018	14:15:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
11/7/2018	10:26:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
11/8/2018	18:44:00	PDO	2	Waterbury	0.22	WEST MAIN ST	SOUTH MAIN ST	Unknown	Clear	Dark-Lighted	Dry	None
11/13/2018	14:46:00	Sus. Minor Inj.	1	Waterbury	0.14	WEST MAIN ST	CENTRAL AVE	Pedestrian	Clear	Daylight	Dry	None
11/14/2018	20:00:00	PDO	1	Waterbury	0	WEST MAIN ST	SOUTH MAIN ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
11/15/2018	17:08:00	PDO	2	Waterbury	0.16	WEST MAIN ST	unknown	Front to rear	Snow	Dark-Lighted	Snow	None
11/15/2018	13:21:00	Possible Inj.	2	Waterbury	3.92	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
11/17/2018	17:38:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
11/17/2018	20:46:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Wet	None
11/18/2018	18:02:00	Sus. Minor Inj.	1	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Pedestrian	Clear	Dark-Not Lighted	Wet	None
11/19/2018	2:37:00	PDO	2	Waterbury	3.73	WEST MAIN ST	unknown	Unknown	Cloudy	Unknown	Dry	Unknown
11/20/2018	19:25:00	PDO	2	Waterbury	0.02	WEST MAIN ST	EAST MAIN ST	Sideswipe, opposite direction	Clear	Daylight	Dry	None
11/28/2018	14:51:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
11/29/2018	10:39:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Other	Clear	Daylight	Dry	None
11/30/2018	19:07:00	Possible Inj.	3	Waterbury	0.33	WEST MAIN ST	EAST MAIN ST	Angle	Clear	Dark-Lighted	Dry	None
12/1/2018	19:32:00	Possible Inj.	1	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Pedestrian	Rain	Dark-Lighted	Wet	None
12/4/2018	14:38:00	PDO	2	Waterbury	3.7	WEST MAIN ST	FRENCH ST	Angle	Clear	Daylight	Dry	None
12/5/2018	17:45:00	PDO	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Dark-Lighted	Dry	None
12/5/2018	12:50:00	PDO	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
12/12/2018	15:43:00	Possible Inj.	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
12/13/2018	15:13:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Snow	Daylight	Dry	None
12/13/2018	8:13:00	PDO	2	Waterbury	3.73	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
12/16/2018	0:43:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
12/16/2018	21:48:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Dark-Lighted	Wet	None
12/17/2018	21:04:00	Sus. Minor Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to front	Clear	Dark-Lighted	Ice / Frost	None
12/19/2018	16:01:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
12/21/2018	16:26:00	PDO	1	Waterbury	3.68	WEST MAIN ST	JUDD ST	Fixed Obj.	Rain	Dark-Lighted	Wet	None
12/22/2018	14:08:00	Sus. Minor Inj.	2	Waterbury	3.91	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
12/22/2018	14:08:00	Sus. Minor Inj.	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/23/2018	14:19:00	PDO	2	Waterbury	0.97	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
12/25/2018	12:04:00	PDO	1	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Not Applicable	Clear	Daylight	Dry	None
12/27/2018	9:44:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	Glare
12/27/2018	18:36:00	PDO	2	Waterbury	3.65	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
12/27/2018	18:50:00	PDO	3	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
12/28/2018	15:46:00	PDO	1	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Fixed Obj.	Rain	Daylight	Wet	Weather Conditions
12/28/2018	16:57:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
12/28/2018	11:26:00	Possible Inj.	2	Waterbury	0.93	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	None

12/31/2018	15:58:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Cloudy	Daylight	Dry	None
12/31/2018	13:15:00	Sus. Minor Inj.	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
1/1/2019	4:12:00	PDO	2	Waterbury	3.73	WEST MAIN ST	unknown	Rear to side	Rain	Dark-Lighted	Wet	None
1/8/2019	11:44:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Cloudy	Daylight	Wet	None
1/8/2019	15:58:00	PDO	1	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Cloudy	Daylight	Wet	None
1/10/2019	7:26:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
1/14/2019	9:19:00	PDO	2	Waterbury	0.06	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/16/2019	13:29:00	PDO	2	Waterbury	0	WEST MAIN ST	NORTH MAIN ST	Rear to rear	Cloudy	Daylight	Dry	None
1/17/2019	16:38:00	PDO	2	Waterbury	0.02	WEST MAIN ST	CENTRAL AVE	Unknown	Clear	Daylight	Dry	None
1/18/2019	13:16:00	PDO	2	Waterbury	3.68	WEST MAIN ST	JUDD ST	Front to rear	Clear	Daylight	Dry	None
1/20/2019	18:59:00	Possible Inj.	2	Waterbury	3.71	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Ice / Frost	None
1/21/2019	19:12:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Front to rear	Clear	Dark-Lighted	Dry	None
1/22/2019	10:10:00	PDO	2	Waterbury	3.75	WEST MAIN ST	unknown	Angle	Clear	Daylight	Ice / Frost	None
1/28/2019	10:29:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
1/31/2019	13:03:00	PDO	2	Waterbury	0.07	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
1/31/2019	20:15:00	PDO	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Unknown Lighting	Ice / Frost	None
2/1/2019	23:16:00	PDO	2	Waterbury	0.04	WEST MAIN ST	SPERRY ST	Angle	Clear	Dark-Lighted	Dry	None
2/1/2019	17:25:00	PDO	2	Waterbury	0.23	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
2/5/2019	7:54:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Sideswipe, same direction	Clear	Daylight	Dry	None
2/7/2019	15:59:00	PDO	2	Waterbury	3.71	WEST MAIN ST	unknown	Sideswipe, same direction	Cloudy	Daylight	Wet	None
2/13/2019	6:54:00	PDO	2	Waterbury	0.11	WEST MAIN ST	PROSPECT ST	Front to rear	Snow	Dawn	Snow	None
2/14/2019	14:01:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
2/21/2019	16:01:00	PDO	2	Waterbury	3.91	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
2/21/2019	16:01:00	PDO	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
3/2/2019	12:10:00	PDO	2	Waterbury	3.68	WEST MAIN ST	JUDD ST	Sideswipe, same direction	Snow	Daylight	Snow	None
3/2/2019	7:56:00	PDO	2	Waterbury	0.01	WEST MAIN ST	WILLOW ST	Sideswipe, opposite direction	Snow	Daylight	Snow	Weather Conditions
3/2/2019	18:17:00	Possible Inj.	2	Waterbury	3.9	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
3/2/2019	18:17:00	Possible Inj.	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
3/5/2019	16:19:00	PDO	2	Waterbury	3.75	WEST MAIN ST	unknown	Front to front	Clear	Daylight	Dry	Other
3/5/2019	22:44:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
3/8/2019	6:50:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Angle	Clear	Daylight	Dry	None
3/8/2019	8:37:00	Possible Inj.	2	Waterbury	3.75	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
3/9/2019	13:23:00	PDO	2	Waterbury	0.07	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
3/9/2019	14:17:00	PDO	2	Waterbury	3.86	WEST MAIN ST	unknown	Rear to side	Clear	Daylight	Dry	None
3/9/2019	14:17:00	PDO	2	Waterbury	3.86	WEST MAIN ST	THOMASTON AVE	Rear to side	Clear	Daylight	Dry	None
3/10/2019	21:08:00	PDO	2	Waterbury	3.71	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
3/14/2019	12:04:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
3/16/2019	16:36:00	PDO	2	Waterbury	0.06	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
3/17/2019	16:59:00	PDO	2	Waterbury	0.1	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
3/22/2019	11:42:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Front to rear	Cloudy	Daylight	Wet	None
3/23/2019	7:01:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to rear	Freezing Rain	Daylight	Ice / Frost	Weather Conditions
3/24/2019	17:56:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
3/24/2019	20:34:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Dark-Lighted	Dry	None
3/25/2019	10:09:00	Sus. Minor Inj.	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Sideswipe, opposite direction	Clear	Daylight	Dry	None
3/27/2019	14:09:00	PDO	2	Waterbury	0	WEST MAIN ST	MEADOW ST	Sideswipe, same direction	Clear	Daylight	Dry	None
3/28/2019	14:59:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Sideswipe, same direction	Clear	Daylight	Dry	None
3/29/2019	8:40:00	PDO	2	Waterbury	3.89	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
3/29/2019	8:40:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
4/1/2019	15:08:00	PDO	2	Waterbury	0.16	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
4/3/2019	1:56:00	PDO	1	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Fixed Obj.	Rain	Dark-Lighted	Wet	Unknown
4/3/2019	16:15:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
4/6/2019	20:35:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
4/10/2019	8:49:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Clear	Daylight	Dry	None
4/14/2019	19:50:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Front to rear	Rain	Dark-Lighted	Wet	None
4/25/2019	17:30:00	PDO	2	Waterbury	0.02	WEST MAIN ST	EAST MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
5/6/2019	13:53:00	Possible Inj.	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None

5/6/2019	14:25:00	PDO	2	Waterbury	0.04	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/7/2019	10:14:00	PDO	1	Waterbury	0.08	WEST MAIN ST	STATE ST	Fixed Obj.	Clear	Daylight	Dry	None
5/7/2019	20:45:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Dark-Lighted	Dry	None
5/8/2019	10:10:00	PDO	2	Waterbury	3.89	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
5/8/2019	10:10:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
5/10/2019	2:37:00	PDO	1	Waterbury	0	WEST MAIN ST	SPERRY ST	Not Applicable	Cloudy	Dark-Lighted	Dry	None
5/12/2019	8:05:00	PDO	2	Waterbury	0.21	WEST MAIN ST	SOUTH MAIN ST	Front to rear	Rain	Daylight	Wet	None
5/12/2019	13:51:00	Sus. Minor Inj.	1	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Rain	Daylight	Wet	None
5/14/2019	10:48:00	PDO	2	Waterbury	3.9	WEST MAIN ST	unknown	Front to rear	Cloudy	Daylight	Dry	None
5/14/2019	12:09:00	PDO	2	Waterbury	0.09	WEST MAIN ST	unknown	Front to rear	Cloudy	Daylight	Dry	None
5/14/2019	10:48:00	PDO	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Front to rear	Cloudy	Daylight	Dry	None
5/15/2019	15:35:00	PDO	2	Waterbury	0	WEST MAIN ST	EAST MAIN ST	Angle	Clear	Daylight	Dry	None
5/16/2019	11:33:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
5/17/2019	15:02:00	PDO	2	Waterbury	0.02	WEST MAIN ST	unknown	Sideswipe, same direction	Rain	Daylight	Wet	None
5/18/2019	2:00:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
5/18/2019	22:01:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
5/19/2019	16:48:00	Sus. Minor Inj.	2	Waterbury	3.6	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
5/20/2019	0:36:00	Possible Inj.	3	Waterbury	3.73	WEST MAIN ST	unknown	Front to rear	Rain	Dark-Lighted	Wet	None
5/23/2019	16:53:00	PDO	2	Waterbury	0.19	WEST MAIN ST	SOUTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
5/23/2019	11:17:00	PDO	2	Waterbury	3.58	WEST MAIN ST	unknown	Front to rear	Cloudy	Daylight	Dry	None
5/25/2019	10:18:00	PDO	2	Waterbury	3.91	WEST MAIN ST	unknown	Front to front	Clear	Daylight	Dry	None
5/25/2019	10:18:00	PDO	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Front to front	Clear	Daylight	Dry	None
5/26/2019	0:31:00	PDO	1	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Fixed Obj.	Cloudy	Dark-Lighted	Dry	None
5/26/2019	13:22:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/28/2019	12:06:00	PDO	2	Waterbury	0.03	WEST MAIN ST	WILLOW ST	Sideswipe, same direction	Rain	Daylight	Wet	None
5/31/2019	12:55:00	Sus. Minor Inj.	1	Waterbury	3.6	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	None
5/31/2019	14:50:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
6/4/2019	9:16:00	PDO	2	Waterbury	3.84	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/4/2019	14:51:00	PDO	2	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
6/5/2019	8:45:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/6/2019	23:21:00	Sus. Serious Inj.	1	Waterbury	3.62	WEST MAIN ST	unknown	Pedestrian	Clear	Dark-Lighted	Dry	None
6/9/2019	12:00:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
6/9/2019	20:44:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Angle	Clear	Dark-Not Lighted	Dry	None
6/12/2019	13:46:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/12/2019	13:46:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
6/14/2019	8:15:00	Possible Inj.	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
6/16/2019	22:12:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Angle	Clear	Dark-Unknown Lighting	Wet	None
6/16/2019	15:45:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
6/17/2019	16:32:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
6/21/2019	14:53:00	PDO	2	Waterbury	0.01	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
6/24/2019	13:11:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Dry	None
7/1/2019	8:56:00	Possible Inj.	3	Waterbury	0.16	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
7/2/2019	17:39:00	PDO	2	Waterbury	0.15	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
7/3/2019	6:24:00	PDO	1	Waterbury	3.77	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	None
7/13/2019	12:58:00	Possible Inj.	2	Waterbury	0.05	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
7/14/2019	21:40:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Cloudy	Dark-Lighted	Dry	None
7/14/2019	21:00:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Not Lighted	Dry	None
7/16/2019	16:08:00	Possible Inj.	2	Waterbury	3.72	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
7/16/2019	16:49:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
7/17/2019	12:40:00	PDO	2	Waterbury	3.58	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
7/25/2019	7:29:00	PDO	2	Waterbury	0.12	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
7/31/2019	18:40:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
8/2/2019	16:37:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
8/6/2019	20:15:00	Sus. Minor Inj.	3	Waterbury	0.04	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Not Lighted	Dry	None
8/10/2019	17:04:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Other	Clear	Daylight	Dry	None
8/12/2019	17:09:00	PDO	1	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Fixed Obj.	Clear	Daylight	Dry	None

8/13/2019	13:07:00	Possible Inj.	3	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Front to rear	Cloudy	Daylight	Wet	None
8/19/2019	17:14:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Front to front	Clear	Daylight	Dry	None
8/19/2019	17:14:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Front to front	Clear	Daylight	Dry	None
8/21/2019	11:00:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
8/22/2019	13:35:00	PDO	2	Waterbury	0.13	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
8/23/2019	12:18:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/2/2019	16:35:00	PDO	3	Waterbury	0.16	WEST MAIN ST	NORTH MAIN ST	Rear to rear	Rain	Daylight	Wet	None
9/3/2019	8:30:00	PDO	2	Waterbury	0.15	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
9/5/2019	17:07:00	Possible Inj.	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Angle	Clear	Daylight	Dry	None
9/5/2019	12:10:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/9/2019	15:39:00	PDO	2	Waterbury	3.88	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
9/9/2019	17:09:00	PDO	2	Waterbury	3.72	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
9/9/2019	15:39:00	PDO	2	Waterbury	3.88	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/14/2019	21:16:00	Sus. Minor Inj.	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to rear	Rain	Dark-Lighted	Wet	None
9/16/2019	14:47:00	PDO	2	Waterbury	0.14	WEST MAIN ST	CENTRAL AVE	Front to rear	Clear	Daylight	Dry	None
9/19/2019	9:45:00	PDO	2	Waterbury	0.02	WEST MAIN ST	EAST MAIN ST	Rear to side	Clear	Daylight	Dry	None
9/23/2019	11:39:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
9/26/2019	12:50:00	PDO	2	Waterbury	0.11	WEST MAIN ST	PROSPECT ST	Sideswipe, same direction	Clear	Daylight	Dry	None
9/26/2019	15:54:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Rain	Daylight	Wet	None
9/28/2019	1:24:00	PDO	1	Waterbury	0.19	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Dry	None
10/1/2019	17:03:00	Sus. Minor Inj.	2	Waterbury	0.16	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	Glare
10/3/2019	16:14:00	PDO	2	Waterbury	0.01	WEST MAIN ST	NORTH MAIN ST	Front to rear	Rain	Daylight	Wet	None
10/4/2019	11:19:00	PDO	2	Waterbury	3.81	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	Unknown
10/6/2019	19:13:00	PDO	2	Waterbury	0.13	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Rain	Dark-Lighted	Wet	None
10/7/2019	9:26:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
10/7/2019	7:56:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
10/8/2019	15:32:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
10/10/2019	15:33:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/14/2019	8:07:00	PDO	1	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Daylight	Dry	None
10/15/2019	14:11:00	PDO	2	Waterbury	0.23	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
10/19/2019	16:36:00	Sus. Minor Inj.	1	Waterbury	3.6	WEST MAIN ST	unknown	Pedestrian	Clear	Daylight	Dry	None
10/20/2019	1:49:00	Sus. Minor Inj.	1	Waterbury	3.63	WEST MAIN ST	unknown	Pedestrian	Clear	Dark-Lighted	Dry	None
10/24/2019	8:52:00	Sus. Minor Inj.	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
10/26/2019	17:18:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	None
10/26/2019	13:52:00	Possible Inj.	1	Waterbury	3.77	WEST MAIN ST	unknown	Pedestrian	Clear	Daylight	Dry	None
10/28/2019	6:28:00	PDO	1	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Pedestrian	Clear	Dark-Lighted	Dry	None
10/28/2019	15:16:00	PDO	1	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Not Applicable	Clear	Daylight	Dry	None
11/1/2019	12:25:00	PDO	2	Waterbury	0.07	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/2/2019	8:55:00	PDO	2	Waterbury	0.12	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/7/2019	17:09:00	Sus. Minor Inj.	2	Waterbury	3.89	WEST MAIN ST	unknown	Front to rear	Rain	Dark-Lighted	Wet	Weather Conditions
11/7/2019	17:09:00	Sus. Minor Inj.	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Dark-Lighted	Wet	Weather Conditions
11/8/2019	20:36:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	None
11/8/2019	10:56:00	Possible Inj.	2	Waterbury	3.65	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
11/9/2019	13:38:00	PDO	1	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Fixed Obj.	Clear	Daylight	Dry	Visual Obstruction(s)
11/9/2019	8:43:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/9/2019	15:48:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
11/11/2019	15:59:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Front to front	Clear	Daylight	Dry	None
11/13/2019	15:07:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
11/15/2019	9:26:00	PDO	2	Waterbury	0.05	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None
11/16/2019	6:10:00	PDO	1	Waterbury	0.08	WEST MAIN ST	STATE ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
11/19/2019	17:47:00	PDO	3	Waterbury	3.75	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
11/19/2019	19:13:00	Sus. Minor Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Dark-Lighted	Dry	None
11/20/2019	3:45:00	Sus. Minor Inj.	1	Waterbury	3.62	WEST MAIN ST	unknown	Pedestrian	Clear	Dark-Lighted	Dry	None
11/25/2019	0:39:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Unknown	Clear	Dark-Lighted	Wet	None
11/25/2019	6:23:00	Sus. Minor Inj.	1	Waterbury	0.13	WEST MAIN ST	LEAVENWORTH ST	Not Applicable	Clear	Daylight	Dry	None
11/29/2019	12:38:00	PDO	2	Waterbury	3.87	WEST MAIN ST	unknown	Sideswipe, opposite direction	Clear	Daylight	Dry	None

11/29/2019	12:38:00	PDO	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Sideswipe, opposite direction	Clear	Daylight	Dry	None
12/2/2019	20:14:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Other	Snow	Dark-Lighted	Snow	None
12/4/2019	8:41:00	PDO	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Angle	Clear	Daylight	Dry	None
12/5/2019	15:15:00	PDO	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Cloudy	Daylight	Dry	None
12/5/2019	8:43:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
12/5/2019	7:28:00	Sus. Minor Inj.	2	Waterbury	0.22	WEST MAIN ST	SOUTH MAIN ST	Angle	Snow	Daylight	Wet	None
12/5/2019	17:29:00	PDO	3	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Cloudy	Dark-Lighted	Dry	None
12/8/2019	13:55:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Rear to side	Clear	Daylight	Dry	None
12/9/2019	16:06:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Front to rear	Rain	Dusk	Wet	None
12/9/2019	7:56:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Rain	Daylight	Wet	None
12/10/2019	17:14:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Rain	Dark-Lighted	Wet	None
12/10/2019	13:19:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Rain	Daylight	Wet	None
12/11/2019	19:20:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
12/16/2019	15:43:00	PDO	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to front	Clear	Daylight	Dry	None
12/16/2019	13:42:00	Sus. Minor Inj.	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
12/17/2019	6:37:00	PDO	2	Waterbury	0.33	WEST MAIN ST	EAST MAIN ST	Other	Blowing Snow	Dark-Lighted	Slush	None
12/18/2019	16:24:00	Possible Inj.	2	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Sideswipe, same direction	Clear	Daylight	Wet	None
12/19/2019	15:44:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/20/2019	22:26:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Lighted	Dry	None
12/22/2019	2:30:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Angle	Clear	Dark-Lighted	Dry	None
12/22/2019	11:05:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
12/22/2019	11:05:00	Possible Inj.	2	Waterbury	3.87	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/24/2019	11:30:00	Possible Inj.	2	Waterbury	0.14	WEST MAIN ST	STATE ST	Angle	Clear	Daylight	Dry	None
12/28/2019	7:12:00	Sus. Minor Inj.	1	Waterbury	0.06	WEST MAIN ST	NORTH MAIN ST	Not Applicable	Clear	Daylight	Dry	None
12/31/2019	13:58:00	PDO	2	Waterbury	3.91	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
12/31/2019	13:58:00	PDO	2	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
1/1/2020	3:20:00	Sus. Minor Inj.	2	Waterbury	0.17	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
1/7/2020	13:05:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
1/9/2020	12:45:00	PDO	2	Waterbury	3.75	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
1/12/2020	14:13:00	PDO	1	Waterbury	0	WEST MAIN ST	SOUTH MAIN ST	Not Applicable	Clear	Daylight	Dry	None
1/15/2020	7:49:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
1/19/2020	9:32:00	PDO	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Daylight	Wet	None
1/21/2020	18:29:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Front to rear	Clear	Dark-Lighted	Dry	None
1/21/2020	10:28:00	PDO	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Daylight	Dry	None
1/21/2020	14:38:00	PDO	2	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Angle	Clear	Daylight	Dry	None
1/23/2020	14:57:00	Possible Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
1/24/2020	8:36:00	PDO	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Daylight	Wet	None
1/26/2020	16:02:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
1/29/2020	14:17:00	Possible Inj.	2	Waterbury	3.63	WEST MAIN ST	SPERRY ST	Angle	Clear	Daylight	Dry	None
1/30/2020	12:30:00	PDO	2	Waterbury	0.33	WEST MAIN ST	EAST MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
2/2/2020	13:25:00	Possible Inj.	3	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
2/6/2020	14:03:00	Sus. Minor Inj.	5	Waterbury	0.69	WEST MAIN ST	RIVERSIDE ST NB	Other	Freezing Rain	Daylight	Wet	None
2/7/2020	9:17:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Rain	Daylight	Wet	None
2/13/2020	13:30:00	Sus. Minor Inj.	1	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Pedestrian	Rain	Daylight	Wet	None
2/16/2020	13:49:00	PDO	2	Waterbury	0.14	WEST MAIN ST	CENTRAL AVE	Angle	Fog, Smog, Smoke	Other	Wet	Weather Conditions
2/19/2020	1:03:00	PDO	1	Waterbury	0.17	WEST MAIN ST	CHURCH ST	Fixed Obj.	Clear	Dark-Lighted	Wet	None
2/21/2020	15:33:00	PDO	2	Waterbury	0.31	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
2/21/2020	2:38:00	PDO	1	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Dark-Lighted	Dry	None
2/22/2020	14:33:00	PDO	2	Waterbury	0.14	WEST MAIN ST	CENTRAL AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
2/22/2020	23:30:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Sideswipe, same direction	Clear	Dark-Lighted	Dry	None
2/22/2020	12:40:00	Sus. Minor Inj.	3	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Daylight	Dry	None
2/24/2020	15:16:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
2/25/2020	12:19:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	STATE ST	Angle	Clear	Daylight	Dry	None
3/3/2020	11:05:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
3/4/2020	22:32:00	PDO	2	Waterbury	3.61	WEST MAIN ST	unknown	Sideswipe, opposite direction	Clear	Dark-Lighted	Dry	None
3/5/2020	15:46:00	PDO	2	Waterbury	0.03	WEST MAIN ST	NORTH MAIN ST	Front to rear	Clear	Daylight	Dry	None

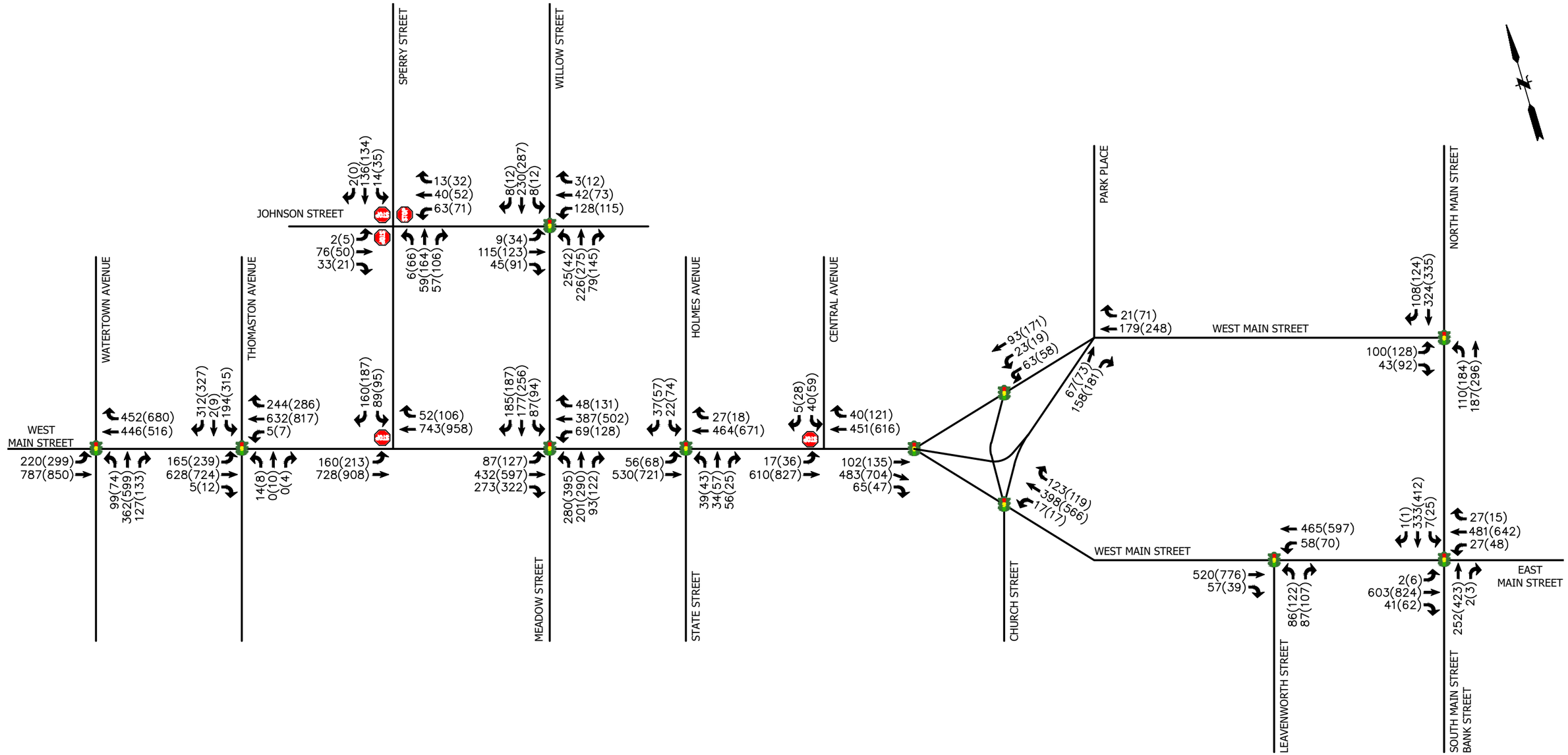
3/7/2020	9:51:00	Possible Inj.	3	Waterbury	3.7	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
3/9/2020	18:09:00	PDO	1	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Daylight	Dry	None
3/10/2020	17:40:00	PDO	2	Waterbury	0.07	WEST MAIN ST	unknown	Other	Clear	Dark-Lighted	Dry	None
3/12/2020	17:14:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
3/13/2020	20:38:00	PDO	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Clear	Dark-Lighted	Dry	None
3/18/2020	17:20:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Sideswipe, same direction	Clear	Daylight	Dry	None
3/21/2020	21:30:00	Sus. Minor Inj.	1	Waterbury	3.82	WEST MAIN ST	unknown	Pedestrian	Clear	Dark-Not Lighted	Dry	None
3/22/2020	16:04:00	PDO	2	Waterbury	3.78	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
3/24/2020	11:19:00	Sus. Minor Inj.	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
4/3/2020	12:56:00	Possible Inj.	2	Waterbury	0.33	WEST MAIN ST	NORTH MAIN ST	Front to rear	Rain	Daylight	Wet	None
4/5/2020	8:25:00	PDO	2	Waterbury	3.72	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Other	Dry	None
4/9/2020	13:59:00	PDO	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Front to rear	Cloudy	Daylight	Wet	None
4/10/2020	15:19:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
4/16/2020	17:41:00	Sus. Minor Inj.	2	Waterbury	3.65	WEST MAIN ST	unknown	Front to rear	Clear	Dusk	Dry	None
4/18/2020	14:50:00	Sus. Minor Inj.	2	Waterbury	3.59	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
4/18/2020	19:09:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
4/21/2020	17:17:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Wet	None
4/25/2020	21:52:00	PDO	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Dark-Not Lighted	Dry	None
5/3/2020	1:13:00	Possible Inj.	1	Waterbury	3.92	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Dry	None
5/3/2020	1:13:00	Possible Inj.	1	Waterbury	3.92	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Dark-Lighted	Dry	None
5/6/2020	17:02:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
5/14/2020	12:19:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
5/18/2020	23:24:00	Possible Inj.	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Front to rear	Clear	Dark-Lighted	Dry	None
5/20/2020	15:13:00	PDO	2	Waterbury	3.64	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
5/21/2020	10:45:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Clear	Daylight	Dry	None
5/29/2020	13:48:00	Possible Inj.	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Sideswipe, opposite direction	Clear	Daylight	Dry	None
5/30/2020	18:56:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Angle	Clear	Daylight	Dry	None
5/30/2020	23:59:00	Sus. Minor Inj.	2	Waterbury	3.74	WEST MAIN ST	unknown	Angle	Rain	Dark-Lighted	Wet	None
6/2/2020	12:56:00	PDO	2	Waterbury	3.64	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
6/4/2020	13:36:00	PDO	2	Waterbury	0.04	WEST MAIN ST	NORTH MAIN ST	Sideswipe, same direction	Clear	Daylight	Dry	None
6/6/2020	15:48:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Rear to side	Clear	Daylight	Dry	None
6/14/2020	21:33:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to front	Clear	Dark-Lighted	Dry	None
6/18/2020	16:35:00	PDO	3	Waterbury	3.91	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/18/2020	16:10:00	Possible Inj.	2	Waterbury	3.72	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
6/18/2020	16:35:00	PDO	3	Waterbury	3.91	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
6/19/2020	11:38:00	PDO	2	Waterbury	3.6	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/22/2020	17:10:00	PDO	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Clear	Daylight	Dry	None
6/22/2020	19:42:00	PDO	2	Waterbury	3.66	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/30/2020	15:01:00	PDO	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
6/30/2020	13:11:00	PDO	2	Waterbury	0	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
7/1/2020	9:05:00	PDO	2	Waterbury	3.73	WEST MAIN ST	unknown	Other	Clear	Daylight	Dry	None
7/2/2020	20:35:00	Sus. Minor Inj.	2	Waterbury	3.62	WEST MAIN ST	unknown	Angle	Clear	Dark-Lighted	Dry	None
7/3/2020	18:05:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Rain	Daylight	Wet	None
7/5/2020	19:07:00	Sus. Minor Inj.	1	Waterbury	3.67	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	None
7/10/2020	8:55:00	PDO	2	Waterbury	3.7	WEST MAIN ST	FRENCH ST	Other	Clear	Daylight	Dry	None
7/19/2020	13:45:00	Sus. Minor Inj.	2	Waterbury	0.98	WEST MAIN ST	RIVERSIDE ST NB	Angle	Clear	Daylight	Dry	None
7/23/2020	6:56:00	PDO	1	Waterbury	0.18	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Dry	Unknown
7/23/2020	7:40:00	PDO	2	Waterbury	99151	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
7/23/2020	7:40:00	PDO	2	Waterbury	99151	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
7/24/2020	21:20:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Dark-Not Lighted	Dry	Glare
7/25/2020	12:40:00	PDO	2	Waterbury	3.62	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
7/27/2020	21:24:00	PDO	2	Waterbury	0.14	WEST MAIN ST	CENTRAL AVE	Angle	Clear	Dark-Lighted	Dry	None
7/28/2020	15:10:00	Possible Inj.	2	Waterbury	0.08	WEST MAIN ST	HOLMES AVE	Angle	Rain	Daylight	Wet	None
7/28/2020	7:31:00	Possible Inj.	2	Waterbury	3.76	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
8/3/2020	11:48:00	PDO	1	Waterbury	3.77	WEST MAIN ST	unknown	Fixed Obj.	Clear	Daylight	Dry	None
8/7/2020	23:25:00	PDO	2	Waterbury	3.7	WEST MAIN ST	unknown	Unknown	Clear	Dark-Not Lighted	Dry	None

8/7/2020	10:13:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
8/12/2020	15:35:00	Sus. Minor Inj.	2	Waterbury	3.66	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
8/18/2020	12:18:00	PDO	2	Waterbury	0.31	WEST MAIN ST	unknown	Sideswipe, same direction	Clear	Daylight	Dry	None
8/18/2020	20:39:00	Sus. Serious Inj.	1	Waterbury	3.68	WEST MAIN ST	JUDD ST	Pedestrian	Clear	Dark-Lighted	Dry	None
8/21/2020	13:52:00	Sus. Minor Inj.	1	Waterbury	3.74	WEST MAIN ST	GILBERT ST	Pedestrian	Clear	Daylight	Dry	None
8/25/2020	20:18:00	PDO	2	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Front to rear	Clear	Dark-Lighted	Dry	None
8/27/2020	12:05:00	Sus. Minor Inj.	2	Waterbury	3.9	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
8/27/2020	12:05:00	Sus. Minor Inj.	2	Waterbury	3.9	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/2/2020	14:20:00	PDO	2	Waterbury	0.98	WEST MAIN ST	unknown	Front to rear	Rain	Daylight	Wet	Weather Conditions
9/3/2020	13:34:00	Sus. Minor Inj.	2	Waterbury	3.83	WEST MAIN ST	COMMERCIAL ST	Angle	Clear	Daylight	Dry	None
9/4/2020	14:40:00	PDO	1	Waterbury	0.33	WEST MAIN ST	EAST MAIN ST	Fixed Obj.	Clear	Daylight	Dry	None
9/9/2020	3:35:00	PDO	1	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Fixed Obj.	Clear	Dark-Lighted	Dry	None
9/15/2020	16:25:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/16/2020	15:10:00	Possible Inj.	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to rear	Clear	Daylight	Dry	None
9/17/2020	11:08:00	Possible Inj.	1	Waterbury	0.26	WEST MAIN ST	LEAVENWORTH ST	Pedestrian	Clear	Daylight	Dry	None
9/17/2020	15:17:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
9/17/2020	12:06:00	PDO	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
9/18/2020	0:56:00	PDO	1	Waterbury	3.6	WEST MAIN ST	MEADOW ST	Fixed Obj.	Clear	Dark-Lighted	Dry	None
9/19/2020	2:19:00	Possible Inj.	1	Waterbury	0.01	WEST MAIN ST	WILLOW ST	Not Applicable	Clear	Dark-Lighted	Dry	None
9/23/2020	15:51:00	PDO	2	Waterbury	3.62	WEST MAIN ST	unknown	Angle	Clear	Daylight	Dry	None
9/27/2020	21:14:00	PDO	2	Waterbury	0.03	WEST MAIN ST	THOMASTON AVE	Angle	Rain	Dark-Lighted	Wet	None
9/29/2020	23:03:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Front to front	Rain	Dark-Lighted	Wet	None
10/3/2020	16:59:00	PDO	1	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Fixed Obj.	Clear	Daylight	Dry	None
10/4/2020	14:57:00	Sus. Minor Inj.	2	Waterbury	0.05	WEST MAIN ST	unknown	Sideswipe, opposite direction	Clear	Daylight	Dry	None
10/6/2020	16:38:00	PDO	2	Waterbury	0.05	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
10/6/2020	12:55:00	PDO	2	Waterbury	3.65	WEST MAIN ST	unknown	Rear to rear	Cloudy	Daylight	Dry	None
10/19/2020	14:05:00	Possible Inj.	2	Waterbury	3.63	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
10/24/2020	15:19:00	PDO	2	Waterbury	0.02	WEST MAIN ST	WILLOW ST	Sideswipe, same direction	Clear	Daylight	Dry	None
10/26/2020	16:04:00	PDO	2	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Angle	Cloudy	Daylight	Dry	None
10/28/2020	9:19:00	Possible Inj.	2	Waterbury	3.63	WEST MAIN ST	unknown	Angle	Rain	Daylight	Wet	None
10/31/2020	13:36:00	Possible Inj.	1	Waterbury	3.6	WEST MAIN ST	WILLOW ST	Pedestrian	Clear	Daylight	Dry	None
11/5/2020	12:19:00	PDO	2	Waterbury	0	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/6/2020	2:04:00	PDO	1	Waterbury	3.77	WEST MAIN ST	unknown	Fixed Obj.	Clear	Dark-Lighted	Dry	None
11/11/2020	15:07:00	PDO	2	Waterbury	3.74	WEST MAIN ST	unknown	Front to rear	Clear	Daylight	Dry	None
11/11/2020	18:40:00	Possible Inj.	1	Waterbury	0.16	WEST MAIN ST	NORTH MAIN ST	Pedestrian	Rain	Dark-Lighted	Wet	None
11/13/2020	14:53:00	PDO	2	Waterbury	0.02	WEST MAIN ST	THOMASTON AVE	Sideswipe, same direction	Cloudy	Daylight	Dry	None
11/16/2020	17:50:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/19/2020	14:07:00	PDO	2	Waterbury	3.89	WEST MAIN ST	THOMASTON AVE	Front to rear	Clear	Daylight	Dry	None
12/21/2020	14:59:00	PDO	2	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/23/2020	8:14:00	PDO	2	Waterbury	0	WEST MAIN ST	THOMASTON AVE	Angle	Clear	Daylight	Dry	None
12/28/2020	16:02:00	Sus. Minor Inj.	1	Waterbury	0.01	WEST MAIN ST	THOMASTON AVE	Pedestrian	Clear	Daylight	Dry	None

PDO - Property Damage Only

Appendix B

Existing 2019 Traffic Volume Figure



XX(XX) = WEEKDAY MORNING PEAK HOUR (WEEKDAY AFTERNOON PEAK HOUR)

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
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FIGURE 2: EXISTING 2019 VOLUMES

PROJ. NO: 20191377.A10 | WEST MAIN STREET CORRIDOR STUDY | FEBRUARY 2020

File Path: J:\DWG\P2019\1377\A10\Civil\Traffic Figures\20191377A10_TVF02.dwg Layout: FIG. 2 EXISTING Plotted: Tue, February 09, 2021 - 1:59 PM User: AJEET SANDHU

Appendix C

Intersection Capacity Analysis Worksheets
2019 Existing Traffic Volumes
Weekday Morning Peak Hour

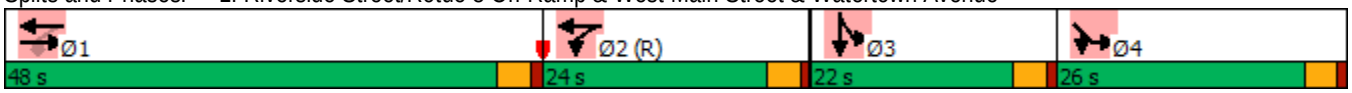
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Traffic Volume (vph)	461	104	206	348	215	114	88	239	106	104
Future Volume (vph)	461	104	206	348	215	114	88	239	106	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		40	0		0		0	230	0	
Storage Lanes		1	1		1		0	1	1	
Taper Length (ft)			25		25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.935			0.850	
Flt Protected			0.950		0.950			0.950		
Satd. Flow (prot)	1863	1583	1770	3539	1770	1742	0	1770	1583	0
Flt Permitted			0.204		0.950			0.950		
Satd. Flow (perm)	1863	1583	380	3539	1770	1742	0	1770	1583	0
Right Turn on Red		Yes								Yes
Satd. Flow (RTOR)		82							82	
Link Speed (mph)	30			30		30		30		
Link Distance (ft)	314			357		308		436		
Travel Time (s)	7.1			8.1		7.0		9.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	501	113	224	378	234	124	96	260	115	113
Shared Lane Traffic (%)										
Lane Group Flow (vph)	501	113	224	378	234	220	0	260	228	0
Turn Type	NA	Perm	D.P+P	NA	Split	NA		Prot	Prot	
Protected Phases	1		2	1 2	3	3		4	4	
Permitted Phases		1	1							
Minimum Split (s)	14.0	14.0	7.0		12.0	12.0		12.0	12.0	
Total Split (s)	48.0	48.0	24.0		22.0	22.0		26.0	26.0	
Total Split (%)	40.0%	40.0%	20.0%		18.3%	18.3%		21.7%	21.7%	
Maximum Green (s)	44.0	44.0	20.0		18.0	18.0		22.0	22.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Act Effct Green (s)	44.0	44.0	64.0	68.0	18.0	18.0		22.0	22.0	
Actuated g/C Ratio	0.37	0.37	0.53	0.57	0.15	0.15		0.18	0.18	
v/c Ratio	0.73	0.18	0.52	0.19	0.88	0.84		0.80	0.64	
Control Delay	40.5	9.6	23.5	7.3	82.5	77.1		66.3	37.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	40.5	9.6	23.5	7.3	82.5	77.1		66.3	37.7	
LOS	D	A	C	A	F	E		E	D	
Approach Delay	34.8			13.3		79.9		52.9		
Approach LOS	C			B		E		D		
Queue Length 50th (ft)	333	15	72	31	180	168		195	105	
Queue Length 95th (ft)	466	55	m148	40	#326	#304		#327	194	
Internal Link Dist (ft)	234			277		228		356		
Turn Bay Length (ft)		40						230		
Base Capacity (vph)	683	632	434	2005	265	261		324	357	

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR	SEL	SER	SER2
Starvation Cap Reductn	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.73	0.18	0.52	0.19	0.88	0.84		0.80	0.64	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 42.4 Intersection LOS: D
Intersection Capacity Utilization 74.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Street/Rotue 8 Off Ramp & West Main Street & Watertown Avenue



Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Traffic Volume (vph)	461	104	206	348	215	114	88	239	106	104
Future Volume (vph)	461	104	206	348	215	114	88	239	106	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00		1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.93		1.00	0.85	
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	3539	1770	1741		1770	1583	
Flt Permitted	1.00	1.00	0.20	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1863	1583	380	3539	1770	1741		1770	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	501	113	224	378	234	124	96	260	115	113
RTOR Reduction (vph)	0	52	0	0	0	0	0	0	67	0
Lane Group Flow (vph)	501	61	224	378	234	220	0	260	161	0
Turn Type	NA	Perm	D.P+P	NA	Split	NA		Prot	Prot	
Protected Phases	1		2	1 2	3	3		4	4	
Permitted Phases		1	1							
Actuated Green, G (s)	44.0	44.0	64.0	68.0	18.0	18.0		22.0	22.0	
Effective Green, g (s)	44.0	44.0	64.0	68.0	18.0	18.0		22.0	22.0	
Actuated g/C Ratio	0.37	0.37	0.53	0.57	0.15	0.15		0.18	0.18	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	683	580	434	2005	265	261		324	290	
v/s Ratio Prot	c0.27		c0.09	0.11	c0.13	0.13		c0.15	0.10	
v/s Ratio Perm		0.04	0.19							
v/c Ratio	0.73	0.11	0.52	0.19	0.88	0.84		0.80	0.56	
Uniform Delay, d1	32.9	25.0	34.3	12.6	50.0	49.6		46.9	44.6	
Progression Factor	1.00	1.00	0.74	0.56	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.9	0.4	3.4	0.2	31.9	26.8		18.7	7.5	
Delay (s)	39.8	25.4	28.9	7.2	81.9	76.5		65.6	52.0	
Level of Service	D	C	C	A	F	E		E	D	
Approach Delay (s)	37.1			15.3		79.3		59.2		
Approach LOS	D			B		E		E		

Intersection Summary			
HCM 2000 Control Delay	44.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	787	0	0	446	452	99	362	127	0	0	0
Future Volume (vph)	220	787	0	0	446	452	99	362	127	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	1863	1583	3433	1863	1583	0	0	0
Flt Permitted	0.487						0.950					
Satd. Flow (perm)	907	3539	0	0	1863	1583	3433	1863	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						491			134			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		357			839			247			271	
Travel Time (s)		8.1			19.1			5.6			6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	855	0	0	485	491	108	393	138	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	239	855	0	0	485	491	108	393	138	0	0	0
Turn Type	custom	NA			NA	Perm	Split	NA	Prot			
Protected Phases	6	5 6 8			5		7	7	7			
Permitted Phases	5 8					5						
Minimum Split (s)	22.5				22.5	22.5	10.0	10.0	10.0			
Total Split (s)	24.0				48.0	48.0	20.0	20.0	20.0			
Total Split (%)	20.0%				40.0%	40.0%	16.7%	16.7%	16.7%			
Maximum Green (s)	20.0				44.0	44.0	16.0	16.0	16.0			
Yellow Time (s)	3.0				3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0				1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0				0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.0				4.0	4.0	4.0	4.0	4.0			
Lead/Lag	Lag				Lead	Lead	Lead	Lead	Lead			
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes			
Act Effct Green (s)	92.0	96.0			44.0	44.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.77	0.80			0.37	0.37	0.13	0.13	0.13			
v/c Ratio	0.28	0.30			0.71	0.55	0.24	1.58	0.42			
Control Delay	2.7	2.1			39.4	4.9	48.1	316.2	12.7			
Queue Delay	0.1	0.6			0.0	0.0	0.0	0.0	0.0			
Total Delay	2.8	2.7			39.4	4.9	48.1	316.2	12.7			
LOS	A	A			D	A	D	F	B			
Approach Delay		2.8			22.1			205.3				
Approach LOS		A			C			F				
Queue Length 50th (ft)	24	60			319	0	39	~433	3			
Queue Length 95th (ft)	m30	m64			447	72	67	#630	62			
Internal Link Dist (ft)		277			759			167			191	
Turn Bay Length (ft)												
Base Capacity (vph)	839	2831			683	891	457	248	327			
Starvation Cap Reductn	108	1489			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			

Lane Group	Ø1	Ø2	Ø3	Ø4	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Turn Type					
Protected Phases	1	2	3	4	8
Permitted Phases					
Minimum Split (s)	14.0	7.0	12.0	12.0	22.5
Total Split (s)	48.0	24.0	22.0	26.0	28.0
Total Split (%)	40%	20%	18%	22%	23%
Maximum Green (s)	44.0	20.0	18.0	22.0	24.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.33	0.64			0.71	0.55	0.24	1.58	0.42			

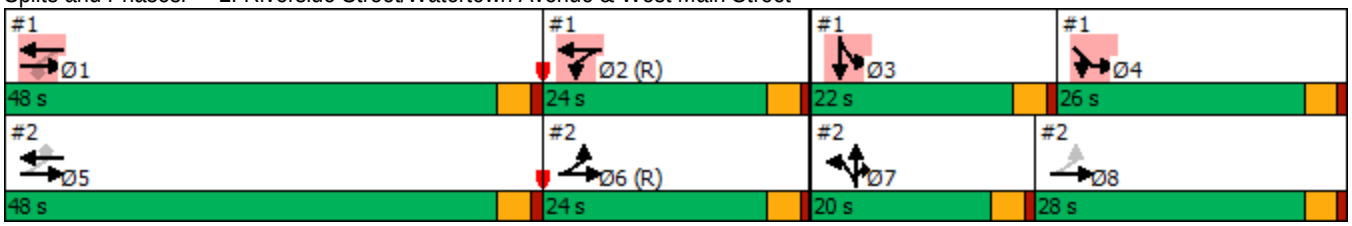
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	
Maximum v/c Ratio: 1.58	
Intersection Signal Delay: 57.5	Intersection LOS: E
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Street/Watertown Avenue & West Main Street



Lane Group	Ø1	Ø2	Ø3	Ø4	Ø8
Reduced v/c Ratio					

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	220	787	0	0	446	452	99	362	127	0	0	0
Future Volume (vph)	220	787	0	0	446	452	99	362	127	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	0.95			1.00	1.00	0.97	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	3539			1863	1583	3433	1863	1583			
Flt Permitted	0.49	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	907	3539			1863	1583	3433	1863	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	239	855	0	0	485	491	108	393	138	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	322	0	0	116	0	0	0
Lane Group Flow (vph)	239	855	0	0	485	169	108	393	22	0	0	0
Turn Type	custom	NA			NA	Perm	Split	NA	Prot			
Protected Phases	6	5 6 8			5		7	7	7			
Permitted Phases	5 8					5						
Actuated Green, G (s)	92.0	96.0			41.3	41.3	16.0	16.0	16.0			
Effective Green, g (s)	92.0	96.0			41.3	41.3	16.0	16.0	16.0			
Actuated g/C Ratio	0.77	0.80			0.34	0.34	0.13	0.13	0.13			
Clearance Time (s)	4.0				4.0	4.0	4.0	4.0	4.0			
Lane Grp Cap (vph)	858	2831			641	544	457	248	211			
v/s Ratio Prot	0.05	c0.24			c0.26		0.03	c0.21	0.01			
v/s Ratio Perm	0.16					0.11						
v/c Ratio	0.28	0.30			0.76	0.31	0.24	1.58	0.10			
Uniform Delay, d1	4.4	3.2			34.9	28.9	46.5	52.0	45.7			
Progression Factor	0.60	0.61			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.6	0.2			8.1	1.5	1.2	281.5	1.0			
Delay (s)	3.2	2.1			43.0	30.4	47.7	333.5	46.7			
Level of Service	A	A			D	C	D	F	D			
Approach Delay (s)		2.4			36.7			223.3			0.0	
Approach LOS		A			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	66.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	628	5	5	632	244	14	0	0	194	2	312
Future Volume (vph)	165	628	5	5	632	244	14	0	0	194	2	312
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999				0.850						0.850
Flt Protected		0.990		0.950			0.950				0.953	
Satd. Flow (prot)	0	3500	0	1770	1863	1583	1770	1863	1863	0	1775	1583
Flt Permitted		0.590		0.299			0.534				0.728	
Satd. Flow (perm)	0	2086	0	557	1863	1583	995	1863	1863	0	1356	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						176						339
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		839			356			196			228	
Travel Time (s)		19.1			8.1			4.5			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	683	5	5	687	265	15	0	0	211	2	339
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	867	0	5	687	265	15	0	0	0	213	339
Turn Type	custom	NA		custom	NA	custom	Perm		Perm	Perm	NA	Perm
Protected Phases	1	1 2		3	2 3			5			5	
Permitted Phases	2			2		2	5		5	5		5
Detector Phase	1	1 2		3	2 3	2	5	5	5	5	5	5
Switch Phase												
Minimum Initial (s)	1.0			1.0		5.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	5.0			5.0		15.0	9.0	9.0	9.0	9.0	9.0	9.0
Total Split (s)	6.0			5.0		40.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	4.9%			4.1%		32.8%	36.9%	36.9%	36.9%	36.9%	36.9%	36.9%
Maximum Green (s)	3.0			1.0		35.0	40.0	40.0	40.0	40.0	40.0	40.0
Yellow Time (s)	3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0			1.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				0.0		0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)				4.0		5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead			Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None			None		Max	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		40.2		37.2	35.2	35.2	17.5				17.5	17.5
Actuated g/C Ratio		0.54		0.50	0.48	0.48	0.24				0.24	0.24
v/c Ratio		0.73		0.02	0.77	0.31	0.06				0.66	0.53
Control Delay		17.3		9.8	25.3	6.1	21.1				35.6	6.1
Queue Delay		0.0		0.0	0.0	0.0	0.0				0.0	0.0
Total Delay		17.3		9.8	25.3	6.1	21.1				35.6	6.1
LOS		B		A	C	A	C				D	A
Approach Delay		17.3			19.9			21.1			17.5	
Approach LOS		B			B			C			B	

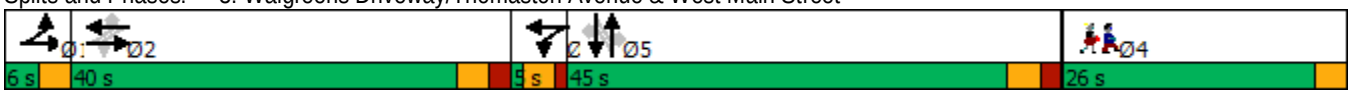
Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	21%
Maximum Green (s)	23.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	16.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		102		1	245	21	5				88	0
Queue Length 95th (ft)		#187		6	#520	75	19				155	56
Internal Link Dist (ft)		759			276			116			148	
Turn Bay Length (ft)												
Base Capacity (vph)		1193		297	887	846	541				738	1016
Starvation Cap Reductn		0		0	0	0	0				0	0
Spillback Cap Reductn		0		0	0	0	0				0	0
Storage Cap Reductn		0		0	0	0	0				0	0
Reduced v/c Ratio		0.73		0.02	0.77	0.31	0.03				0.29	0.33

Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 73.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Walgreens Driveway/Thomaston Avenue & West Main Street



Lane Group	Ø4
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	628	5	5	632	244	14	0	0	194	2	312
Future Volume (vph)	165	628	5	5	632	244	14	0	0	194	2	312
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		4.0	5.0	5.0	5.0				5.0	5.0
Lane Util. Factor		0.95		1.00	1.00	1.00	1.00				1.00	1.00
Frt		1.00		1.00	1.00	0.85	1.00				1.00	0.85
Flt Protected		0.99		0.95	1.00	1.00	0.95				0.95	1.00
Satd. Flow (prot)		3500		1770	1863	1583	1770				1775	1583
Flt Permitted		0.59		0.30	1.00	1.00	0.53				0.73	1.00
Satd. Flow (perm)		2088		556	1863	1583	995				1357	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	683	5	5	687	265	15	0	0	211	2	339
RTOR Reduction (vph)	0	0	0	0	0	92	0	0	0	0	0	259
Lane Group Flow (vph)	0	867	0	5	687	173	15	0	0	0	213	80
Turn Type	custom	NA		custom	NA	custom	Perm		Perm	Perm	NA	Perm
Protected Phases	1	1 2		3	2 3			5			5	
Permitted Phases	2			2		2	5		5	5		5
Actuated Green, G (s)		38.2		36.2	41.2	35.2	17.5				17.5	17.5
Effective Green, g (s)		38.2		36.2	41.2	35.2	17.5				17.5	17.5
Actuated g/C Ratio		0.52		0.49	0.56	0.48	0.24				0.24	0.24
Clearance Time (s)				4.0		5.0	5.0				5.0	5.0
Vehicle Extension (s)				3.0		3.0	3.0				3.0	3.0
Lane Grp Cap (vph)		1139		289	1041	756	236				322	375
v/s Ratio Prot		c0.03		0.00	c0.37							
v/s Ratio Perm		c0.36		0.01		0.11	0.02				c0.16	0.05
v/c Ratio		0.76		0.02	0.66	0.23	0.06				0.66	0.21
Uniform Delay, d1		14.1		11.3	11.4	11.3	21.8				25.4	22.6
Progression Factor		1.00		1.00	1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2		3.1		0.0	1.5	0.7	0.1				5.0	0.3
Delay (s)		17.2		11.3	12.9	12.0	21.9				30.5	22.9
Level of Service		B		B	B	B	C				C	C
Approach Delay (s)		17.2			12.6			21.9			25.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	73.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	160	728	743	52	89	160
Future Volume (vph)	160	728	743	52	89	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	100	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.991			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1846	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1846	0	1770	1583
Link Speed (mph)		30	30		30	
Link Distance (ft)		219	398		263	
Travel Time (s)		5.0	9.0		6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	791	808	57	97	174
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	791	865	0	97	174
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	160	728	743	52	89	160
Future Volume (Veh/h)	160	728	743	52	89	160
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	174	791	808	57	97	174
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		722	846			
pX, platoon unblocked	0.87				0.86	0.87
vC, conflicting volume	865				1976	836
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	774				1725	742
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	76				0	52
cM capacity (veh/h)	736				64	364

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	174	791	865	97	174
Volume Left	174	0	0	97	0
Volume Right	0	0	57	0	174
cSH	736	1700	1700	64	364
Volume to Capacity	0.24	0.47	0.51	1.51	0.48
Queue Length 95th (ft)	23	0	0	211	62
Control Delay (s)	11.4	0.0	0.0	402.9	23.6
Lane LOS	B			F	C
Approach Delay (s)	2.1		0.0	159.4	
Approach LOS				F	

Intersection Summary			
Average Delay	21.5		
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	432	273	69	387	48	280	201	93	87	177	185
Future Volume (vph)	87	432	273	69	387	48	280	201	93	87	177	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.948			0.984				0.850			0.850
Flt Protected		0.995		0.950				0.972			0.984	
Satd. Flow (prot)	0	3338	0	1770	3483	0	0	1811	1583	0	1833	1583
Flt Permitted		0.818		0.175				0.505			0.458	
Satd. Flow (perm)	0	2745	0	326	3483	0	0	941	1583	0	853	1583
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									103			201
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		448			464			449			761	
Travel Time (s)		10.2			10.5			10.2			17.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	470	297	75	421	52	304	218	101	95	192	201
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	862	0	75	473	0	0	522	101	0	287	201
Turn Type	Perm	NA		D.P+P	NA		D.P+P	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	1 2		4	4 5			5	
Permitted Phases	2			2			5		4 5	5		5
Detector Phase	2	2		1	1 2		4	4 5	4 5	5	5	5
Switch Phase												
Minimum Initial (s)	1.0	1.0		1.0			1.0			1.0	1.0	1.0
Minimum Split (s)	15.0	15.0		6.0			6.0			8.0	8.0	8.0
Total Split (s)	30.0	30.0		10.0			10.0			25.0	25.0	25.0
Total Split (%)	31.6%	31.6%		10.5%			10.5%			26.3%	26.3%	26.3%
Maximum Green (s)	24.0	24.0		7.0			6.0			19.0	19.0	19.0
Yellow Time (s)	3.0	3.0		3.0			3.0			3.0	3.0	3.0
All-Red Time (s)	3.0	3.0		0.0			1.0			3.0	3.0	3.0
Lost Time Adjust (s)		0.0		0.0							0.0	0.0
Total Lost Time (s)		6.0		3.0							6.0	6.0
Lead/Lag	Lag	Lag		Lead			Lag					
Lead-Lag Optimize?	Yes	Yes		Yes			Yes					
Vehicle Extension (s)	3.0	3.0		3.0			3.0			3.0	3.0	3.0
Recall Mode	Max	Max		None			None			None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		24.0		34.0	37.0			27.0	31.0		19.0	19.0
Actuated g/C Ratio		0.32		0.45	0.49			0.36	0.41		0.25	0.25
v/c Ratio		0.98		0.27	0.28			1.28	0.14		1.33	0.36
Control Delay		53.7		12.7	11.7			167.1	3.7		204.3	5.9
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		53.7		12.7	11.7			167.1	3.7		204.3	5.9
LOS		D		B	B			F	A		F	A
Approach Delay		53.7			11.8			140.6			122.6	
Approach LOS		D			B			F			F	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

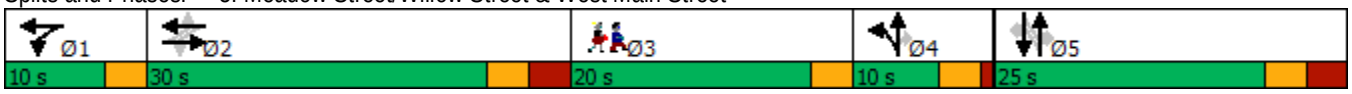
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		206		17	64			~266	0		~177	0
Queue Length 95th (ft)		#331		38	93			#493	26		#320	48
Internal Link Dist (ft)		368			384			369			681	
Turn Bay Length (ft)												
Base Capacity (vph)		878		282	1718			408	714		216	551
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.98		0.27	0.28			1.28	0.14		1.33	0.36

Intersection Summary	
Area Type:	Other
Cycle Length: 95	
Actuated Cycle Length: 75	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 79.4	Intersection LOS: E
Intersection Capacity Utilization 92.3%	ICU Level of Service F
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Meadow Street/Willow Street & West Main Street



Lane Group	Ø3
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	432	273	69	387	48	280	201	93	87	177	185
Future Volume (vph)	87	432	273	69	387	48	280	201	93	87	177	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		3.0	3.0			4.0	4.0		6.0	6.0
Lane Util. Factor		0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt		0.95		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected		0.99		0.95	1.00			0.97	1.00		0.98	1.00
Satd. Flow (prot)		3338		1770	3481			1810	1583		1832	1583
Flt Permitted		0.82		0.18	1.00			0.50	1.00		0.46	1.00
Satd. Flow (perm)		2747		327	3481			940	1583		852	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	95	470	297	75	421	52	304	218	101	95	192	201
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	62	0	0	150
Lane Group Flow (vph)	0	862	0	75	473	0	0	522	39	0	287	51
Turn Type	Perm	NA		D.P+P	NA		D.P+P	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	1 2		4	4 5			5	
Permitted Phases	2			2			5		4 5	5		5
Actuated Green, G (s)		24.0		31.0	34.0			25.0	29.0		19.0	19.0
Effective Green, g (s)		24.0		31.0	34.0			25.0	29.0		19.0	19.0
Actuated g/C Ratio		0.32		0.41	0.45			0.33	0.39		0.25	0.25
Clearance Time (s)		6.0		3.0							6.0	6.0
Vehicle Extension (s)		3.0		3.0							3.0	3.0
Lane Grp Cap (vph)		879		269	1578			382	612		215	401
v/s Ratio Prot				0.03	c0.14			c0.11				
v/s Ratio Perm		c0.31		0.09				c0.35	0.02		0.34	0.03
v/c Ratio		0.98		0.28	0.30			1.37	0.06		1.33	0.13
Uniform Delay, d1		25.3		14.4	13.0			25.0	14.5		28.0	21.6
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		26.0		0.6	0.1			180.9	0.0		178.8	0.1
Delay (s)		51.3		15.0	13.1			205.9	14.5		206.8	21.7
Level of Service		D		B	B			F	B		F	C
Approach Delay (s)		51.3			13.3			174.9			130.6	
Approach LOS		D			B			F			F	

Intersection Summary			
HCM 2000 Control Delay	88.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	92.3%	ICU Level of Service	F
Analysis Period (min)	15		

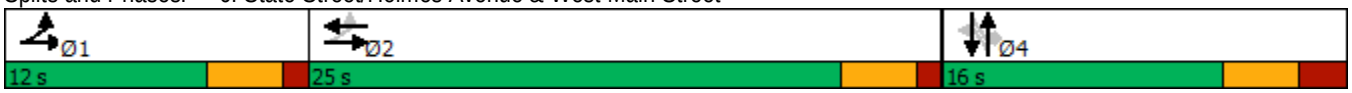
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	530	0	0	464	27	39	34	56	22	0	37
Future Volume (vph)	56	530	0	0	464	27	39	34	56	22	0	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.992				0.850		0.916	
Flt Protected	0.950							0.974			0.982	
Satd. Flow (prot)	1770	3539	0	0	5045	0	0	1814	1583	0	1676	0
Flt Permitted	0.444							0.799			0.843	
Satd. Flow (perm)	827	3539	0	0	5045	0	0	1488	1583	0	1438	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20				103		103	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		464			269			230			437	
Travel Time (s)		10.5			6.1			5.2			9.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	576	0	0	504	29	42	37	61	24	0	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	576	0	0	533	0	0	79	61	0	64	0
Turn Type	D.P+P	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2						4		4	4		
Detector Phase	1	1 2			2		4	4	4	4	4	
Switch Phase												
Minimum Initial (s)	1.0				1.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	5.0				15.0		8.0	8.0	8.0	8.0	8.0	
Total Split (s)	12.0				25.0		16.0	16.0	16.0	16.0	16.0	
Total Split (%)	22.6%				47.2%		30.2%	30.2%	30.2%	30.2%	30.2%	
Maximum Green (s)	8.0				21.0		11.0	11.0	11.0	11.0	11.0	
Yellow Time (s)	3.0				3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0				1.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0				0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0				4.0			5.0	5.0		5.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0				3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min				Max		None	None	None	None	None	
Act Effct Green (s)	29.1	34.3			21.5			8.0	8.0		8.0	
Actuated g/C Ratio	0.61	0.72			0.45			0.17	0.17		0.17	
v/c Ratio	0.09	0.23			0.23			0.32	0.17		0.20	
Control Delay	4.0	3.8			9.3			22.0	3.2		3.7	
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	
Total Delay	4.0	3.8			9.3			22.0	3.2		3.7	
LOS	A	A			A			C	A		A	
Approach Delay		3.8			9.3			13.8			3.7	
Approach LOS		A			A			B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	5	27			33			21	0		0	
Queue Length 95th (ft)	16	53			57			51	12		14	
Internal Link Dist (ft)		384			189			150			357	
Turn Bay Length (ft)	125											
Base Capacity (vph)	678	2513			2291			352	453		419	
Starvation Cap Reductn	0	0			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.09	0.23			0.23			0.22	0.13		0.15	

Intersection Summary	
Area Type:	Other
Cycle Length: 53	
Actuated Cycle Length: 47.5	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 33.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: State Street/Holmes Avenue & West Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	530	0	0	464	27	39	34	56	22	0	37
Future Volume (vph)	56	530	0	0	464	27	39	34	56	22	0	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95			0.91			1.00	1.00		1.00	
Frt	1.00	1.00			0.99			1.00	0.85		0.92	
Flt Protected	0.95	1.00			1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1770	3539			5044			1815	1583		1674	
Flt Permitted	0.44	1.00			1.00			0.80	1.00		0.84	
Satd. Flow (perm)	826	3539			5044			1489	1583		1438	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	576	0	0	504	29	42	37	61	24	0	40
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	53	0	55	0
Lane Group Flow (vph)	61	576	0	0	522	0	0	79	8	0	9	0
Turn Type	D.P+P	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2						4		4	4		
Actuated Green, G (s)	29.1	33.1			21.5			6.5	6.5		6.5	
Effective Green, g (s)	29.1	33.1			21.5			6.5	6.5		6.5	
Actuated g/C Ratio	0.60	0.68			0.44			0.13	0.13		0.13	
Clearance Time (s)	4.0				4.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0				3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	642	2410			2231			199	211		192	
v/s Ratio Prot	0.01	c0.16			0.10							
v/s Ratio Perm	0.04							c0.05	0.01		0.01	
v/c Ratio	0.10	0.24			0.23			0.40	0.04		0.04	
Uniform Delay, d1	4.1	3.0			8.4			19.3	18.3		18.3	
Progression Factor	1.00	1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.1	0.1			0.2			1.3	0.1		0.1	
Delay (s)	4.1	3.0			8.7			20.6	18.4		18.4	
Level of Service	A	A			A			C	B		B	
Approach Delay (s)		3.1			8.7			19.6			18.4	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	13.0
Intersection Capacity Utilization	33.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	17	610	451	40	40	5
Future Volume (vph)	17	610	451	40	40	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	0.95	1.00	1.00
Frt			0.988		0.986	
Flt Protected	0.950				0.957	
Satd. Flow (prot)	1770	5085	3497	0	1758	0
Flt Permitted	0.950				0.957	
Satd. Flow (perm)	1770	5085	3497	0	1758	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		269	98		279	
Travel Time (s)		6.1	2.2		6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	663	490	43	43	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	18	663	533	0	48	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.1%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	610	451	40	40	5
Future Volume (Veh/h)	17	610	451	40	40	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	663	490	43	43	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		269	98			
pX, platoon unblocked	0.99				0.99	0.99
vC, conflicting volume	533				768	266
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	498				737	228
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				87	99
cM capacity (veh/h)	1047				343	764

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SB 1
Volume Total	18	221	221	221	327	206	48
Volume Left	18	0	0	0	0	0	43
Volume Right	0	0	0	0	0	43	5
cSH	1047	1700	1700	1700	1700	1700	364
Volume to Capacity	0.02	0.13	0.13	0.13	0.19	0.12	0.13
Queue Length 95th (ft)	1	0	0	0	0	0	11
Control Delay (s)	8.5	0.0	0.0	0.0	0.0	0.0	16.4
Lane LOS	A						C
Approach Delay (s)	0.2				0.0		16.4
Approach LOS							C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø1	Ø2	Ø3	Ø4
Lane Configurations										
Traffic Volume (vph)	0	610	0	93	398	0				
Future Volume (vph)	0	610	0	93	398	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	0.76	1.00	0.95	0.97	1.00				
Frt		0.850								
Flt Protected					0.950					
Satd. Flow (prot)	0	3610	0	3539	3433	0				
Flt Permitted					0.950					
Satd. Flow (perm)	0	3610	0	3539	3433	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		2487								
Link Speed (mph)	30			30	30					
Link Distance (ft)	98			190	116					
Travel Time (s)	2.2			4.3	2.6					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	0	663	0	101	433	0				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	663	0	101	433	0				
Turn Type		pt+ov		NA	Prot					
Protected Phases		1 2		1 4	2 3		1	2	3	4
Permitted Phases										
Detector Phase		1 2		1 4	2 3					
Switch Phase										
Minimum Initial (s)							1.0	1.0	1.0	1.0
Minimum Split (s)							6.0	20.0	5.0	19.0
Total Split (s)							14.0	34.0	6.0	19.0
Total Split (%)							19%	47%	8%	26%
Maximum Green (s)							9.0	30.0	2.0	15.0
Yellow Time (s)							3.0	3.0	3.0	3.0
All-Red Time (s)							2.0	1.0	1.0	1.0
Lost Time Adjust (s)										
Total Lost Time (s)										
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Vehicle Extension (s)							3.0	3.0	3.0	3.0
Recall Mode							None	Max	None	None
Walk Time (s)								7.0		4.0
Flash Dont Walk (s)								8.0		11.0
Pedestrian Calls (#/hr)								0		0
Act Effct Green (s)		43.1		22.0	36.1					
Actuated g/C Ratio		0.64		0.33	0.54					
v/c Ratio		0.21		0.09	0.23					
Control Delay		0.1		15.5	0.3					
Queue Delay		0.0		0.0	0.3					
Total Delay		0.2		15.5	0.6					
LOS		A		B	A					
Approach Delay	0.2			15.5	0.6					
Approach LOS	A			B	A					

Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø1	Ø2	Ø3	Ø4
Queue Length 50th (ft)		0		14	0					
Queue Length 95th (ft)		0		29	0					
Internal Link Dist (ft)	18			110	36					
Turn Bay Length (ft)										
Base Capacity (vph)		3207		1127	1844					
Starvation Cap Reductn		0		0	837					
Spillback Cap Reductn		457		0	0					
Storage Cap Reductn		0		0	0					
Reduced v/c Ratio		0.24		0.09	0.43					

Intersection Summary	
Area Type:	Other
Cycle Length: 73	
Actuated Cycle Length: 67.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 1.6	Intersection LOS: A
Intersection Capacity Utilization 22.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: West Main Street

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	610	0	93	398	0
Future Volume (vph)	0	610	0	93	398	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	4.0	
Lane Util. Factor		0.76		0.95	0.97	
Frt		0.85		1.00	1.00	
Flt Protected		1.00		1.00	0.95	
Satd. Flow (prot)		3610		3539	3433	
Flt Permitted		1.00		1.00	0.95	
Satd. Flow (perm)		3610		3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	663	0	101	433	0
RTOR Reduction (vph)	0	228	0	0	0	0
Lane Group Flow (vph)	0	435	0	101	433	0
Turn Type		pt+ov		NA	Prot	
Protected Phases		1 2		1 4	2 3	
Permitted Phases						
Actuated Green, G (s)		44.0		22.0	36.0	
Effective Green, g (s)		44.0		18.0	36.0	
Actuated g/C Ratio		0.66		0.27	0.54	
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)		2370		950	1844	
v/s Ratio Prot		c0.12		c0.03	c0.13	
v/s Ratio Perm						
v/c Ratio		0.18		0.11	0.23	
Uniform Delay, d1		4.5		18.4	8.2	
Progression Factor		1.00		1.00	0.00	
Incremental Delay, d2		0.0		0.0	0.1	
Delay (s)		4.5		18.5	0.1	
Level of Service		A		B	A	
Approach Delay (s)	4.5			18.5	0.1	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	4.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	67.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	WBR	NBL	NBR	SEL	SET	SER	NWL	NWT	NWR	Ø3
Lane Configurations												
Traffic Volume (vph)	63	23	0	0	0	102	483	65	17	398	123	
Future Volume (vph)	63	23	0	0	0	102	483	65	17	398	123	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Frt							0.982				0.850	
Flt Protected		0.950				0.950				0.998		
Satd. Flow (prot)	0	1770	0	0	0	1770	3476	0	0	3532	1583	
Flt Permitted		0.950				0.950				0.927		
Satd. Flow (perm)	0	1770	0	0	0	1770	3476	0	0	3281	1583	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)							35				134	
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		98		240			116			177		
Travel Time (s)		2.2		5.5			2.6			4.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	68	25	0	0	0	111	525	71	18	433	134	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	0	111	596	0	0	451	134	
Turn Type	Prot	Prot				Prot	NA		Perm	NA	custom	
Protected Phases	4	4				1	1 2			2	3 4	3
Permitted Phases									2		2	
Detector Phase	4	4				1	1 2		2	2	3 4	
Switch Phase												
Minimum Initial (s)	1.0	1.0				1.0			1.0	1.0		1.0
Minimum Split (s)	19.0	19.0				6.0			20.0	20.0		5.0
Total Split (s)	19.0	19.0				14.0			34.0	34.0		6.0
Total Split (%)	26.0%	26.0%				19.2%			46.6%	46.6%		8%
Maximum Green (s)	15.0	15.0				9.0			30.0	30.0		2.0
Yellow Time (s)	3.0	3.0				3.0			3.0	3.0		3.0
All-Red Time (s)	1.0	1.0				2.0			1.0	1.0		1.0
Lost Time Adjust (s)		0.0				0.0				0.0		
Total Lost Time (s)		4.0				5.0				4.0		
Lead/Lag	Lag	Lag				Lead			Lag	Lag		Lead
Lead-Lag Optimize?	Yes	Yes				Yes			Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0				3.0			3.0	3.0		3.0
Recall Mode	None	None				None			Max	Max		None
Walk Time (s)	4.0	4.0							7.0	7.0		
Flash Dont Walk (s)	11.0	11.0							8.0	8.0		
Pedestrian Calls (#/hr)	0	0							0	0		
Act Effct Green (s)		9.0				9.0	43.1			30.0	49.1	
Actuated g/C Ratio		0.13				0.13	0.64			0.45	0.73	
v/c Ratio		0.39				0.47	0.27			0.31	0.11	
Control Delay		31.2				34.8	5.5			13.0	0.7	
Queue Delay		0.0				81.6	0.9			0.0	0.0	
Total Delay		31.2				116.4	6.4			13.0	0.7	
LOS		C				F	A			B	A	
Approach Delay		31.2					23.7			10.2		
Approach LOS		C					C			B		

Lane Group	WBL2	WBL	WBR	NBL	NBR	SEL	SET	SER	NWL	NWT	NWR	Ø3
Queue Length 50th (ft)		35				43	43			58	0	
Queue Length 95th (ft)		75				94	78			100	10	
Internal Link Dist (ft)		18		160			36			97		
Turn Bay Length (ft)												
Base Capacity (vph)		396				237	2243			1469	1323	
Starvation Cap Reductn		0				154	1300			0	0	
Spillback Cap Reductn		0				0	0			0	0	
Storage Cap Reductn		0				0	0			0	0	
Reduced v/c Ratio		0.23				1.34	0.63			0.31	0.10	

Intersection Summary	
Area Type:	Other
Cycle Length: 73	
Actuated Cycle Length: 67.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 18.5	Intersection LOS: B
Intersection Capacity Utilization 42.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Church Street & West Main Street

Movement	WBL2	WBL	WBR	NBL	NBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Traffic Volume (vph)	63	23	0	0	0	102	483	65	17	398	123
Future Volume (vph)	63	23	0	0	0	102	483	65	17	398	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0				5.0	5.0			4.0	4.0
Lane Util. Factor		1.00				1.00	0.95			0.95	1.00
Frt		1.00				1.00	0.98			1.00	0.85
Flt Protected		0.95				0.95	1.00			1.00	1.00
Satd. Flow (prot)		1770				1770	3476			3532	1583
Flt Permitted		0.95				0.95	1.00			0.93	1.00
Satd. Flow (perm)		1770				1770	3476			3280	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	25	0	0	0	111	525	71	18	433	134
RTOR Reduction (vph)	0	0	0	0	0	0	12	0	0	0	44
Lane Group Flow (vph)	0	93	0	0	0	111	584	0	0	451	90
Turn Type	Prot	Prot				Prot	NA		Perm	NA	custom
Protected Phases	4	4				1	1 2			2	3 4
Permitted Phases									2		2
Actuated Green, G (s)		9.0				9.0	44.0			30.0	45.0
Effective Green, g (s)		9.0				9.0	44.0			30.0	45.0
Actuated g/C Ratio		0.13				0.13	0.66			0.45	0.67
Clearance Time (s)		4.0				5.0				4.0	
Vehicle Extension (s)		3.0				3.0				3.0	
Lane Grp Cap (vph)		237				237	2282			1468	1157
v/s Ratio Prot		c0.05				c0.06	0.17				c0.02
v/s Ratio Perm										c0.14	0.04
v/c Ratio		0.39				0.47	0.26			0.31	0.08
Uniform Delay, d1		26.5				26.8	4.7			11.8	3.8
Progression Factor		1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2		1.1				1.4	0.1			0.5	0.0
Delay (s)		27.6				28.2	4.8			12.4	3.8
Level of Service		C				C	A			B	A
Approach Delay (s)		27.6		0.0			8.5			10.4	
Approach LOS		C		A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	67.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

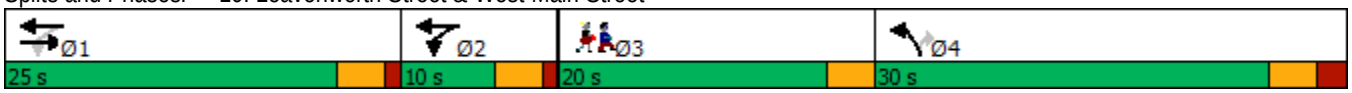
c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3
Lane Configurations							
Traffic Volume (vph)	520	57	58	465	86	87	
Future Volume (vph)	520	57	58	465	86	87	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00	
Frt	0.985					0.850	
Flt Protected			0.950		0.950		
Satd. Flow (prot)	3486	0	1770	3539	1770	1583	
Flt Permitted			0.381		0.950		
Satd. Flow (perm)	3486	0	710	3539	1770	1583	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	13					95	
Link Speed (mph)	30			30	30		
Link Distance (ft)	289			389	436		
Travel Time (s)	6.6			8.8	9.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	565	62	63	505	93	95	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	627	0	63	505	93	95	
Turn Type	NA		D.P+P	NA	Prot	Perm	
Protected Phases	1		2	1 2	4		3
Permitted Phases			1			4	
Detector Phase	1		2	1 2	4	4	
Switch Phase							
Minimum Initial (s)	1.0		1.0		1.0	1.0	1.0
Minimum Split (s)	15.0		6.0		8.0	8.0	20.0
Total Split (s)	25.0		10.0		30.0	30.0	20.0
Total Split (%)	29.4%		11.8%		35.3%	35.3%	24%
Maximum Green (s)	21.0		6.0		25.0	25.0	17.0
Yellow Time (s)	3.0		3.0		3.0	3.0	3.0
All-Red Time (s)	1.0		1.0		2.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		4.0		5.0	5.0	
Lead/Lag	Lead		Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0
Recall Mode	Max		Max		None	None	None
Walk Time (s)							8.0
Flash Dont Walk (s)							9.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	21.4		27.5	32.6	7.8	7.8	
Actuated g/C Ratio	0.47		0.60	0.71	0.17	0.17	
v/c Ratio	0.38		0.11	0.20	0.31	0.27	
Control Delay	9.7		4.5	3.7	20.4	7.2	
Queue Delay	0.0		0.0	0.0	0.0	0.0	
Total Delay	9.7		4.5	3.7	20.4	7.2	
LOS	A		A	A	C	A	
Approach Delay	9.7			3.8	13.8		
Approach LOS	A			A	B		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3
Queue Length 50th (ft)	56		5	23	23	0	
Queue Length 95th (ft)	97		16	44	55	29	
Internal Link Dist (ft)	209			309	356		
Turn Bay Length (ft)							
Base Capacity (vph)	1636		568	2523	985	923	
Starvation Cap Reductn	0		0	0	0	0	
Spillback Cap Reductn	0		0	0	0	0	
Storage Cap Reductn	0		0	0	0	0	
Reduced v/c Ratio	0.38		0.11	0.20	0.09	0.10	

Intersection Summary	
Area Type:	Other
Cycle Length: 85	
Actuated Cycle Length: 45.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 7.8	Intersection LOS: A
Intersection Capacity Utilization 35.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Leavenworth Street & West Main Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	520	57	58	465	86	87
Future Volume (vph)	520	57	58	465	86	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3487		1770	3539	1770	1583
Flt Permitted	1.00		0.38	1.00	0.95	1.00
Satd. Flow (perm)	3487		710	3539	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	565	62	63	505	93	95
RTOR Reduction (vph)	7	0	0	0	0	82
Lane Group Flow (vph)	620	0	63	505	93	13
Turn Type	NA		D.P+P	NA	Prot	Perm
Protected Phases	1		2	1 2	4	
Permitted Phases			1			4
Actuated Green, G (s)	21.4		27.5	31.5	6.3	6.3
Effective Green, g (s)	21.4		27.5	31.5	6.3	6.3
Actuated g/C Ratio	0.46		0.59	0.67	0.13	0.13
Clearance Time (s)	4.0		4.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1594		555	2382	238	213
v/s Ratio Prot	c0.18		0.01	c0.14	c0.05	
v/s Ratio Perm			0.05			0.01
v/c Ratio	0.39		0.11	0.21	0.39	0.06
Uniform Delay, d1	8.4		5.1	2.9	18.5	17.7
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7		0.4	0.2	1.1	0.1
Delay (s)	9.1		5.5	3.1	19.6	17.8
Level of Service	A		A	A	B	B
Approach Delay (s)	9.1			3.4	18.7	
Approach LOS	A			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	46.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

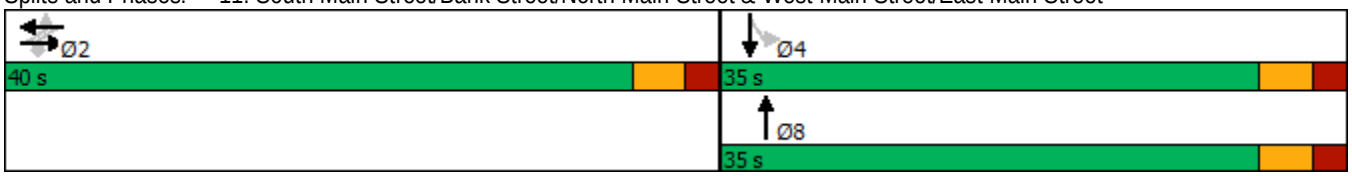
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	603	41	27	481	27	0	252	2	7	333	1
Future Volume (vph)	2	603	41	27	481	27	0	252	2	7	333	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.993			0.999				
Flt Protected					0.998						0.999	
Satd. Flow (prot)	0	3539	1583	0	3507	0	0	3536	0	0	3536	0
Flt Permitted		0.954			0.910						0.944	
Satd. Flow (perm)	0	3376	1583	0	3198	0	0	3536	0	0	3341	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45		9			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		389			245			286			217	
Travel Time (s)		8.8			5.6			6.5			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	655	45	29	523	29	0	274	2	8	362	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	657	45	0	581	0	0	276	0	0	371	0
Turn Type	Perm	NA	Perm	Perm	NA			NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2		2	2						4		
Detector Phase	2	2	2	2	2			8		4	4	
Switch Phase												
Minimum Initial (s)	1.0	1.0	1.0	1.0	1.0			1.0		1.0	1.0	
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0			35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0			35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%			46.7%		46.7%	46.7%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0			30.0		30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0			2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max			None		None	None	
Walk Time (s)	12.0	12.0	12.0	12.0	12.0			12.0		12.0	12.0	
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0			18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)		35.0	35.0		35.0			11.6			11.6	
Actuated g/C Ratio		0.62	0.62		0.62			0.20			0.20	
v/c Ratio		0.31	0.05		0.29			0.38			0.54	
Control Delay		6.0	2.1		5.8			20.8			23.2	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		6.0	2.1		5.8			20.8			23.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A	A		A			C			C	
Approach Delay		5.7			5.8			20.8			23.3	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		45	0		39			42			59	
Queue Length 95th (ft)		85	10		75			71			94	
Internal Link Dist (ft)		309			165			206			137	
Turn Bay Length (ft)			130									
Base Capacity (vph)		2089	997		1982			1876			1772	
Starvation Cap Reductn		0	0		0			0			94	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.31	0.05		0.29			0.15			0.22	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 56.6
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 56.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 11: South Main Street/Bank Street/North Main Street & West Main Street/East Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	603	41	27	481	27	0	252	2	7	333	1
Future Volume (vph)	2	603	41	27	481	27	0	252	2	7	333	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0			5.0	
Lane Util. Factor		0.95	1.00		0.95			0.95			0.95	
Frt		1.00	0.85		0.99			1.00			1.00	
Flt Protected		1.00	1.00		1.00			1.00			1.00	
Satd. Flow (prot)		3539	1583		3504			3535			3534	
Flt Permitted		0.95	1.00		0.91			1.00			0.94	
Satd. Flow (perm)		3376	1583		3196			3535			3341	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	655	45	29	523	29	0	274	2	8	362	1
RTOR Reduction (vph)	0	0	17	0	3	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	657	28	0	578	0	0	275	0	0	371	0
Turn Type	Perm	NA	Perm	Perm	NA			NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2		2	2						4		
Actuated Green, G (s)		35.1	35.1		35.1			11.6			11.6	
Effective Green, g (s)		35.1	35.1		35.1			11.6			11.6	
Actuated g/C Ratio		0.62	0.62		0.62			0.20			0.20	
Clearance Time (s)		5.0	5.0		5.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		2089	979		1978			723			683	
v/s Ratio Prot								0.08				
v/s Ratio Perm		c0.19	0.02		0.18						c0.11	
v/c Ratio		0.31	0.03		0.29			0.38			0.54	
Uniform Delay, d1		5.1	4.2		5.0			19.5			20.2	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		0.4	0.1		0.4			0.3			0.9	
Delay (s)		5.5	4.2		5.4			19.8			21.1	
Level of Service		A	A		A			B			C	
Approach Delay (s)		5.4			5.4			19.8			21.1	
Approach LOS		A			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	56.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	100	43	110	187	324	108	
Future Volume (vph)	100	43	110	187	324	108	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	
Frt		0.850			0.963		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	3408	0	
Flt Permitted	0.950		0.950				
Satd. Flow (perm)	1770	1583	1770	1863	3408	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		47			45		
Link Speed (mph)	30			30	30		
Link Distance (ft)	207			217	246		
Travel Time (s)	4.7			4.9	5.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	109	47	120	203	352	117	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	109	47	120	203	469	0	
Turn Type	Prot	Perm	Prot	NA	NA		
Protected Phases	4		2	1 2	1		3
Permitted Phases		4					
Detector Phase	4	4	2	1 2	1		
Switch Phase							
Minimum Initial (s)	1.0	1.0	1.0		1.0		1.0
Minimum Split (s)	10.0	10.0	20.0		10.0		18.0
Total Split (s)	25.0	25.0	25.0		30.0		18.0
Total Split (%)	25.5%	25.5%	25.5%		30.6%		18%
Maximum Green (s)	21.0	21.0	21.0		26.0		15.0
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0
All-Red Time (s)	1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.0	4.0	4.0		4.0		
Lead/Lag	Lag	Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0
Recall Mode	None	None	Max		None		None
Walk Time (s)							6.0
Flash Dont Walk (s)							9.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	9.1	9.1	21.8	41.0	13.8		
Actuated g/C Ratio	0.17	0.17	0.40	0.76	0.25		
v/c Ratio	0.37	0.16	0.17	0.14	0.52		
Control Delay	26.1	9.2	14.9	3.4	18.4		
Queue Delay	0.0	0.0	0.4	0.5	0.0		
Total Delay	26.1	9.2	15.3	4.0	18.4		
LOS	C	A	B	A	B		
Approach Delay	21.0			8.2	18.4		
Approach LOS	C			A	B		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3
Queue Length 50th (ft)	33	0	26	17	63		
Queue Length 95th (ft)	79	24	71	43	109		
Internal Link Dist (ft)	127			137	166		
Turn Bay Length (ft)							
Base Capacity (vph)	711	664	711	1406	1718		
Starvation Cap Reductn	0	0	295	853	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.15	0.07	0.29	0.37	0.27		

Intersection Summary	
Area Type: Other	
Cycle Length: 98	
Actuated Cycle Length: 54.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 15.3	Intersection LOS: B
Intersection Capacity Utilization 34.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: North Main Street & West Main Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	100	43	110	187	324	108
Future Volume (vph)	100	43	110	187	324	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	1863	3407	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1770	1863	3407	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	47	120	203	352	117
RTOR Reduction (vph)	0	41	0	0	34	0
Lane Group Flow (vph)	109	6	120	203	435	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		2	1 2	1	
Permitted Phases		4				
Actuated Green, G (s)	7.3	7.3	21.8	39.6	13.8	
Effective Green, g (s)	7.3	7.3	21.8	39.6	13.8	
Actuated g/C Ratio	0.13	0.13	0.40	0.72	0.25	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	235	210	702	1343	856	
v/s Ratio Prot	c0.06		c0.07	0.11	c0.13	
v/s Ratio Perm		0.00				
v/c Ratio	0.46	0.03	0.17	0.15	0.51	
Uniform Delay, d1	22.0	20.7	10.7	2.4	17.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.4	0.1	0.5	0.1	0.5	
Delay (s)	23.4	20.8	11.2	2.4	18.1	
Level of Service	C	C	B	A	B	
Approach Delay (s)	22.6			5.7	18.1	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	76	33	63	40	13	6	59	57	14	136	2
Future Volume (vph)	2	76	33	63	40	13	6	59	57	14	136	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.985			0.937			0.998	
Flt Protected		0.999			0.974			0.997			0.995	
Satd. Flow (prot)	0	1786	0	0	1787	0	0	1740	0	0	1850	0
Flt Permitted		0.999			0.974			0.997			0.995	
Satd. Flow (perm)	0	1786	0	0	1787	0	0	1740	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		218			342			176			213	
Travel Time (s)		5.0			7.8			4.0			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	83	36	68	43	14	7	64	62	15	148	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	121	0	0	125	0	0	133	0	0	165	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 32.0%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	76	33	63	40	13	6	59	57	14	136	2
Future Volume (Veh/h)	2	76	33	63	40	13	6	59	57	14	136	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	83	36	68	43	14	7	64	62	15	148	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	324	319	149	366	289	95	150			126		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	324	319	149	366	289	95	150			126		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	86	96	86	93	99	100			99		
cM capacity (veh/h)	580	589	898	500	612	962	1431			1460		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	121	125	133	165
Volume Left	2	68	7	15
Volume Right	36	14	62	2
cSH	656	566	1431	1460
Volume to Capacity	0.18	0.22	0.00	0.01
Queue Length 95th (ft)	17	21	0	1
Control Delay (s)	11.7	13.2	0.4	0.8
Lane LOS	B	B	A	A
Approach Delay (s)	11.7	13.2	0.4	0.8
Approach LOS	B	B		

Intersection Summary				
Average Delay		6.0		
Intersection Capacity Utilization		32.0%	ICU Level of Service	A
Analysis Period (min)		15		

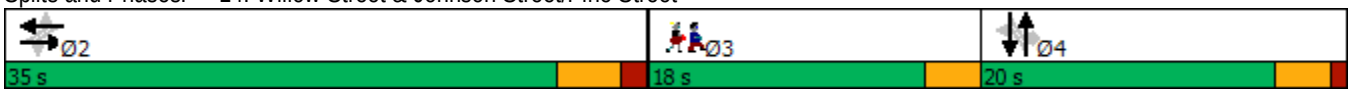
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	115	45	128	42	3	25	226	79	8	230	8
Future Volume (vph)	9	115	45	128	42	3	25	226	79	8	230	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.998				0.850		0.995	
Flt Protected		0.997			0.964			0.995			0.998	
Satd. Flow (prot)	0	1790	0	0	1792	0	0	1853	1583	0	1850	0
Flt Permitted		0.978			0.669			0.953			0.987	
Satd. Flow (perm)	0	1756	0	0	1244	0	0	1775	1583	0	1829	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			1				86		2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			331			761			180	
Travel Time (s)		6.2			7.5			17.3			4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	125	49	139	46	3	27	246	86	9	250	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	184	0	0	188	0	0	273	86	0	268	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		
Detector Phase	2	2		2	2		4	4	4	4	4	
Switch Phase												
Minimum Initial (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		7.0	7.0	7.0	7.0	7.0	
Total Split (s)	35.0	35.0		35.0	35.0		20.0	20.0	20.0	20.0	20.0	
Total Split (%)	47.9%	47.9%		47.9%	47.9%		27.4%	27.4%	27.4%	27.4%	27.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0		16.0	16.0	16.0	16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0			4.0	4.0		4.0	
Lead/Lag							Lag	Lag	Lag	Lag	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		11.1			11.1			12.0	12.0		12.0	
Actuated g/C Ratio		0.34			0.34			0.37	0.37		0.37	
v/c Ratio		0.30			0.44			0.41	0.13		0.39	
Control Delay		8.7			12.8			10.0	3.0		9.6	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		8.7			12.8			10.0	3.0		9.6	
LOS		A			B			B	A		A	
Approach Delay		8.7			12.8			8.3			9.6	
Approach LOS		A			B			A			A	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	25%
Maximum Green (s)	15.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		17			22			29	0		28	
Queue Length 95th (ft)		53			67			82	17		80	
Internal Link Dist (ft)		193			251			681			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1593			1127			903	847		931	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.12			0.17			0.30	0.10		0.29	

Intersection Summary	
Area Type:	Other
Cycle Length: 73	
Actuated Cycle Length: 32.3	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 9.6	Intersection LOS: A
Intersection Capacity Utilization 53.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Willow Street & Johnson Street/Pine Street



Lane Group	Ø3
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	115	45	128	42	3	25	226	79	8	230	8
Future Volume (vph)	9	115	45	128	42	3	25	226	79	8	230	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	
Frt		0.96			1.00			1.00	0.85		1.00	
Flt Protected		1.00			0.96			1.00	1.00		1.00	
Satd. Flow (prot)		1791			1792			1854	1583		1851	
Flt Permitted		0.98			0.67			0.95	1.00		0.99	
Satd. Flow (perm)		1756			1243			1775	1583		1829	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	125	49	139	46	3	27	246	86	9	250	9
RTOR Reduction (vph)	0	20	0	0	1	0	0	0	54	0	1	0
Lane Group Flow (vph)	0	164	0	0	187	0	0	273	32	0	267	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		
Actuated Green, G (s)		11.1			11.1			12.0	12.0		12.0	
Effective Green, g (s)		11.1			11.1			12.0	12.0		12.0	
Actuated g/C Ratio		0.35			0.35			0.37	0.37		0.37	
Clearance Time (s)		5.0			5.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		607			429			663	591		683	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.15			c0.15	0.02		0.15	
v/c Ratio		0.27			0.44			0.41	0.05		0.39	
Uniform Delay, d1		7.6			8.1			7.4	6.4		7.4	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.2			0.7			0.4	0.0		0.4	
Delay (s)		7.8			8.8			7.9	6.5		7.7	
Level of Service		A			A			A	A		A	
Approach Delay (s)		7.8			8.8			7.5			7.7	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	32.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	WBR2	SBL	SBR	SEL	SER
Lane Configurations									
Traffic Volume (vph)	67	158	86	93	21	0	0	0	0
Future Volume (vph)	67	158	86	93	21	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.923						
Flt Protected		0.985							
Satd. Flow (prot)	0	1835	1719	0	0	0	0	0	0
Flt Permitted		0.985							
Satd. Flow (perm)	0	1835	1719	0	0	0	0	0	0
Link Speed (mph)		30	30			30		30	
Link Distance (ft)		98	502			174		190	
Travel Time (s)		2.2	11.4			4.0		4.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	73	172	93	101	23	0	0	0	0
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	245	217	0	0	0	0	0	0
Sign Control		Free	Free			Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 30.2%	ICU Level of Service A
Analysis Period (min) 15	

Appendix D

Intersection Capacity Analysis Worksheets
2019 Existing Traffic Volumes
Weekday Afternoon Peak Hour

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR	SEL	SER	SER2	Ø5	Ø6
Lane Configurations												
Traffic Volume (vph)	689	150	320	362	154	77	56	319	201	118		
Future Volume (vph)	689	150	320	362	154	77	56	319	201	118		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		40	0		0		0	230	0			
Storage Lanes		1	1		1		0	1	1			
Taper Length (ft)			25		25			25				
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00		
Frt		0.850				0.937			0.850			
Flt Protected			0.950		0.950			0.950				
Satd. Flow (prot)	1863	1583	1770	3539	1770	1745	0	1770	1583	0		
Flt Permitted			0.103		0.950			0.950				
Satd. Flow (perm)	1863	1583	192	3539	1770	1745	0	1770	1583	0		
Right Turn on Red		Yes								Yes		
Satd. Flow (RTOR)		89							89			
Link Speed (mph)	30			30		30		30				
Link Distance (ft)	237			379		329		394				
Travel Time (s)	5.4			8.6		7.5		9.0				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	749	163	348	393	167	84	61	347	218	128		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	749	163	348	393	167	145	0	347	346	0		
Turn Type	NA	Perm	pm+pt	NA	Split	NA		Prot	Prot			
Protected Phases	1		2	1 2	3	3		4	4		5	6
Permitted Phases		1	1 2									
Minimum Split (s)	14.0	14.0	7.0		13.0	13.0		13.0	13.0		22.0	6.0
Total Split (s)	43.0	43.0	21.0		22.0	22.0		24.0	24.0		43.0	21.0
Total Split (%)	39.1%	39.1%	19.1%		20.0%	20.0%		21.8%	21.8%		39%	19%
Maximum Green (s)	39.0	39.0	17.0		18.0	18.0		20.0	20.0		39.0	17.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0			
Total Lost Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0			
Lead/Lag	Lead	Lead	Lag		Lead	Lead		Lag	Lag		Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes
Act Effct Green (s)	39.0	39.0	56.0	60.0	18.0	18.0		20.0	20.0			
Actuated g/C Ratio	0.35	0.35	0.51	0.55	0.16	0.16		0.18	0.18			
v/c Ratio	1.13	0.26	1.02	0.20	0.58	0.51		1.08	0.96			
Control Delay	112.5	13.0	78.3	5.7	51.4	49.0		116.8	72.7			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay	112.5	13.0	78.3	5.7	51.4	49.0		116.8	72.7			
LOS	F	B	E	A	D	D		F	E			
Approach Delay	94.7			39.8		50.3		94.8				
Approach LOS	F			D		D		F				
Queue Length 50th (ft)	~617	35	~219	26	110	95		~274	187			
Queue Length 95th (ft)	#848	85	m#335	m31	182	160		#455	#373			
Internal Link Dist (ft)	157			299		249		314				
Turn Bay Length (ft)		40						230				
Base Capacity (vph)	660	618	341	1930	289	285		321	360			

Lane Group	Ø7	Ø8
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	7	8
Permitted Phases		
Minimum Split (s)	18.0	22.5
Total Split (s)	20.0	26.0
Total Split (%)	18%	24%
Maximum Green (s)	16.0	22.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	1.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR	SEL	SER	SER2	Ø5	Ø6
Starvation Cap Reductn	0	0	0	0	0	0		0	0			
Spillback Cap Reductn	0	0	0	0	0	0		0	0			
Storage Cap Reductn	0	0	0	0	0	0		0	0			
Reduced v/c Ratio	1.13	0.26	1.02	0.20	0.58	0.51		1.08	0.96			

Intersection Summary

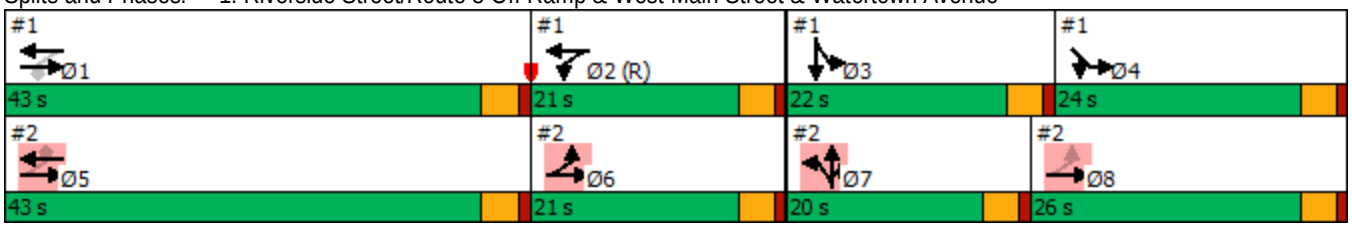
Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Green
Natural Cycle: 140
Control Type: Pretimed
Maximum v/c Ratio: 2.41
Intersection Signal Delay: 74.2 Intersection LOS: E
Intersection Capacity Utilization 94.5% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Street/Route 8 Off Ramp & West Main Street & Watertown Avenue



Lane Group	Ø7	Ø8
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Movement	EBT	EBR	WBL	WBT	SBL	SBT	SBR	SEL	SER	SER2
Lane Configurations										
Traffic Volume (vph)	689	150	320	362	154	77	56	319	201	118
Future Volume (vph)	689	150	320	362	154	77	56	319	201	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00		1.00	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	0.94		1.00	0.85	
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1863	1583	1770	3539	1770	1745		1770	1583	
Flt Permitted	1.00	1.00	0.10	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1863	1583	191	3539	1770	1745		1770	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	749	163	348	393	167	84	61	347	218	128
RTOR Reduction (vph)	0	57	0	0	0	0	0	0	73	0
Lane Group Flow (vph)	749	106	348	393	167	145	0	347	273	0
Turn Type	NA	Perm	pm+pt	NA	Split	NA		Prot	Prot	
Protected Phases	1		2	1 2	3	3		4	4	
Permitted Phases		1	1 2							
Actuated Green, G (s)	39.0	39.0	56.0	60.0	18.0	18.0		20.0	20.0	
Effective Green, g (s)	39.0	39.0	56.0	60.0	18.0	18.0		20.0	20.0	
Actuated g/C Ratio	0.35	0.35	0.51	0.55	0.16	0.16		0.18	0.18	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	660	561	341	1930	289	285		321	287	
v/s Ratio Prot	c0.40		c0.16	0.11	c0.09	0.08		c0.20	0.17	
v/s Ratio Perm		0.07	0.36							
v/c Ratio	1.13	0.19	1.02	0.20	0.58	0.51		1.08	0.95	
Uniform Delay, d1	35.5	24.6	43.1	12.8	42.5	42.0		45.0	44.5	
Progression Factor	1.00	1.00	0.71	0.43	1.00	1.00		1.00	1.00	
Incremental Delay, d2	78.4	0.7	47.4	0.2	8.2	6.4		73.5	42.1	
Delay (s)	113.9	25.3	78.1	5.7	50.7	48.3		118.5	86.6	
Level of Service	F	C	E	A	D	D		F	F	
Approach Delay (s)	98.1			39.7		49.6		102.6		
Approach LOS	F			D		D		F		

Intersection Summary			
HCM 2000 Control Delay	77.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	850	0	0	516	680	74	599	133	0	0	0
Future Volume (vph)	299	850	0	0	516	680	74	599	133	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	1863	1583	3433	1863	1583	0	0	0
Flt Permitted	0.454						0.950					
Satd. Flow (perm)	846	3539	0	0	1863	1583	3433	1863	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						396			94			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		379			839			247			271	
Travel Time (s)		8.6			19.1			5.6			6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	325	924	0	0	561	739	80	651	145	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	325	924	0	0	561	739	80	651	145	0	0	0
Turn Type	custom	NA			NA	Perm	Split	NA	Prot			
Protected Phases	6	5 6 8			5		7	7	7			
Permitted Phases	5 8					5						
Minimum Split (s)	6.0				22.0	22.0	18.0	18.0	18.0			
Total Split (s)	21.0				43.0	43.0	20.0	20.0	20.0			
Total Split (%)	19.1%				39.1%	39.1%	18.2%	18.2%	18.2%			
Maximum Green (s)	17.0				39.0	39.0	16.0	16.0	16.0			
Yellow Time (s)	3.0				3.0	3.0	3.0	3.0	3.0			
All-Red Time (s)	1.0				1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	0.0				0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)	4.0				4.0	4.0	4.0	4.0	4.0			
Lead/Lag	Lag				Lead	Lead	Lead	Lead	Lead			
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes			
Act Effct Green (s)	82.0	86.0			39.0	39.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.75	0.78			0.35	0.35	0.15	0.15	0.15			
v/c Ratio	0.42	0.33			0.85	0.91	0.16	2.41	0.47			
Control Delay	1.4	1.0			46.7	31.7	42.1	668.8	22.4			
Queue Delay	0.1	0.9			0.4	0.0	0.0	0.0	0.0			
Total Delay	1.6	2.0			47.1	31.7	42.1	668.8	22.4			
LOS	A	A			D	C	D	F	C			
Approach Delay		1.9			38.4			504.6				
Approach LOS		A			D			F				
Queue Length 50th (ft)	23	41			363	260	25	~759	32			
Queue Length 95th (ft)	m13	m20			#553	#525	48	#982	94			
Internal Link Dist (ft)		299			759			167			191	
Turn Bay Length (ft)												
Base Capacity (vph)	773	2766			660	816	499	270	310			
Starvation Cap Reductn	57	1474			0	0	0	0	0			
Spillback Cap Reductn	0	0			9	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			

Lane Group	Ø1	Ø2	Ø3	Ø4	Ø8
Lane Configurations					
Traffic Volume (vph)					
Future Volume (vph)					
Ideal Flow (vphpl)					
Lane Util. Factor					
Frt					
Flt Protected					
Satd. Flow (prot)					
Flt Permitted					
Satd. Flow (perm)					
Right Turn on Red					
Satd. Flow (RTOR)					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Peak Hour Factor					
Adj. Flow (vph)					
Shared Lane Traffic (%)					
Lane Group Flow (vph)					
Turn Type					
Protected Phases	1	2	3	4	8
Permitted Phases					
Minimum Split (s)	14.0	7.0	13.0	13.0	22.5
Total Split (s)	43.0	21.0	22.0	24.0	26.0
Total Split (%)	39%	19%	20%	22%	24%
Maximum Green (s)	39.0	17.0	18.0	20.0	22.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes
Act Effct Green (s)					
Actuated g/C Ratio					
v/c Ratio					
Control Delay					
Queue Delay					
Total Delay					
LOS					
Approach Delay					
Approach LOS					
Queue Length 50th (ft)					
Queue Length 95th (ft)					
Internal Link Dist (ft)					
Turn Bay Length (ft)					
Base Capacity (vph)					
Starvation Cap Reductn					
Spillback Cap Reductn					
Storage Cap Reductn					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Reduced v/c Ratio	0.45	0.72			0.86	0.91	0.16	2.41	0.47			

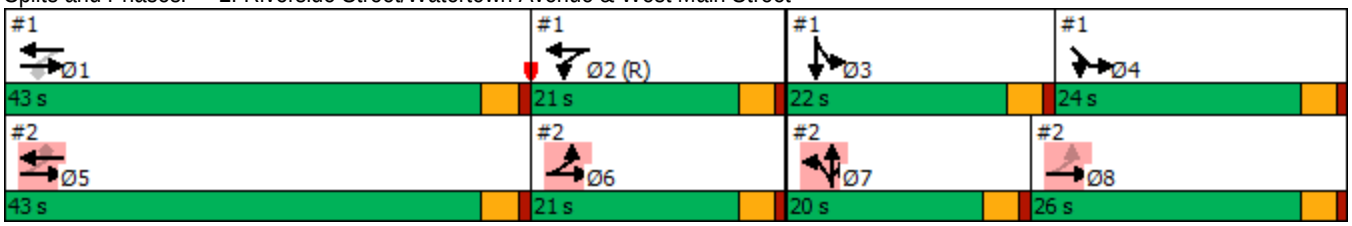
Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Pretimed	
Maximum v/c Ratio: 2.41	
Intersection Signal Delay: 144.3	Intersection LOS: F
Intersection Capacity Utilization 100.2%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Street/Watertown Avenue & West Main Street



Lane Group	Ø1	Ø2	Ø3	Ø4	Ø8
Reduced v/c Ratio					

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	850	0	0	516	680	74	599	133	0	0	0
Future Volume (vph)	299	850	0	0	516	680	74	599	133	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	0.95			1.00	1.00	0.97	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	3539			1863	1583	3433	1863	1583			
Flt Permitted	0.45	1.00			1.00	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	845	3539			1863	1583	3433	1863	1583			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	325	924	0	0	561	739	80	651	145	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	256	0	0	80	0	0	0
Lane Group Flow (vph)	325	924	0	0	561	483	80	651	65	0	0	0
Turn Type	custom	NA			NA	Perm	Split	NA	Prot			
Protected Phases	6	5 6 8			5		7	7	7			
Permitted Phases	5 8					5						
Actuated Green, G (s)	82.0	86.0			39.0	39.0	16.0	16.0	16.0			
Effective Green, g (s)	82.0	86.0			39.0	39.0	16.0	16.0	16.0			
Actuated g/C Ratio	0.75	0.78			0.35	0.35	0.15	0.15	0.15			
Clearance Time (s)	4.0				4.0	4.0	4.0	4.0	4.0			
Lane Grp Cap (vph)	772	2766			660	561	499	270	230			
v/s Ratio Prot	c0.07	0.26			0.30		0.02	c0.35	0.04			
v/s Ratio Perm	c0.25					c0.31						
v/c Ratio	0.42	0.33			0.85	0.86	0.16	2.41	0.28			
Uniform Delay, d1	5.8	3.5			32.8	33.0	41.1	47.0	41.9			
Progression Factor	0.28	0.28			1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.2	0.0			13.0	15.9	0.7	646.2	3.0			
Delay (s)	1.7	1.0			45.8	48.9	41.8	693.2	44.9			
Level of Service	A	A			D	D	D	F	D			
Approach Delay (s)		1.2			47.6			526.4			0.0	
Approach LOS		A			D			F			A	

Intersection Summary			
HCM 2000 Control Delay	153.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	724	12	7	817	286	8	10	4	315	9	327
Future Volume (vph)	239	724	12	7	817	286	8	10	4	315	9	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.850			0.850
Flt Protected		0.988		0.950			0.950				0.954	
Satd. Flow (prot)	0	3490	0	1770	1863	1583	1770	1863	1583	0	1777	1583
Flt Permitted		0.548		0.178			0.384				0.724	
Satd. Flow (perm)	0	1936	0	332	1863	1583	715	1863	1583	0	1349	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				159			107			355
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		839			338			196			228	
Travel Time (s)		19.1			7.7			4.5			5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	787	13	8	888	311	9	11	4	342	10	355
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1060	0	8	888	311	9	11	4	0	352	355
Turn Type	custom	NA		custom	NA	custom	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	1 2		3	2 3			5			5	
Permitted Phases	2			2		2	5		5	5		5
Detector Phase	1	1 2		3	2 3	2	5	5	5	5	5	5
Switch Phase												
Minimum Initial (s)	1.0			1.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	5.0			5.0		22.5	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	6.0			5.0		40.0	45.0	45.0	45.0	45.0	45.0	45.0
Total Split (%)	4.9%			4.1%		32.8%	36.9%	36.9%	36.9%	36.9%	36.9%	36.9%
Maximum Green (s)	3.0			1.0		35.0	40.0	40.0	40.0	40.0	40.0	40.0
Yellow Time (s)	3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0			1.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				0.0		0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)				4.0		5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead			Lead		Lag	Lag	Lag	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None			None		Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		40.3		37.3	35.3	35.3	28.8	28.8	28.8		28.8	28.8
Actuated g/C Ratio		0.47		0.44	0.41	0.41	0.34	0.34	0.34		0.34	0.34
v/c Ratio		1.68dl		0.05	1.15	0.42	0.04	0.02	0.01		0.77	0.46
Control Delay		81.7		16.3	110.3	11.5	17.8	17.2	0.0		37.1	4.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		81.7		16.3	110.3	11.5	17.8	17.2	0.0		37.1	4.2
LOS		F		B	F	B	B	B	A		D	A
Approach Delay		81.7			84.2			14.5			20.6	
Approach LOS		F			F			B			C	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	21%
Maximum Green (s)	23.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	16.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		~246		2	~573	52	3	4	0		165	0
Queue Length 95th (ft)		#557		11	#933	139	13	14	0		265	52
Internal Link Dist (ft)		759			258			116			148	
Turn Bay Length (ft)												
Base Capacity (vph)		970		162	770	748	337	880	804		637	935
Starvation Cap Reductn		0		0	0	0	0	0	0		0	0
Spillback Cap Reductn		0		0	0	0	0	0	0		0	0
Storage Cap Reductn		0		0	0	0	0	0	0		0	0
Reduced v/c Ratio		1.09		0.05	1.15	0.42	0.03	0.01	0.00		0.55	0.38

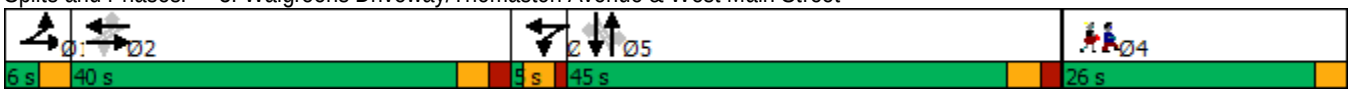
Intersection Summary	
Area Type:	Other
Cycle Length: 122	
Actuated Cycle Length: 85.3	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 67.7	Intersection LOS: E
Intersection Capacity Utilization 106.6%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 3: Walgreens Driveway/Thomaston Avenue & West Main Street



Lane Group	Ø4
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	724	12	7	817	286	8	10	4	315	9	327
Future Volume (vph)	239	724	12	7	817	286	8	10	4	315	9	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0		4.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor		0.95		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Frt		1.00		1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85
Flt Protected		0.99		0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)		3490		1770	1863	1583	1770	1863	1583		1776	1583
Flt Permitted		0.55		0.18	1.00	1.00	0.38	1.00	1.00		0.72	1.00
Satd. Flow (perm)		1936		332	1863	1583	716	1863	1583		1350	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	260	787	13	8	888	311	9	11	4	342	10	355
RTOR Reduction (vph)	0	1	0	0	0	93	0	0	3	0	0	235
Lane Group Flow (vph)	0	1059	0	8	888	218	9	11	1	0	352	120
Turn Type	custom	NA		custom	NA	custom	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	1 2		3	2 3			5			5	
Permitted Phases	2			2		2	5		5	5		5
Actuated Green, G (s)		38.3		36.3	41.3	35.3	28.8	28.8	28.8		28.8	28.8
Effective Green, g (s)		38.3		36.3	41.3	35.3	28.8	28.8	28.8		28.8	28.8
Actuated g/C Ratio		0.45		0.43	0.49	0.41	0.34	0.34	0.34		0.34	0.34
Clearance Time (s)				4.0		5.0	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)				3.0		3.0	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		926		158	904	656	242	630	535		456	535
v/s Ratio Prot		c0.04		0.00	c0.48			0.01				
v/s Ratio Perm		c0.47		0.02		0.14	0.01		0.00		c0.26	0.08
v/c Ratio		1.68dl		0.05	0.98	0.33	0.04	0.02	0.00		0.77	0.22
Uniform Delay, d1		23.4		22.1	21.5	16.9	18.9	18.7	18.6		25.2	20.2
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2		77.7		0.1	25.5	0.3	0.1	0.0	0.0		7.9	0.2
Delay (s)		101.1		22.2	47.0	17.2	18.9	18.7	18.6		33.1	20.4
Level of Service		F		C	D	B	B	B	B		C	C
Approach Delay (s)		101.1			39.2			18.8			26.7	
Approach LOS		F			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	58.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	85.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	213	908	958	106	95	187
Future Volume (vph)	213	908	958	106	95	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			0	100	0
Storage Lanes	1			0	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.987			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1839	0	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1839	0	1770	1583
Link Speed (mph)		30	30		30	
Link Distance (ft)		169	487		207	
Travel Time (s)		3.8	11.1		4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	987	1041	115	103	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	232	987	1156	0	103	203
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	213	908	958	106	95	187
Future Volume (Veh/h)	213	908	958	106	95	187
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	232	987	1041	115	103	203
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		650	921			
pX, platoon unblocked	0.80				0.82	0.80
vC, conflicting volume	1156				2550	1098
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1068				2222	996
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	55				0	14
cM capacity (veh/h)	520				22	236

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	232	987	1156	103	203
Volume Left	232	0	0	103	0
Volume Right	0	0	115	0	203
cSH	520	1700	1700	22	236
Volume to Capacity	0.45	0.58	0.68	4.75	0.86
Queue Length 95th (ft)	57	0	0	Err	172
Control Delay (s)	17.4	0.0	0.0	Err	71.5
Lane LOS	C			F	F
Approach Delay (s)	3.3		0.0	3413.1	
Approach LOS				F	

Intersection Summary			
Average Delay	391.1		
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	597	322	128	502	131	395	290	122	87	256	187
Future Volume (vph)	127	597	322	128	502	131	395	290	122	87	256	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.954			0.969				0.850			0.850
Flt Protected		0.994		0.950				0.972			0.987	
Satd. Flow (prot)	0	3356	0	1770	3429	0	0	1811	1583	0	1839	1583
Flt Permitted		0.757		0.167				0.343			0.141	
Satd. Flow (perm)	0	2556	0	311	3429	0	0	639	1583	0	263	1583
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)									111			203
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		434			464			449			761	
Travel Time (s)		9.9			10.5			10.2			17.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	649	350	139	546	142	429	315	133	95	278	203
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1137	0	139	688	0	0	744	133	0	373	203
Turn Type	Perm	NA		D.P+P	NA		D.P+P	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	1 2		4	4 5			5	
Permitted Phases	2			2			5		4 5	5		5
Detector Phase	2	2		1	1 2		4	4 5	4 5	5	5	5
Switch Phase												
Minimum Initial (s)	1.0	1.0		1.0			1.0			1.0	1.0	1.0
Minimum Split (s)	15.0	15.0		6.0			6.0			8.0	8.0	8.0
Total Split (s)	30.0	30.0		10.0			10.0			25.0	25.0	25.0
Total Split (%)	31.6%	31.6%		10.5%			10.5%			26.3%	26.3%	26.3%
Maximum Green (s)	24.0	24.0		7.0			6.0			19.0	19.0	19.0
Yellow Time (s)	3.0	3.0		3.0			3.0			3.0	3.0	3.0
All-Red Time (s)	3.0	3.0		0.0			1.0			3.0	3.0	3.0
Lost Time Adjust (s)		0.0		0.0							0.0	0.0
Total Lost Time (s)		6.0		3.0							6.0	6.0
Lead/Lag	Lag	Lag		Lead			Lag					
Lead-Lag Optimize?	Yes	Yes		Yes			Yes					
Vehicle Extension (s)	3.0	3.0		3.0			3.0			3.0	3.0	3.0
Recall Mode	Max	Max		None			None			None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		24.0		34.0	37.0			27.0	31.0		19.0	19.0
Actuated g/C Ratio		0.32		0.45	0.49			0.36	0.41		0.25	0.25
v/c Ratio		1.39		0.50	0.41			2.30	0.18		5.65	0.37
Control Delay		209.0		17.2	13.0			614.6	4.9		2135.4	5.9
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		209.0		17.2	13.0			614.6	4.9		2135.4	5.9
LOS		F		B	B			F	A		F	A
Approach Delay		209.0			13.7			522.1			1384.9	
Approach LOS		F			B			F			F	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		~377		34	100			~574	6		~316	0
Queue Length 95th (ft)		#498		64	140			#778	36		#479	48
Internal Link Dist (ft)		354			384			369			681	
Turn Bay Length (ft)												
Base Capacity (vph)		817		277	1691			323	719		66	552
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		1.39		0.50	0.41			2.30	0.18		5.65	0.37

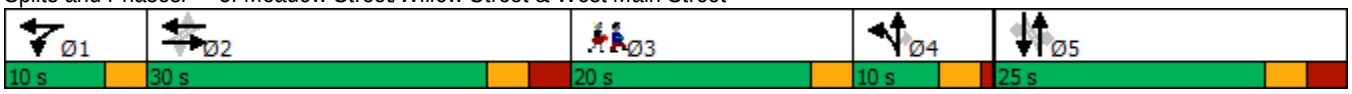
Intersection Summary

Area Type: Other
Cycle Length: 95
Actuated Cycle Length: 75
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 5.65
Intersection Signal Delay: 440.3 Intersection LOS: F
Intersection Capacity Utilization 120.6% ICU Level of Service H
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Meadow Street/Willow Street & West Main Street



Lane Group	Ø3
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	597	322	128	502	131	395	290	122	87	256	187
Future Volume (vph)	127	597	322	128	502	131	395	290	122	87	256	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		3.0	3.0			4.0	4.0		6.0	6.0
Lane Util. Factor		0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frt		0.95		1.00	0.97			1.00	0.85		1.00	0.85
Flt Protected		0.99		0.95	1.00			0.97	1.00		0.99	1.00
Satd. Flow (prot)		3355		1770	3430			1811	1583		1839	1583
Flt Permitted		0.76		0.17	1.00			0.34	1.00		0.14	1.00
Satd. Flow (perm)		2555		310	3430			638	1583		263	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	649	350	139	546	142	429	315	133	95	278	203
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	68	0	0	152
Lane Group Flow (vph)	0	1137	0	139	688	0	0	744	65	0	373	51
Turn Type	Perm	NA		D.P+P	NA		D.P+P	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	1 2		4	4 5			5	
Permitted Phases	2			2			5		4 5	5		5
Actuated Green, G (s)		24.0		31.0	34.0			25.0	29.0		19.0	19.0
Effective Green, g (s)		24.0		31.0	34.0			25.0	29.0		19.0	19.0
Actuated g/C Ratio		0.32		0.41	0.45			0.33	0.39		0.25	0.25
Clearance Time (s)		6.0		3.0							6.0	6.0
Vehicle Extension (s)		3.0		3.0							3.0	3.0
Lane Grp Cap (vph)		817		264	1554			306	612		66	401
v/s Ratio Prot				c0.05	0.20			c0.19				
v/s Ratio Perm		c0.44		0.17				0.61	0.04		c1.42	0.03
v/c Ratio		1.39		0.53	0.44			2.43	0.11		5.65	0.13
Uniform Delay, d1		25.5		16.8	14.0			25.0	14.7		28.0	21.6
Progression Factor		1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2		183.8		1.9	0.2			654.0	0.1		2125.8	0.1
Delay (s)		209.3		18.6	14.2			679.0	14.8		2153.8	21.8
Level of Service		F		B	B			F	B		F	C
Approach Delay (s)		209.3			15.0			578.2			1402.4	
Approach LOS		F			B			F			F	

Intersection Summary			
HCM 2000 Control Delay	458.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.98		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	120.6%	ICU Level of Service	H
Analysis Period (min)	15		

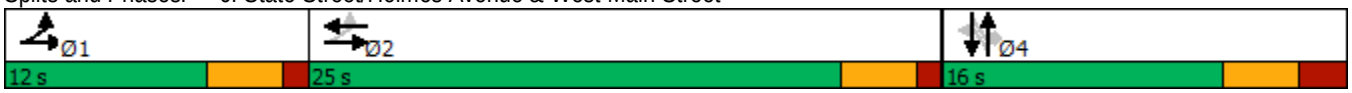
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	721	0	0	671	18	43	57	25	74	0	57
Future Volume (vph)	68	721	0	0	671	18	43	57	25	74	0	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.996				0.850		0.941	
Flt Protected	0.950							0.979			0.973	
Satd. Flow (prot)	1770	3539	0	0	5065	0	0	1824	1583	0	1706	0
Flt Permitted	0.339							0.854			0.765	
Satd. Flow (perm)	631	3539	0	0	5065	0	0	1591	1583	0	1341	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9				103		103	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		464			264			230			199	
Travel Time (s)		10.5			6.0			5.2			4.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	784	0	0	729	20	47	62	27	80	0	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	784	0	0	749	0	0	109	27	0	142	0
Turn Type	D.P+P	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2						4		4	4		
Detector Phase	1	1 2			2		4	4	4	4	4	
Switch Phase												
Minimum Initial (s)	1.0				1.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	5.0				15.0		8.0	8.0	8.0	8.0	8.0	
Total Split (s)	12.0				25.0		16.0	16.0	16.0	16.0	16.0	
Total Split (%)	22.6%				47.2%		30.2%	30.2%	30.2%	30.2%	30.2%	
Maximum Green (s)	8.0				21.0		11.0	11.0	11.0	11.0	11.0	
Yellow Time (s)	3.0				3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0				1.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0				0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.0				4.0			5.0	5.0		5.0	
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0				3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min				Max		None	None	None	None	None	
Act Effct Green (s)	29.4	34.5			21.4			8.5	8.5		8.5	
Actuated g/C Ratio	0.61	0.71			0.44			0.18	0.18		0.18	
v/c Ratio	0.13	0.31			0.33			0.39	0.07		0.44	
Control Delay	4.4	4.3			10.4			23.0	0.4		12.4	
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	
Total Delay	4.4	4.3			10.4			23.0	0.4		12.4	
LOS	A	A			B			C	A		B	
Approach Delay		4.3			10.4			18.5			12.4	
Approach LOS		A			B			B			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	6	43			52			29	0		10	
Queue Length 95th (ft)	19	76			82			66	0		49	
Internal Link Dist (ft)		384			184			150			119	
Turn Bay Length (ft)	125											
Base Capacity (vph)	579	2467			2252			369	447		390	
Starvation Cap Reductn	0	0			0			0	0		0	
Spillback Cap Reductn	0	0			0			0	0		0	
Storage Cap Reductn	0	0			0			0	0		0	
Reduced v/c Ratio	0.13	0.32			0.33			0.30	0.06		0.36	

Intersection Summary	
Area Type:	Other
Cycle Length: 53	
Actuated Cycle Length: 48.3	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 8.4	Intersection LOS: A
Intersection Capacity Utilization 42.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: State Street/Holmes Avenue & West Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	721	0	0	671	18	43	57	25	74	0	57
Future Volume (vph)	68	721	0	0	671	18	43	57	25	74	0	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			5.0	5.0		5.0	
Lane Util. Factor	1.00	0.95			0.91			1.00	1.00		1.00	
Frt	1.00	1.00			1.00			1.00	0.85		0.94	
Flt Protected	0.95	1.00			1.00			0.98	1.00		0.97	
Satd. Flow (prot)	1770	3539			5065			1823	1583		1705	
Flt Permitted	0.34	1.00			1.00			0.85	1.00		0.77	
Satd. Flow (perm)	631	3539			5065			1590	1583		1342	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	784	0	0	729	20	47	62	27	80	0	62
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	23	0	88	0
Lane Group Flow (vph)	74	784	0	0	744	0	0	109	4	0	54	0
Turn Type	D.P+P	NA			NA		Perm	NA	Perm	Perm	NA	
Protected Phases	1	1 2			2			4			4	
Permitted Phases	2						4		4	4		
Actuated Green, G (s)	29.3	33.3			21.4			7.0	7.0		7.0	
Effective Green, g (s)	29.3	33.3			21.4			7.0	7.0		7.0	
Actuated g/C Ratio	0.59	0.68			0.43			0.14	0.14		0.14	
Clearance Time (s)	4.0				4.0			5.0	5.0		5.0	
Vehicle Extension (s)	3.0				3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)	557	2390			2198			225	224		190	
v/s Ratio Prot	0.02	c0.22			0.15							
v/s Ratio Perm	0.06							c0.07	0.00		0.04	
v/c Ratio	0.13	0.33			0.34			0.48	0.02		0.28	
Uniform Delay, d1	4.2	3.3			9.3			19.5	18.2		18.9	
Progression Factor	1.00	1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.1	0.1			0.4			1.6	0.0		0.8	
Delay (s)	4.4	3.4			9.7			21.1	18.2		19.7	
Level of Service	A	A			A			C	B		B	
Approach Delay (s)		3.5			9.7			20.6			19.7	
Approach LOS		A			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	49.3	Sum of lost time (s)	13.0
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	36	827	616	121	59	28
Future Volume (vph)	36	827	616	121	59	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	0.95	1.00	1.00
Frt			0.975		0.957	
Flt Protected	0.950				0.967	
Satd. Flow (prot)	1770	5085	3451	0	1724	0
Flt Permitted	0.950				0.967	
Satd. Flow (perm)	1770	5085	3451	0	1724	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		264	120		271	
Travel Time (s)		6.0	2.7		6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	899	670	132	64	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	899	802	0	94	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.2%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	827	616	121	59	28
Future Volume (Veh/h)	36	827	616	121	59	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	39	899	670	132	64	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		264	120			
pX, platoon unblocked	0.96				0.97	0.96
vC, conflicting volume	802				1114	401
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	722				1020	306
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				70	95
cM capacity (veh/h)	845				215	665

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SB 1
Volume Total	39	300	300	300	447	355	94
Volume Left	39	0	0	0	0	0	64
Volume Right	0	0	0	0	0	132	30
cSH	845	1700	1700	1700	1700	1700	274
Volume to Capacity	0.05	0.18	0.18	0.18	0.26	0.21	0.34
Queue Length 95th (ft)	4	0	0	0	0	0	37
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	0.0	24.8
Lane LOS	A						C
Approach Delay (s)	0.4				0.0		24.8
Approach LOS							C

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø1	Ø2	Ø3	Ø4
Lane Configurations										
Traffic Volume (vph)	0	827	0	171	566	0				
Future Volume (vph)	0	827	0	171	566	0				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Util. Factor	1.00	0.76	1.00	0.95	0.97	1.00				
Frt		0.850								
Flt Protected					0.950					
Satd. Flow (prot)	0	3610	0	3539	3433	0				
Flt Permitted					0.950					
Satd. Flow (perm)	0	3610	0	3539	3433	0				
Right Turn on Red		Yes				Yes				
Satd. Flow (RTOR)		2487								
Link Speed (mph)	30			30	30					
Link Distance (ft)	120			184	92					
Travel Time (s)	2.7			4.2	2.1					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				
Adj. Flow (vph)	0	899	0	186	615	0				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	899	0	186	615	0				
Turn Type		pt+ov		NA	Prot					
Protected Phases		1 2		1 4	2 3		1	2	3	4
Permitted Phases										
Detector Phase		1 2		1 4	2 3					
Switch Phase										
Minimum Initial (s)							1.0	1.0	1.0	1.0
Minimum Split (s)							6.0	19.0	5.0	19.0
Total Split (s)							14.0	34.0	6.0	19.0
Total Split (%)							19%	47%	8%	26%
Maximum Green (s)							9.0	30.0	2.0	15.0
Yellow Time (s)							3.0	3.0	3.0	3.0
All-Red Time (s)							2.0	1.0	1.0	1.0
Lost Time Adjust (s)										
Total Lost Time (s)										
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Vehicle Extension (s)							3.0	3.0	3.0	3.0
Recall Mode							None	Max	None	None
Walk Time (s)								7.0		4.0
Flash Dont Walk (s)								8.0		11.0
Pedestrian Calls (#/hr)								0		0
Act Effct Green (s)		43.1		22.2	36.0					
Actuated g/C Ratio		0.64		0.33	0.53					
v/c Ratio		0.28		0.16	0.33					
Control Delay		0.2		16.1	0.5					
Queue Delay		0.0		0.0	0.0					
Total Delay		0.3		16.1	0.5					
LOS		A		B	A					
Approach Delay	0.3			16.1	0.5					
Approach LOS	A			B	A					

Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø1	Ø2	Ø3	Ø4
Queue Length 50th (ft)		0		27	0					
Queue Length 95th (ft)		0		48	0					
Internal Link Dist (ft)	40			104	12					
Turn Bay Length (ft)										
Base Capacity (vph)		3205		1124	1838					
Starvation Cap Reductn		0		0	0					
Spillback Cap Reductn		567		0	0					
Storage Cap Reductn		0		0	0					
Reduced v/c Ratio		0.34		0.17	0.33					

Intersection Summary	
Area Type:	Other
Cycle Length: 73	
Actuated Cycle Length: 67.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 2.1	Intersection LOS: A
Intersection Capacity Utilization 28.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: West Main Street

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	0	827	0	171	566	0
Future Volume (vph)	0	827	0	171	566	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	4.0	
Lane Util. Factor		0.76		0.95	0.97	
Frt		0.85		1.00	1.00	
Flt Protected		1.00		1.00	0.95	
Satd. Flow (prot)		3610		3539	3433	
Flt Permitted		1.00		1.00	0.95	
Satd. Flow (perm)		3610		3539	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	899	0	186	615	0
RTOR Reduction (vph)	0	310	0	0	0	0
Lane Group Flow (vph)	0	589	0	186	615	0
Turn Type		pt+ov		NA	Prot	
Protected Phases		1 2		1 4	2 3	
Permitted Phases						
Actuated Green, G (s)		44.0		22.2	36.0	
Effective Green, g (s)		44.0		18.2	36.0	
Actuated g/C Ratio		0.65		0.27	0.54	
Clearance Time (s)						
Vehicle Extension (s)						
Lane Grp Cap (vph)		2363		958	1839	
v/s Ratio Prot		c0.16		c0.05	c0.18	
v/s Ratio Perm						
v/c Ratio		0.25		0.19	0.33	
Uniform Delay, d1		4.8		18.9	8.8	
Progression Factor		1.00		1.00	0.00	
Incremental Delay, d2		0.1		0.1	0.1	
Delay (s)		4.8		19.0	0.1	
Level of Service		A		B	A	
Approach Delay (s)	4.8			19.0	0.1	
Approach LOS	A			B	A	

Intersection Summary			
HCM 2000 Control Delay	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	17.0
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	WBL2	WBL	WBR	NBL	NBR	SEL	SET	SER	NWL	NWT	NWR	Ø3
Lane Configurations												
Traffic Volume (vph)	58	19	0	0	0	135	704	47	17	566	119	
Future Volume (vph)	58	19	0	0	0	135	704	47	17	566	119	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	
Frt							0.991				0.850	
Flt Protected		0.950				0.950				0.999		
Satd. Flow (prot)	0	1770	0	0	0	1770	3507	0	0	3536	1583	
Flt Permitted		0.950				0.950				0.926		
Satd. Flow (perm)	0	1770	0	0	0	1770	3507	0	0	3277	1583	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)							16				129	
Link Speed (mph)		30		30			30			30		
Link Distance (ft)		124		240			92			178		
Travel Time (s)		2.8		5.5			2.1			4.0		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	63	21	0	0	0	147	765	51	18	615	129	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	84	0	0	0	147	816	0	0	633	129	
Turn Type	Prot	Prot				Prot	NA		Perm	NA	custom	
Protected Phases	4	4				1	1 2			2	3 4	3
Permitted Phases									2		2	
Detector Phase	4	4				1	1 2		2	2	3 4	
Switch Phase												
Minimum Initial (s)	1.0	1.0				1.0			1.0	1.0		1.0
Minimum Split (s)	19.0	19.0				6.0			19.0	19.0		5.0
Total Split (s)	19.0	19.0				14.0			34.0	34.0		6.0
Total Split (%)	26.0%	26.0%				19.2%			46.6%	46.6%		8%
Maximum Green (s)	15.0	15.0				9.0			30.0	30.0		2.0
Yellow Time (s)	3.0	3.0				3.0			3.0	3.0		3.0
All-Red Time (s)	1.0	1.0				2.0			1.0	1.0		1.0
Lost Time Adjust (s)		0.0				0.0				0.0		
Total Lost Time (s)		4.0				5.0				4.0		
Lead/Lag	Lag	Lag				Lead			Lag	Lag		Lead
Lead-Lag Optimize?	Yes	Yes				Yes			Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0				3.0			3.0	3.0		3.0
Recall Mode	None	None				None			Max	Max		None
Walk Time (s)	4.0	4.0							7.0	7.0		
Flash Dont Walk (s)	11.0	11.0							8.0	8.0		
Pedestrian Calls (#/hr)	0	0							0	0		
Act Effct Green (s)		9.2				9.0	43.1			30.0	49.3	
Actuated g/C Ratio		0.14				0.13	0.64			0.45	0.73	
v/c Ratio		0.35				0.62	0.36			0.43	0.11	
Control Delay		30.0				41.7	6.5			14.4	0.7	
Queue Delay		0.0				0.0	0.0			0.0	0.0	
Total Delay		30.0				41.7	6.5			14.4	0.7	
LOS		C				D	A			B	A	
Approach Delay		30.0					11.8			12.1		
Approach LOS		C					B			B		

Lane Group	WBL2	WBL	WBR	NBL	NBR	SEL	SET	SER	NWL	NWT	NWR	Ø3
Queue Length 50th (ft)		32				57	66			87	0	
Queue Length 95th (ft)		69				#140	120			146	10	
Internal Link Dist (ft)		44		160			12			98		
Turn Bay Length (ft)												
Base Capacity (vph)		394				236	2249			1462	1318	
Starvation Cap Reductn		0				0	0			0	0	
Spillback Cap Reductn		0				0	0			0	0	
Storage Cap Reductn		0				0	0			0	0	
Reduced v/c Ratio		0.21				0.62	0.36			0.43	0.10	

Intersection Summary	
Area Type:	Other
Cycle Length: 73	
Actuated Cycle Length: 67.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Church Street & West Main Street

Movement	WBL2	WBL	WBR	NBL	NBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations											
Traffic Volume (vph)	58	19	0	0	0	135	704	47	17	566	119
Future Volume (vph)	58	19	0	0	0	135	704	47	17	566	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0				5.0	5.0			4.0	4.0
Lane Util. Factor		1.00				1.00	0.95			0.95	1.00
Frt		1.00				1.00	0.99			1.00	0.85
Flt Protected		0.95				0.95	1.00			1.00	1.00
Satd. Flow (prot)		1770				1770	3506			3534	1583
Flt Permitted		0.95				0.95	1.00			0.93	1.00
Satd. Flow (perm)		1770				1770	3506			3277	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	21	0	0	0	147	765	51	18	615	129
RTOR Reduction (vph)	0	0	0	0	0	0	6	0	0	0	42
Lane Group Flow (vph)	0	84	0	0	0	147	810	0	0	633	87
Turn Type	Prot	Prot				Prot	NA		Perm	NA	custom
Protected Phases	4	4				1	1 2			2	3 4
Permitted Phases									2		2
Actuated Green, G (s)		9.2				9.0	44.0			30.0	45.2
Effective Green, g (s)		9.2				9.0	44.0			30.0	45.2
Actuated g/C Ratio		0.14				0.13	0.65			0.45	0.67
Clearance Time (s)		4.0				5.0				4.0	
Vehicle Extension (s)		3.0				3.0				3.0	
Lane Grp Cap (vph)		242				237	2295			1462	1158
v/s Ratio Prot		c0.05				c0.08	0.23				c0.02
v/s Ratio Perm										c0.19	0.04
v/c Ratio		0.35				0.62	0.35			0.43	0.07
Uniform Delay, d1		26.3				27.5	5.2			12.8	3.8
Progression Factor		1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2		0.9				4.9	0.1			0.9	0.0
Delay (s)		27.1				32.3	5.3			13.7	3.8
Level of Service		C				C	A			B	A
Approach Delay (s)		27.1		0.0			9.4			12.0	
Approach LOS		C		A			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	17.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

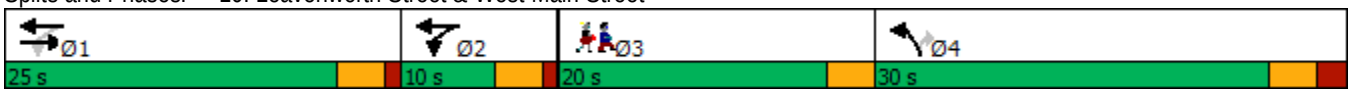
c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3
Lane Configurations							
Traffic Volume (vph)	776	39	70	597	122	107	
Future Volume (vph)	776	39	70	597	122	107	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00	
Frt	0.993					0.850	
Flt Protected			0.950		0.950		
Satd. Flow (prot)	3514	0	1770	3539	1770	1583	
Flt Permitted			0.233		0.950		
Satd. Flow (perm)	3514	0	434	3539	1770	1583	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	6					116	
Link Speed (mph)	30			30	30		
Link Distance (ft)	289			389	436		
Travel Time (s)	6.6			8.8	9.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	843	42	76	649	133	116	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	885	0	76	649	133	116	
Turn Type	NA		D.P+P	NA	Prot	Perm	
Protected Phases	1		2	1 2	4		3
Permitted Phases			1			4	
Detector Phase	1		2	1 2	4	4	
Switch Phase							
Minimum Initial (s)	1.0		1.0		1.0	1.0	1.0
Minimum Split (s)	15.0		6.0		8.0	8.0	20.0
Total Split (s)	25.0		10.0		30.0	30.0	20.0
Total Split (%)	29.4%		11.8%		35.3%	35.3%	24%
Maximum Green (s)	21.0		6.0		25.0	25.0	17.0
Yellow Time (s)	3.0		3.0		3.0	3.0	3.0
All-Red Time (s)	1.0		1.0		2.0	2.0	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	4.0		4.0		5.0	5.0	
Lead/Lag	Lead		Lag		Lag	Lag	Lead
Lead-Lag Optimize?	Yes		Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0		3.0		3.0	3.0	3.0
Recall Mode	Max		Max		None	None	None
Walk Time (s)							8.0
Flash Dont Walk (s)							9.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	21.0		27.0	31.1	8.9	8.9	
Actuated g/C Ratio	0.43		0.55	0.63	0.18	0.18	
v/c Ratio	0.59		0.19	0.29	0.41	0.30	
Control Delay	12.9		6.6	4.7	21.7	6.7	
Queue Delay	0.0		0.0	0.0	0.0	0.0	
Total Delay	12.9		6.6	4.7	21.7	6.7	
LOS	B		A	A	C	A	
Approach Delay	12.9			4.9	14.7		
Approach LOS	B			A	B		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø3
Queue Length 50th (ft)	94		7	34	34	0	
Queue Length 95th (ft)	156		20	65	73	31	
Internal Link Dist (ft)	209			309	356		
Turn Bay Length (ft)							
Base Capacity (vph)	1512		403	2243	904	866	
Starvation Cap Reductn	0		0	0	0	0	
Spillback Cap Reductn	0		0	0	0	0	
Storage Cap Reductn	0		0	0	0	0	
Reduced v/c Ratio	0.59		0.19	0.29	0.15	0.13	

Intersection Summary	
Area Type:	Other
Cycle Length: 85	
Actuated Cycle Length: 49	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 44.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Leavenworth Street & West Main Street



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	776	39	70	597	122	107
Future Volume (vph)	776	39	70	597	122	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	5.0	5.0
Lane Util. Factor	0.95		1.00	0.95	1.00	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3514		1770	3539	1770	1583
Flt Permitted	1.00		0.23	1.00	0.95	1.00
Satd. Flow (perm)	3514		435	3539	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	843	42	76	649	133	116
RTOR Reduction (vph)	3	0	0	0	0	95
Lane Group Flow (vph)	882	0	76	649	133	21
Turn Type	NA		D.P+P	NA	Prot	Perm
Protected Phases	1		2	1 2	4	
Permitted Phases			1			4
Actuated Green, G (s)	21.0		27.0	31.0	8.9	8.9
Effective Green, g (s)	21.0		27.0	31.0	8.9	8.9
Actuated g/C Ratio	0.43		0.55	0.63	0.18	0.18
Clearance Time (s)	4.0		4.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	1509		403	2243	322	288
v/s Ratio Prot	c0.25		0.02	c0.18	c0.08	
v/s Ratio Perm			0.08			0.01
v/c Ratio	0.58		0.19	0.29	0.41	0.07
Uniform Delay, d1	10.6		8.9	4.0	17.7	16.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7		1.0	0.3	0.9	0.1
Delay (s)	12.3		10.0	4.3	18.6	16.7
Level of Service	B		A	A	B	B
Approach Delay (s)	12.3			4.9	17.7	
Approach LOS	B			A	B	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	48.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

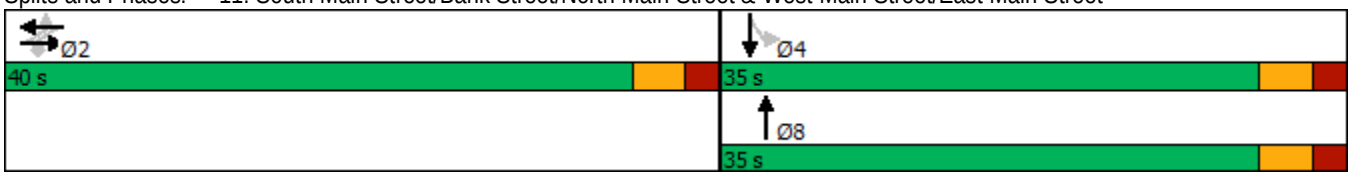
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	824	62	48	642	15	0	423	3	25	412	1
Future Volume (vph)	6	824	62	48	642	15	0	423	3	25	412	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		130	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.997			0.999				
Flt Protected					0.997						0.997	
Satd. Flow (prot)	0	3539	1583	0	3518	0	0	3536	0	0	3529	0
Flt Permitted		0.950			0.848						0.906	
Satd. Flow (perm)	0	3362	1583	0	2992	0	0	3536	0	0	3207	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67		4			1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		389			245			286			217	
Travel Time (s)		8.8			5.6			6.5			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	896	67	52	698	16	0	460	3	27	448	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	903	67	0	766	0	0	463	0	0	476	0
Turn Type	Perm	NA	Perm	Perm	NA			NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2		2	2						4		
Detector Phase	2	2	2	2	2			8		4	4	
Switch Phase												
Minimum Initial (s)	1.0	1.0	1.0	1.0	1.0			1.0		1.0	1.0	
Minimum Split (s)	37.0	37.0	37.0	37.0	37.0			35.0		35.0	35.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0			35.0		35.0	35.0	
Total Split (%)	53.3%	53.3%	53.3%	53.3%	53.3%			46.7%		46.7%	46.7%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0			30.0		30.0	30.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0			2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0		3.0	3.0	
Recall Mode	Max	Max	Max	Max	Max			None		None	None	
Walk Time (s)	12.0	12.0	12.0	12.0	12.0			12.0		12.0	12.0	
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0			18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)		35.1	35.1		35.1			14.5			14.5	
Actuated g/C Ratio		0.59	0.59		0.59			0.24			0.24	
v/c Ratio		0.46	0.07		0.43			0.54			0.61	
Control Delay		8.4	2.3		8.3			21.9			23.5	
Queue Delay		0.2	0.0		0.0			0.0			0.1	
Total Delay		8.6	2.3		8.3			21.9			23.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A	A		A			C			C	
Approach Delay		8.1			8.3			21.9			23.6	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		84	0		70			75			80	
Queue Length 95th (ft)		152	15		129			114			120	
Internal Link Dist (ft)		309			165			206			137	
Turn Bay Length (ft)			130									
Base Capacity (vph)		1980	960		1764			1786			1619	
Starvation Cap Reductn		359	0		0			0			220	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.56	0.07		0.43			0.26			0.34	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 59.6
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 13.3 Intersection LOS: B
Intersection Capacity Utilization 83.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 11: South Main Street/Bank Street/North Main Street & West Main Street/East Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	824	62	48	642	15	0	423	3	25	412	1
Future Volume (vph)	6	824	62	48	642	15	0	423	3	25	412	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0		5.0			5.0			5.0	
Lane Util. Factor		0.95	1.00		0.95			0.95			0.95	
Frt		1.00	0.85		1.00			1.00			1.00	
Flt Protected		1.00	1.00		1.00			1.00			1.00	
Satd. Flow (prot)		3538	1583		3516			3536			3528	
Flt Permitted		0.95	1.00		0.85			1.00			0.91	
Satd. Flow (perm)		3362	1583		2991			3536			3205	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	896	67	52	698	16	0	460	3	27	448	1
RTOR Reduction (vph)	0	0	28	0	2	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	903	39	0	764	0	0	462	0	0	476	0
Turn Type	Perm	NA	Perm	Perm	NA			NA		Perm	NA	
Protected Phases		2			2			8			4	
Permitted Phases	2		2	2						4		
Actuated Green, G (s)		35.1	35.1		35.1			14.5			14.5	
Effective Green, g (s)		35.1	35.1		35.1			14.5			14.5	
Actuated g/C Ratio		0.59	0.59		0.59			0.24			0.24	
Clearance Time (s)		5.0	5.0		5.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		1979	932		1761			860			779	
v/s Ratio Prot								0.13				
v/s Ratio Perm		c0.27	0.02		0.26						c0.15	
v/c Ratio		0.46	0.04		0.43			0.54			0.61	
Uniform Delay, d1		6.9	5.2		6.8			19.6			20.0	
Progression Factor		1.00	1.00		1.00			1.00			1.00	
Incremental Delay, d2		0.8	0.1		0.8			0.6			1.4	
Delay (s)		7.6	5.2		7.5			20.3			21.5	
Level of Service		A	A		A			C			C	
Approach Delay (s)		7.5			7.5			20.3			21.5	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	128	92	184	296	335	124	
Future Volume (vph)	128	92	184	296	335	124	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	
Frt		0.850			0.959		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	1863	3394	0	
Flt Permitted	0.950		0.950				
Satd. Flow (perm)	1770	1583	1770	1863	3394	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		100			53		
Link Speed (mph)	30			30	30		
Link Distance (ft)	200			217	246		
Travel Time (s)	4.5			4.9	5.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	139	100	200	322	364	135	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	139	100	200	322	499	0	
Turn Type	Prot	Perm	Prot	NA	NA		
Protected Phases	4		2	1 2	1		3
Permitted Phases		4					
Detector Phase	4	4	2	1 2	1		
Switch Phase							
Minimum Initial (s)	1.0	1.0	1.0		1.0		1.0
Minimum Split (s)	10.0	10.0	20.0		10.0		18.0
Total Split (s)	25.0	25.0	25.0		30.0		18.0
Total Split (%)	25.5%	25.5%	25.5%		30.6%		18%
Maximum Green (s)	21.0	21.0	21.0		26.0		15.0
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0
All-Red Time (s)	1.0	1.0	1.0		1.0		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.0	4.0	4.0		4.0		
Lead/Lag	Lag	Lag	Lag		Lead		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0
Recall Mode	None	None	Max		None		None
Walk Time (s)							6.0
Flash Dont Walk (s)							9.0
Pedestrian Calls (#/hr)							0
Act Effct Green (s)	10.3	10.3	21.3	41.3	16.0		
Actuated g/C Ratio	0.17	0.17	0.36	0.69	0.27		
v/c Ratio	0.46	0.28	0.32	0.25	0.53		
Control Delay	28.5	8.2	18.0	4.3	18.7		
Queue Delay	0.0	0.0	1.4	2.0	0.0		
Total Delay	28.5	8.2	19.3	6.3	18.7		
LOS	C	A	B	A	B		
Approach Delay	20.0			11.3	18.7		
Approach LOS	B			B	B		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3
Queue Length 50th (ft)	45	0	50	33	70		
Queue Length 95th (ft)	102	35	124	75	118		
Internal Link Dist (ft)	120			137	166		
Turn Bay Length (ft)							
Base Capacity (vph)	631	628	631	1281	1528		
Starvation Cap Reductn	0	0	265	792	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.22	0.16	0.55	0.66	0.33		

Intersection Summary	
Area Type: Other	
Cycle Length: 98	
Actuated Cycle Length: 59.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 40.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: North Main Street & West Main Street

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	128	92	184	296	335	124
Future Volume (vph)	128	92	184	296	335	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1770	1863	3396	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1770	1863	3396	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	139	100	200	322	364	135
RTOR Reduction (vph)	0	83	0	0	39	0
Lane Group Flow (vph)	139	17	200	322	460	0
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		2	1 2	1	
Permitted Phases		4				
Actuated Green, G (s)	10.3	10.3	21.3	41.3	16.0	
Effective Green, g (s)	10.3	10.3	21.3	41.3	16.0	
Actuated g/C Ratio	0.17	0.17	0.36	0.69	0.27	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)	305	273	632	1290	911	
v/s Ratio Prot	c0.08		c0.11	0.17	c0.14	
v/s Ratio Perm		0.01				
v/c Ratio	0.46	0.06	0.32	0.25	0.51	
Uniform Delay, d1	22.1	20.6	13.9	3.4	18.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.1	0.1	1.3	0.1	0.4	
Delay (s)	23.2	20.7	15.2	3.5	18.9	
Level of Service	C	C	B	A	B	
Approach Delay (s)	22.2			8.0	18.9	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	50	21	71	52	32	66	164	106	35	134	0
Future Volume (vph)	5	50	21	71	52	32	66	164	106	35	134	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.962			0.972			0.957				
Flt Protected		0.997			0.978			0.990			0.990	
Satd. Flow (prot)	0	1787	0	0	1771	0	0	1765	0	0	1844	0
Flt Permitted		0.997			0.978			0.990			0.990	
Satd. Flow (perm)	0	1787	0	0	1771	0	0	1765	0	0	1844	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		218			342			241			213	
Travel Time (s)		5.0			7.8			5.5			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	54	23	77	57	35	72	178	115	38	146	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	169	0	0	365	0	0	184	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	50	21	71	52	32	66	164	106	35	134	0
Future Volume (Veh/h)	5	50	21	71	52	32	66	164	106	35	134	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	54	23	77	57	35	72	178	115	38	146	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	665	659	146	652	602	236	146			293		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	665	659	146	652	602	236	146			293		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	85	97	75	85	96	95			97		
cM capacity (veh/h)	298	353	901	309	381	804	1436			1269		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	82	169	365	184
Volume Left	5	77	72	38
Volume Right	23	35	115	0
cSH	420	382	1436	1269
Volume to Capacity	0.20	0.44	0.05	0.03
Queue Length 95th (ft)	18	55	4	2
Control Delay (s)	15.6	21.7	1.9	1.8
Lane LOS	C	C	A	A
Approach Delay (s)	15.6	21.7	1.9	1.8
Approach LOS	C	C		

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		

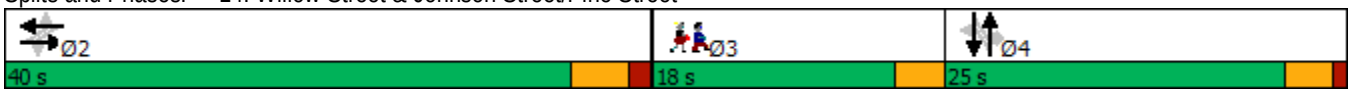
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	123	91	115	73	12	42	275	145	12	287	12
Future Volume (vph)	34	123	91	115	73	12	42	275	145	12	287	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.992				0.850		0.995	
Flt Protected		0.993			0.972			0.993			0.998	
Satd. Flow (prot)	0	1757	0	0	1796	0	0	1850	1583	0	1850	0
Flt Permitted		0.929			0.721			0.926			0.984	
Satd. Flow (perm)	0	1644	0	0	1332	0	0	1725	1583	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43			5				158		2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		273			331			761			180	
Travel Time (s)		6.2			7.5			17.3			4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	134	99	125	79	13	46	299	158	13	312	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	270	0	0	217	0	0	345	158	0	338	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		
Detector Phase	2	2		2	2		4	4	4	4	4	
Switch Phase												
Minimum Initial (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		7.0	7.0	7.0	7.0	7.0	
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0	25.0	25.0	25.0	
Total Split (%)	48.2%	48.2%		48.2%	48.2%		30.1%	30.1%	30.1%	30.1%	30.1%	
Maximum Green (s)	35.0	35.0		35.0	35.0		21.0	21.0	21.0	21.0	21.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0			4.0	4.0		4.0	
Lead/Lag							Lag	Lag	Lag	Lag	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		12.7			12.7			17.4	17.4		17.4	
Actuated g/C Ratio		0.32			0.32			0.44	0.44		0.44	
v/c Ratio		0.48			0.50			0.45	0.20		0.42	
Control Delay		12.7			15.7			10.8	2.7		10.2	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		12.7			15.7			10.8	2.7		10.2	
LOS		B			B			B	A		B	
Approach Delay		12.7			15.7			8.2			10.2	
Approach LOS		B			B			A			B	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	18.0
Total Split (s)	18.0
Total Split (%)	22%
Maximum Green (s)	15.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	8.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		41			39			48	0		46	
Queue Length 95th (ft)		91			88			124	25		117	
Internal Link Dist (ft)		193			251			681			100	
Turn Bay Length (ft)												
Base Capacity (vph)		1431			1155			956	948		1012	
Starvation Cap Reductn		0			0			0	0		0	
Spillback Cap Reductn		0			0			0	0		0	
Storage Cap Reductn		0			0			0	0		0	
Reduced v/c Ratio		0.19			0.19			0.36	0.17		0.33	

Intersection Summary	
Area Type:	Other
Cycle Length: 83	
Actuated Cycle Length: 39.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Willow Street & Johnson Street/Pine Street



Lane Group	Ø3
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	123	91	115	73	12	42	275	145	12	287	12
Future Volume (vph)	34	123	91	115	73	12	42	275	145	12	287	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			4.0	4.0		4.0	
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	
Frt		0.95			0.99			1.00	0.85		0.99	
Flt Protected		0.99			0.97			0.99	1.00		1.00	
Satd. Flow (prot)		1758			1796			1850	1583		1850	
Flt Permitted		0.93			0.72			0.93	1.00		0.98	
Satd. Flow (perm)		1646			1332			1725	1583		1823	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	134	99	125	79	13	46	299	158	13	312	13
RTOR Reduction (vph)	0	29	0	0	3	0	0	0	88	0	1	0
Lane Group Flow (vph)	0	241	0	0	214	0	0	345	70	0	337	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		
Actuated Green, G (s)		12.7			12.7			17.4	17.4		17.4	
Effective Green, g (s)		12.7			12.7			17.4	17.4		17.4	
Actuated g/C Ratio		0.32			0.32			0.45	0.45		0.45	
Clearance Time (s)		5.0			5.0			4.0	4.0		4.0	
Vehicle Extension (s)		3.0			3.0			3.0	3.0		3.0	
Lane Grp Cap (vph)		534			432			767	704		811	
v/s Ratio Prot												
v/s Ratio Perm		0.15			c0.16			c0.20	0.04		0.18	
v/c Ratio		0.45			0.49			0.45	0.10		0.42	
Uniform Delay, d1		10.4			10.6			7.5	6.3		7.4	
Progression Factor		1.00			1.00			1.00	1.00		1.00	
Incremental Delay, d2		0.6			0.9			0.4	0.1		0.3	
Delay (s)		11.1			11.5			7.9	6.4		7.7	
Level of Service		B			B			A	A		A	
Approach Delay (s)		11.1			11.5			7.5			7.7	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	39.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	WBR2	SBL	SBR	SEL	SER
Lane Configurations									
Traffic Volume (vph)	73	181	77	248	71	0	0	0	0
Future Volume (vph)	73	181	77	248	71	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.891						
Flt Protected		0.986							
Satd. Flow (prot)	0	1837	1660	0	0	0	0	0	0
Flt Permitted		0.986							
Satd. Flow (perm)	0	1837	1660	0	0	0	0	0	0
Link Speed (mph)		30	30			30		30	
Link Distance (ft)		124	497			185		184	
Travel Time (s)		2.8	11.3			4.2		4.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	79	197	84	270	77	0	0	0	0
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	276	431	0	0	0	0	0	0
Sign Control		Free	Free			Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	
Intersection Capacity Utilization 43.9%	ICU Level of Service A
Analysis Period (min) 15	