



EAST MAIN STREET TRANSPORTATION PLANNING STUDY

MERIDEN, CONNECTICUT

prepared for

SCRCOG

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Acknowledgements

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Introduction

The South Central Regional Council of Governments (SCRCOG) has set forth this transportation planning study to focus on evaluating access management design strategies for a quarter-mile stretch of East Main Street in Meriden, Connecticut. The study area extends from the I-91 southbound ramps in the east to Paddock Avenue and Gravel Street in the west. This section of East Main Street is unique in its quantity of commercial land uses that attract tens of thousands of vehicles on an average day while also providing a connection to several residential and institutional land uses. The high volume of vehicles within this section combined with the pedestrians that use this corridor presents safety concerns and undue congestion that are a main focus of this study.

This study aimed to improve the safety along the study area for all users of East Main Street by means of evaluating travel time, managing left turns, analyzing access schemes, and assessing the impact of the proposed improvements on adjacent properties. To ensure that the proposed improvements to East Main Street are reflective of the needs of the local community, a significant priority for the study was a committed stakeholder engagement effort. Workshops and interviews ensured that all stakeholders provide input to the incorporated into potential solutions. The feedback gathered from the community outreach process, as well as the direction of City staff, helped to identify preferred improvements.

Chapter 1 - Existing Conditions

The East Main Street corridor is a main throughway that connects downtown Meriden with Interstate 91, Route 15, and Route 66 on the City's east side. This principal arterial roadway, as classified by the Connecticut Department of Transportation (CTDOT), begins in the west at the intersection of West Main Street and Colony Street in the downtown area and continues east for just over three miles to the Route 66 on-ramp at the City limit with Middlefield. The area of interest for this planning study is the section of East Main Street between its intersection with Paddock Avenue and Gravel Street in the west and its intersection with the Interstate-91 southbound on- and off-ramps in the east.



East Main Street and Surrounding Roadway Network

LAND USE & ZONING

Before the institution of the current zoning, which came into effect in 1966, the land use along East Main Street had been mainly commercial single family or multifamily development alongside it. The prior zoning regulations allowed for a mix of commercial and residential land uses as well as creating a Community atmosphere where people living around the corridor could congregate at the local parks and other commercial buildings all within walking distance of the multifamily housing and single family housing in the area.

The post-1966 development saw a large amount of commercial development move in to where residential developments had been previously. The development was centered on the Interstate-91 off-ramp where the commercial businesses could capitalize on the passing highway users. Currently the majority of zoning around the corridor of East Main Street in the vicinity of the intersection of Paddock Avenue and East Main Street is defined as a C-3 zone, highway commercial.

The City of Meriden zoning regulations states:

“The purpose of these districts shall be to provide for a wide range of commercial uses in areas with good access, particularly along major arterials, and to accommodate uses that benefit from large numbers of motorists, that need larger parcels of land developed less intensively than would be appropriate in central or neighborhood businesses, and that may involve characteristics, such as trucking and noise, that are objectionable to residential areas and certain nonresidential areas. New residential development is excluded from these districts except by special exception. The C-3 District is intended to accommodate these same activities at a lower intensity in a more open environment.”

The remaining zoning in the study area is a mix of R-1 and R-3, both residential. These exist to the north and south of East Main Street just beyond the highway commercial zones. East Main Street to the east of the I-91 southbound off ramps consists of mainly highway commercial, C-3, with general commercial (C-2) to the south and residential (R-1) to the north of East Main Street.

ROADWAY INVENTORY

The East Main Street corridor of interest spans 0.21 miles from just west of its intersection with Paddock Avenue and Gravel Street to the west, to the intersection with the Interstate 91 southbound ramps to the east. The corridor is comprised of two signalized intersections and three unsignalized intersections, as well as numerous other driveway curb cuts.



East Main Street Study Area

The signalized intersection of Paddock Avenue, Gravel Street and East Main Street provides a southbound approach on Gravel Street, a northbound approach on Paddock Avenue, and eastbound and westbound approaches on East Main Street.

The southbound approach on Gravel Street provides a dedicated left turn lane with approximately 200 feet of vehicle storage capacity and a combined through/ right turn lane. The northbound approach on Paddock Avenue provides a combined through/ right turn lane and a dedicated left turn lane with approximately 75 feet of vehicle storage capacity. The westbound approach provides a dedicated left turn lane with approximately 175 feet of vehicle storage capacity, a dedicated through lane, and a combined through/ right turn lane. The eastbound approach provides a dedicated left turn lane with approximately 100 feet of vehicle storage capacity, a dedicated through lane, and a combined through/ right turn lane. The posted speed limit is 30 miles per hour on Gravel Street, Paddock Avenue, and East Main Street.



Paddock Avenue Northbound

The unsignalized intersection of East Main Street, CVS/Wendy's main driveway and Margerie Street provides a southbound approach on Margerie Street, a northbound approach on the CVS/Wendy's driveway, and westbound and eastbound approaches on East Main Street.

The northbound approach on the CVS/Wendy's driveway and the southbound approach on Margerie Street provide one shared travel lane onto East Main Street. The eastbound approach on East Main Street provides two lanes of travel while the westbound approach provides a shared through/right turn lane, a dedicated through lane and dedicated left turn lane as it approaches the intersection with Paddock Avenue and Gravel Street. The posted speed limit on East Main Street is 30 miles per hour. The posted speed limit on Margerie Street is 20 miles per hour.

The unsignalized intersection of East Main Street, MedExpress/Dunkin Donuts main access driveway, and Parkway Place provides a southbound approach on Parkway Place, northbound approach on the MedExpress/Dunkin Donuts driveway, and westbound and eastbound approaches on East Main Street. The northbound approach on the MedExpress/Dunkin Donuts driveway provides a combined through/ left turn lane and a dedicated right turn lane with approximately 35 feet of vehicle storage capacity. The southbound approach on Parkway Place provides one lane of travel with no turning restrictions. East Main Street provides two travel lanes on the eastbound and westbound approaches, respectively. The posted speed limit on East Main Street is 30 miles per hour. The posted speed limit on Parkway Place is 20 mile per hour.

The unsignalized intersection of the Comfort Inn Hotel Drive, East Main Street and Shell Station Drive provides a southbound approach on the Hotel Drive, northbound approach on Shell Station Drive, and eastbound and westbound approaches on East Main Street. The northbound and southbound approaches each provide one shared travel lane onto East Main Street. The eastbound approach on East Main Street provides a combined through/ right turn lane and a dedicated through lane as it approaches the I-91 southbound ramps. The westbound approach on East Main Street provides two shared travel lanes in the vicinity of this intersection. The posted speed limit on East Main Street is 30 miles per hour.

The signalized intersection of East Main Street, Interstate-91/Route 15 South Ramps provides a southbound approach on the I-91/Route 15 Off-Ramp and eastbound and westbound approaches on East Main Street.

The southbound approach on the I-91/Route 15 off-ramp provides a combined through/ right turn lane and a dedicated left turn lane onto East Main Street. The westbound approach on East Main Street provides two dedicated through lanes and one dedicated left turn lane onto the I-91/Route 15 South on-ramp with approximately 130 feet of vehicle storage capacity. The eastbound approach provides a dedicated through lane and a shared through/right turn lane onto the I-91/Route 15 South on-ramp. The right turn onto the on-ramp is channelized and occurs approximately 50 feet before the intersection, therefore the eastbound approach provides two dedicated through lanes as it passes through the signal. The posted speed limit on East Main Street is 30 miles per hour. The posted speed limit on the I-91/Route 15 South off-ramp is 45 miles per hour.

CRASH DATA

Data for the East Main Street corridor was obtained from the University of Connecticut Crash Repository database. The records were gathered for the most recent three years of available data, 2015 through 2017, and reviewed for any abnormal type or frequency. Table 1 summarizes the number of crashes experienced at each distinct location on the corridor.

Table 1: Crash Data Summary

Roadway Segment/Intersection	2015	2016	2017	Total	Average
East Main Street at Paddock Ave/Gravel St	24	18	15	57	19
East Main Street at Margerie Street	4	5	4	13	4
East Main Street at Parkway Place	2	4	6	12	4
East Main Street at Hotel Driveway	4	7	2	13	4
East Main Street at I-91 Southbound Ramps	5	8	3	16	5
Total	39	42	30	111	36

The largest number of crashes occurred at the intersection of East Main Street and Paddock Avenue during the study period. The crashes were mostly rear-ended and angle collision types. In total over the three year span, 49 percent (28) of the total crashes were rear-end, 37 percent (21) were angle collisions, 9 percent (five) were sideswipe same direction, two percent (one) were sideswipe opposite direction, two percent (one) was a left turn/opposite thru crash, and two percent (one) was a pedestrian crash. These crashes were mainly concentrated in the southwest and northwest corners of the intersection. Additionally, the intersection experienced a number of rear-end and sideswipes in the vicinity of the McDonalds and Walgreens/Burger King plaza driveways, which is likely due to vehicles stopping or changing lanes to access the driveways.

The intersection of East Main Street and Margerie Street experienced 13 crashes over the three year period. 31 percent (four) were rear-end, 54 percent (seven) were angle, eight percent (one) were sideswipe same direction and eight percent (one) were sideswipe opposite direction. The high number of angle crashes is due to the number of vehicles turning left or right out of Margerie Street. The remaining crashes took place to the west of the intersection between vehicles heading eastbound.

The intersection of East Main Street and Parkway Place experienced 12 crashes over the three year period. 33 percent (four) were rear-end, 23 percent (three) were angle, eight percent (one) were sideswipe same direction, 17 percent (two) were sideswipe opposite direction, and 17 percent (two) were left turn/thru lane crashes. The angle crashes were caused by drivers attempting to turn left or right out of Parkway Place, as well as drivers trying to turn left onto Parkway Place, and drivers attempting to turn left into the Dunkin Donuts Plaza.

The intersection of East Main Street and Comfort Inn driveway experienced a total of 13 crashes over the three year period. Eight percent (one) were rear-end, 62 percent (eight) were angle, 23 percent (three) were sideswipe same direction, and eight percent (one) were fixed object. The large amount of angled collisions most likely occurred due to drivers attempting to turn right or left out of the Comfort Inn or out of the Shell gas station. The sideswipes most likely were caused by drivers attempting to turn left into the Shell gas station or left into the Comfort Inn while through drivers attempted to go around them. The angled collisions were primarily caused by drivers attempting to turn out of the Shell gas station and back onto East Main Street. A majority of the sideswipe crashes occurred due to drivers attempting to pass a driver turning left into the Comfort Inn driveway. A majority of the crashes involved vehicles traveling eastbound.

The intersection of East Main Street and I-91 Southbound ramps experienced 16 crashes over the three year period. 37 percent (six) were rear-end, 19 percent (three) were angle, 31 percent (five) were sideswipe same direction, 12 percent (two) were sideswipe opposite direction. No abnormal crash patterns were determined for this intersection. The sideswipe same direction crashes were caused by drivers attempting to take a right out of the I-91 Southbound off-ramp and vehicles attempting to continue traveling thru the intersection. A majority of the rear end crashes occurred in the eastbound direction as cars crashed into cars stopped or stopping at the signalized intersection.

ACCESS MANAGEMENT

Access Management represents a process which allows for the safe and efficient access from private properties along a given roadway by minimizing the number and size of conflict points, therefore improving the safety of operations for 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 result in a decrease in efficiency and safety.

The following properties along the corridor are accessed by more than one existing curb cut:

Hin's Getty Mart is a gas station located at 938 East Main Street that contains two curb cuts leading onto East Main Street. In addition to these curb cuts specifically for its business, it contains a shared curb cut with the Comfort Inn & Suites next door, for a total of three curb cuts onto East Main Street.

Comfort Inn & Suites located at 896 East Main Street shares one curb cut with Hin's Getty Mart and a curb cut with Nardelli's to the west for a total of two curb cuts onto East Main Street. There is also a shared curb cut with Nardelli's that leads to Belvedere Drive for a total of three curb cuts for Comfort Inn & Suites as well as two curb cuts for Nardelli's.

Gulf gas station located at 872 East Main Street maintains three curb cuts. Two of these curb cuts are connected to East Main Street and one connects to Parkway Place.

Liberty Bank located at 2 Margerie Street is accessed by two curb cuts that connect into Margerie Street. The curb cut farthest to the north is full access and the curb cut closest to East Main Street is exit only.

Hancock's Pharmacy located at 840 East Main Street maintains nine curb cuts. Two curb cuts connect into East Main Street and are 25 feet apart. The facility maintains a curb cut on Gravel Street only 30 feet from the intersection of East Main Street and Gravel Street. There are an additional five curb cuts to the north on Gravel Street. Three lead to the main pharmacy building with the farthest north curb cut being entrance only to give access to the drive thru in the back. The remaining two curb cuts on Gravel Street are shared with the main pharmacy building and the office building to the north of the main facility. The pharmacy building maintains a ninth curb cut on Margerie Street that allows for additional parking as well as deliveries to the pharmacy.

Wells Fargo located at 820 East Main Street contains two private curb cuts. One leads onto Gravel Street and the other connects to East Main Street.

Advanced Auto Parts located at 800 East Main Street maintains two curb cuts onto East Main Street. The curb cut closest to Wells Fargo is enter only and the farthest west curb cut is exit only.

Shell gas station located at 921 East Main Street maintains two curb cuts. Both curb cuts connect to East Main Street and provide full access.

The Dunkin Donuts Plaza located at 875, 885, and 903 East Main Street maintains two curb cuts onto East Main Street. These two curb cuts are shared between three businesses. The east curb cut is exit only and the west curb cut across from Parkway Place provides full access.

Wendy's and CVS located at 839 East Main Street maintains two curb cuts on East Main Street. The east curb cut is exit only while the west curb cut is full access. The west curb cut is approximately 90 feet to the west of the east curb cut. A third curb cut is located on Paddock Avenue and provides full access. While the access point onto Paddock Avenue is appropriately located directly across from the Walgreens/Burger King access driveway, it presents an internal circulation conflict at the southwest corner of the CVS building where the drive-thru traffic turns into the flow of traffic exiting the site with poor sight distance.

To the east of Paddock Avenue, property is shared by Burger King and Walgreens located at 825 East Main Street. The Burger King and Walgreens contain two shared curb cuts which provide full access, one on East Main Street and one on Paddock Avenue.

As a whole, the number of curb cuts provided onto East Main Street from commercial properties along the corridor is much higher than what would be desirable for safe access on a four lane roadway. All of the commercial properties have two or more access points along the main artery as well as along the supporting side streets, many of which could potentially be combined to create safer access and reduce conflict points for vehicles and pedestrians. It should also be noted that additional access potential may be achieved via City owned right of way south of East Main Street connecting to Paddock Avenue south of the CVS access driveway, connecting to Hart Avenue and back to East Main Street east of the Dunkin Donuts property.

PEDESTRIAN & BICYCLE FACILITIES

Every trip begins and ends on foot, and walking is the least expensive way to get from one place to another. Besides providing direct access to commercial, civic, recreational, academic, 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.

From counts conducted on June 7, 2018 it was determined that the corridor experiences a significant pedestrian presence. Across the full length of the study area, a total of 43 pedestrians were counted during the weekday morning peak hour, a total of 59 pedestrians during the weekday midday peak hour, and a total of 90 pedestrians during the weekday afternoon peak hour, with a majority of these occurring at the intersection of East Main Street at Paddock Avenue/Gravel Street.

At the outset of the corridor study, a field assessment of the location and condition of sidewalks was conducted. Concrete sidewalks are present along both sides of the entire corridor and appear to be in good condition at a width of five feet throughout. They are accompanied by exclusive pedestrian phases and painted crosswalks at both signalized intersections within the study area that include pedestrian actuated push buttons; however, accessible ramps meeting the design standards required by the Americans with Disabilities Act of 1990 (ADA) and the Public Right-of-Way Accessibility Guidelines (PROWAG) are not provided.

This section of East Main Street lacks any bicycle facilities, including but not limited to road shoulders, bicycle lanes, shared lanes, pavement markings, bicycle sensitive traffic signals, and bicycle parking amenities. The nearby Francis T. Maloney High School contributes to the presence of pedestrians and bicyclists in the study area, thus improved pedestrian and bicycle facilities would have the potential to create a safe and enjoyable experience for all roadway users if provided in appropriate locations.



Sidewalks on both sides of the street throughout study area

TRANSIT FACILITIES & SERVICE

Approximately one third of the general populace does not possess a driver's license for age, health, financial, legal, or other reasons. To maintain independence and equity among citizens, it is important to facilitate alternative modes of travel beyond a personal vehicle, especially in geographies with dispersed origins and destinations. It is particularly significant that some form of public transportation is available to connect people and places that cannot be easily reached via walking or cycling.

The corridor is accessible via CT Transit to aid the local community in their travels. This is a form of bus service that is owned and operated by CTDOT to serve Hartford and its metropolitan area. CT Transit Meriden/Wallingford operates over seven local bus routes between five and seven days per week. These buses travel along the shared roadways traveling between Meriden and Wallingford.

Meriden/Wallingford (CT Transit) Route 566 can be accessed at three locations, East Main Street and Parkway Place, East Main Street and Gravel Street, and East Main Street and Paddock Avenue. All of these bus stops are located on the sidewalk and provide no shelter to riders who wait for shuttles. The only stop that is unsigned is the East Main Street and Parkway Place stop. None of these stops provide a striped pull-off area, only a sign indicating to pedestrians where to wait for the bus. Pedestrians are accommodated with five feet of sidewalk space and pedestrian signal heads, but the lighting provided at the intersection of East Main Street and Paddock Avenue is primarily suited for vehicular roadway illumination, and is not scaled to be comfortable to pedestrians/transit users. The CT Transit buses are typically also equipped with bike racks on their exterior to accommodate cyclists.

The corridor is also accessible by the Middletown Area Transit on Saturdays. The M-link can be accessed from any point along the shuttle's route. The stop provided for the M-link is a sidewalk stop that provides no shelter to riders who wait for the shuttles and does not provide a sign indicating the designated location of the bus stop. Pedestrians are accommodated with five feet of sidewalk space but as mentioned above, pedestrian scale lighting is not provided at the stops. The M-link buses are typically equipped with bike racks on their exterior to accommodate cyclists as well as the traveling pedestrian.

TRAFFIC ANALYSIS

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

Capacity Analysis

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.

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 “2000 Highway Capacity Manual” 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.

Table 2 in Appendix A presents a summary of the levels of service at the following signalized intersections with East Main Street:

- Paddock Avenue/Gravel Street
- Interstate-91 Southbound Ramps

Table 3 in Appendix A presents a summary of the levels of service at the following unsignalized intersections with East Main Street:

- Margerie Street
- Parkway Place
- Hotel Driveway

Copies of the analysis worksheets for the weekday morning, weekday midday, and weekday afternoon peak hours are also included in Appendix A. For analysis purposes, the East Main Street approaches are referred to as eastbound and westbound and the side street approaches are typically referred to as northbound and southbound. The volumes used for these analyses were primarily collected on Thursday, June 7, 2018. Those counts have been attached.

The signalized intersection of East Main Street at Paddock Avenue/Gravel Street operates acceptably at LOS C or D during the weekday morning, midday, and afternoon peak hours. Additionally, the signalized intersection of East Main Street at I-91 Southbound ramps operates efficiently at LOS B during the weekday midday peak hour, and operates acceptably at LOS C in the weekday morning and afternoon peak hours.

The unsignalized intersection of East Main Street at 839 East Main Street and Margerie Street operates efficiently at LOS A for the eastbound and westbound approaches during the weekday morning, midday, and afternoon peak hours. The northbound and southbound approach operate efficiently at LOS B during weekday morning peak hour, and acceptably at LOS C/LOS D during the weekday midday and afternoon peak hours.

The unsignalized intersection of East Main Street at 875 East Main Street and Parkway Place operates efficiently at LOS A during weekday morning, weekday midday, and weekday afternoon peak hours for the eastbound and westbound approaches. The northbound and southbound approaches operate acceptably at LOS C/LOS D during the weekday morning, weekday midday, and weekday afternoon peak hours.

The unsignalized intersection of East Main Street at 921 East Main Street and 896 East Main Street operates efficiently at LOS A for the eastbound and westbound approaches during the weekday morning, weekday midday, and weekday afternoon peak hours. The northbound approach operates efficiently at LOS B for the weekday morning, weekday midday, and weekday afternoon peak hours. The southbound approach operates acceptably at LOS C during the weekday morning, weekday midday, and weekday afternoon peak hours.

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. Table 4 in Appendix A provides a summary of the queue lengths for the critical lanes at each intersection.

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

- Eastbound left turn movement at the intersection of East Main Street at Paddock Avenue/Gravel Street during the weekday morning peak hour by less than one vehicle length.
- Westbound left turn lane at the intersection of East Main Street at I-91 Southbound ramps during the weekday morning peak hour by approximately one vehicle length.

SUMMARY

The 0.21 mile study area of East Main Street and its intersecting roadway provides a number of unique challenges. Based on the collected vehicle turning movement counts and existing CTDOT ADT data, it appears as though a relatively high percentage of the users of this roadway are passing through Meriden on I-91 or Route 15 and exit the highway to stop at one or more of the commercial uses along the roadway before returning back to the highway. While it is expected that a majority of trips generated by a gas station or a coffee shop will be pass-by trips, in this situation a high percentage of those pass-by trips are diverted link trips from the highways. In order to complete these diverted link trips, each vehicle must make a left turn either into or out of the destination. This type of trip creates more conflicting left turn movements than what would typically be found in a commercial corridor, independent of being adjacent to a highway interchange.

The presence of these additional left turn movements can be seen in the turning movement volumes, as well as in the crash diagrams, which detail several angle and left turn opposing through crashes at each retail driveway during the study period. While the majority of crashes experienced along the corridor occurred at intersections, the existing land access management scheme provides curb cuts on both sides of the roadway on average at 100 foot intervals. The study area is approximately 1150 feet in length, with 11 curb cuts on the north side and nine on the south side, the majority of which provide unrestricted access.

Excessive delay was not found to be prevalent in the existing condition, and while two 95th percentile queue lengths did over-spill the provided storage area, the excessive queues were only observed during the morning peak hour, and by approximately one vehicle length or less.

The primary findings of the existing conditions review are as follows:

- Land use on the corridor immediately abutting the roadway is entirely commercial, with residential land use provided adjacent to the commercial.
- An excessive number of curb cuts are provided along the corridor, nearly one every one hundred feet, and access management for the roadway must be studied.
- While some pedestrian, bicycle and transit accommodations are provided, much of it could be improved.
- Crashes were observed along the entire corridor, with angle crashes and left turn opposing through crashes found at the retail driveways.
- Excessive delays and queuing were determined not to be prevalent in the existing condition. Additional analysis will be conducted for the 2038 condition.

Chapter 2 - Access Management

As a result of the size of these parcels, multiple access points are often provided in order to accommodate motorists arriving from different directions. Oftentimes, due to the varying schedules of development and construction, access driveways can be established in close proximity to one another and can become redundant once adjacent parcels are built out. Access management is a process which can be used to consolidate driveways in order to optimize the property for safe and efficient access and egress, therefore minimizing the number of conflict points.



East Main Street, Gravel Street and Paddock Avenue Eastbound

Each parcel along East Main Street within the study area, between Gravel Street and Paddock Avenue in the west, and the I-91/Route-15 ramps in the east, has been reviewed based on its quantity and quality of access driveways. This chapter details those findings parcel by parcel, west to east on the north side of the street and then the south, and recommends improvements for each parcel in order to optimize its access pattern. The recommendations are depicted on a plan sheet at the end of this chapter.

840 EAST MAIN STREET, 19 & 29 GRAVEL STREET

The properties at 840 East Main Street, and 19 and 29 Gravel Street have been jointly developed to accommodate Hancock's Pharmacy. This property has approximately 475 feet of street frontage that accommodate nine curb cuts; two onto East Main Street and six onto Gravel Street. The two curb cuts on East Main Street are each approximately 40 feet wide and separated by 30 feet of landscaped buffer. The western driveway is located approximately 20 feet from the stop bar at the intersection of East Main Street and Paddock Avenue/Gravel Street.

In order to optimize both internal circulation and conflicts with traffic on East Main Street, it is proposed that the western curb cut be eliminated and the eastern driveway to be narrowed to a width of 28 feet. This will limit access within close proximity of the signalized intersection as well as increase safety internally within the site with vehicles maneuvering into and out of the parking spaces perpendicular to the south side of the pharmacy.

Additionally, in order to increase safety at the signalized intersection, the two curb cuts along Gravel Street between its intersection with East Main Street and the utility pole #229 are proposed to be closed in order to consolidate and relocate the pharmacy access as far away from the signalized intersection as possible, as well as to provide as many as six additional parking spaces and better circulation around the front of the pharmacy. These recommendations also allow for the relocation of the two existing accessible parking spaces, as well as the addition of one accessible parking space, to the west side in a more traditional accessible space location, compliant with the Americans with Disabilities Act (ADA) parking regulations.

2 MARGERIE STREET

The property at 2 Margerie Street is occupied by Liberty Bank. While the property has frontage on East Main Street, all three of its access driveways are along Margerie Street. The southernmost of the three driveways is located within a curb cut that abuts the stop bar onto East Main Street. This driveway location must remain, as the drive-thru function of the bank cannot operate without it.

17 MARGERIE STREET

The property at 17 Margerie Street is occupied by Allergy Associates of Hartford, PC, Alternative Paths Counseling, and Allstate insurance company. While the property has frontage on East Main Street, both curb cuts accessing its off-street parking are along Margerie Street. Similarly to the property at 2 Margerie Street, the curb cut is located adjacent to the intersection of Margerie Street with East Main Street, however the site layout requires the curb cut to remain in order to access parking.

872 EAST MAIN STREET

The property at 872 East Main Street consists of a Gulf Station in the northwest corner of the intersection of East Main Street and Parkway Place. This property has three access driveways, two on East Main Street and one on Parkway Place. As the fuel tanks and fill caps are located on the east side of the property, it is not feasible to close the eastern driveway on East Main Street or the driveway on Parkway Place, because it would inhibit fuel deliveries to the site. Additionally, if the western driveway were to be eliminated, patrons facing westbound while fueling would then be restricted on the west side of the property due to the limited pass-by width between the southern fuel pumps and the adjacent sidewalk, combined with no connection along the north side of the property.

Therefore, it is proposed that the western driveway along East Main Street be narrowed to 28 feet and restricted for egressing left turns. Both of these improvements would facilitate an increase in safety for motorists and pedestrians along the site frontage.

896 AND 938 EAST MAIN STREET

The properties at 896 and 938 East Main Street consist of a Nardelli's Grinder Shoppe, Comfort Inn & Suites, and the Getty fuel station. These parcels are located between Parkway Place to the west and the I-91/Route-15 southbound off-ramp to the east. This parcel block has four access driveways onto East Main Street as well one driveway that accesses Belvedere Street in the northwest corner of the parcel. The driveway widths along East Main Street, from east to west, are 35 feet, 35 feet, 35 feet and 55 feet, separated by 270 foot, 25 foot, and 23 foot areas of landscaping with adjacent sidewalk, respectively.

In order to improve the access management for these properties, it is recommended to close the western access driveway on each of the two properties and create an access driveway at 896 East Main Street onto Parkway Place south of Nardelli's. Closing the western driveway at 896 East Main Street and opening a new driveway onto Parkway Place is intended to divert egressing vehicles to an existing two-way stop-controlled intersection. This would provide motorists with better visibility of vehicles coming from the signalized intersections to the east and west, as well as vehicles preparing to exit the Dunkin Donuts/Medexpress plaza. In addition, this scheme would create a net of six new parking spaces on the 896 East Main Street parcel. It also allows the drive-thru functionality of the Nardelli's building to be utilized.

A potential fallback recommendation would be to improve the western access driveway by implementing a left turn restriction, allowing vehicles to only enter and exit that driveway via right turn. This could be achieved with a center island that is geometrically designed to facilitate these types of turning movements, or the narrowing of the driveway and implementation of signage according to the Manual of Uniform Traffic Control Devices (MUTCD).

The closure of the western access driveway at 938 East Main Street has the potential to eliminate a redundant access point to these properties and provide approximately 80 feet of clearance between the eastern driveways of each parcel.

This will help eliminate confusion of vehicles that may be egressing the property at the same time while still facilitating enough space for delivery vehicles to access the site. Fuel tanker operations are not anticipated to be impacted by this recommendation.

PARKWAY PLACE AND MARGERIE STREET ACCESS

A recurring concern voiced by residents in attendance at the public information meeting held December 12, 2018 at Maloney High School was regarding left turns out of Parkway Place and Margerie Street along the north side of East Main Street. While residents on Margerie Street are able to navigate to Gravel Street to head east on East Main Street, residents of Parkway Place and Belvedere Drive do not currently have that option, and are forced to turn left onto East Main Street without the aid of a signalized intersection.

One alternative would be to connect Parkway Place to the Maloney High School roadway network, potentially with only one-way northbound access. This option poses potential operational concerns during school peak hours by adding more vehicular volume to a high school parking lot, however, a similar connection is permitted at Margerie Street. This option would require coordination with school personnel.

A second option would be to construct a roadway parallel to the school's access road between Margerie Street and Parkway Place. This land is currently owned by the school and private land owners, and an agreement would be required in order to construct a public access.

839, 875, 885, AND 903 EAST MAIN STREET

The properties at 839 East Main Street consist of a CVS Pharmacy and a Wendy's restaurant. This parcel is accessed by two full access driveways, one on East Main Street and one on Paddock Avenue. The driveways are approximately 180 and 260 feet, respectively from the signalized intersection where the two aforementioned streets convene. A third driveway is restricted to egressing vehicles onto East Main Street, and is located approximately 70 feet east of the full access driveway.

The property at 875 East Main Street consists of a Med Express urgent care facility, while a Dunkin Donuts with a drive-through is located at 885 and 903 East Main Street. These two parcels are jointly developed and share two driveways onto East Main Street, one of which provides full access and the other restricted to allow right turning egressing vehicles only. Approximately 130 feet of separation is provided between these two driveways.

The two developments are laid out in a similar fashion, with the building situated in the center of the parcel and vehicular circulation and parking located along the perimeter. This creates an ideal arrangement to join the two parcels along the rear of the developments, away from the main access driveways on East Main Street, to allow cross flow and alleviating congestion onto the arterial roadway.

These parcels have the potential to be joined on the exterior within the City right-of-way to the southwest of these four parcels. This right-of-way has enough width to accommodate a new, two-lane roadway that could connect 839 East Main Street with 875 East Main Street along the southern property boundaries. This new connection could also outlet onto Paddock Avenue and eliminate the need for the existing access driveway in the southwest corner of the 839 East Main Street parcel. This proposed roadway would also correct the sight distance issue that currently exists for egressing vehicles.

Alternatively, the parcels could be linked at the southeast corner of 839 East Main Street and the southwest corner of 875 East Main Street. The creation of this connection would allow patrons to access combinations of these four businesses without the need to leave the site. This connection would require the relocation of the dumpster pads on both properties as well as a loss of approximately four (4) angled parking space along the western perimeter of 875 East Main Street. In addition, there would need to be further exploration into how this would affect the drive through operations at both the CVS Pharmacy and Wendy's.

Independent of this potential for rear access between these four parcels, it is possible to reconfigure the existing four access driveways on East Main Street to provide a safer and more efficient system for access and egress. The eastern driveway at 839 East Main Street is proposed to be closed while the western driveway is proposed to have an egressing left-turn restriction by means of a center median that physically restricts this movement. This restriction would require left-turning vehicles to exit onto Paddock Avenue and utilize the signalized intersection to continue westbound.



839 East Main Street East Driveway Northbound

This left-turn restriction is also proposed for the driveway at 875 East Main Street, while the driveway at 885 East Main Street is proposed to be closed; however these two improvements would only be feasible if the rear access between 875 and 839 East Main Street was implemented.

PADDOCK AVENUE

Another community concern that arose at the public information meeting was the extensive northbound queuing that occurs on Paddock Avenue at its intersection with East Main Street. The residents stated that vehicles queued up in the through/right turn lane routinely stretch back far enough to block access to the left turn lane, rendering it inaccessible during the exclusive left turn phase of the signal. This was also demonstrated in the capacity and queue analyses that was submitted as part of the Existing Conditions Technical Memorandum, dated November 9, 2018.

One solution to this concern is to lengthen the northbound left turn lane at this intersection. The existing roadway could accommodate an additional 100+ feet of storage with simple restriping and no roadway widening required.

Another potential solution would be to create an additional option to motorists looking to travel westbound and permit them to make a left turn at a different, less congested, intersection. Removing the one-way restriction on Wilson Avenue could allow vehicles traveling northbound on Paddock Avenue to turn left on Wilson Avenue and continue to its terminus at Swain Avenue, from which they could access East Main Street.

921 EAST MAIN STREET

The property at 921 East Main Street consists of a Shell fueling station. This parcel has two full access driveways onto East Main Street that are 28 feet and 34 feet wide with 40 feet separating them. This parcel has adequate access and driveways that are an appropriate width for the land use and surrounding area, therefore no recommendations are made for this parcel.

Adjacent to 921 East Main Street is the curb cut for Hart Avenue right-of-way. This curb cut does not currently provide access to any land uses, and as such it is recommended to be closed and replaced with a continuous sidewalk.

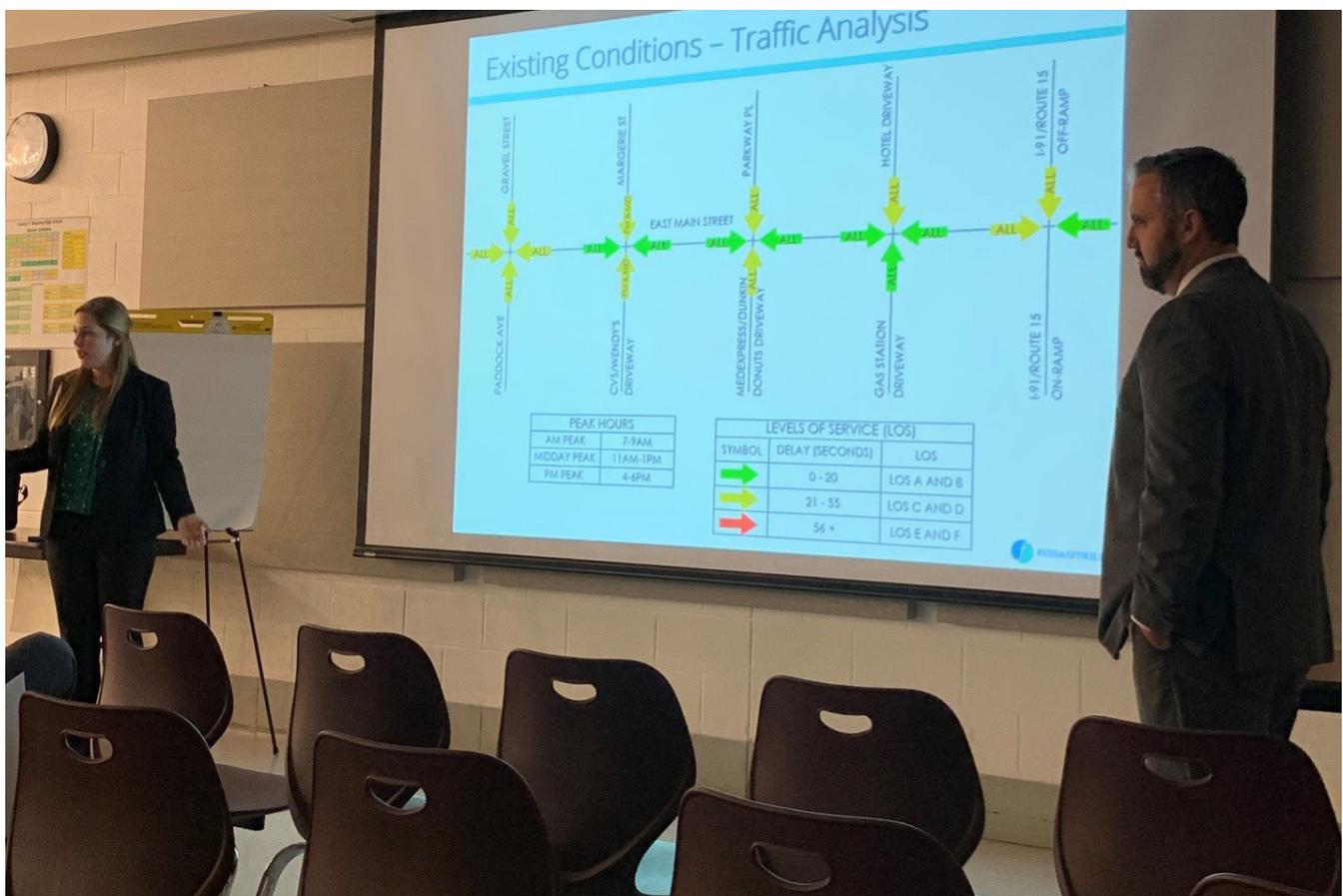


NOTES:
 1. REALLOCATE LANES ON PADDOCK AVENUE NORTHBOUND TO ACCOMMODATE AN 11 FOOT SOUTHBOUND RECEIVING LANE, 10 FOOT LEFT TURN LANE, AND AN 11 FOOT NORTHBOUND THROUGH/RIGHT TURN LANE. EXTEND THE LEFT TURN LANE TO TERMINATE APPROXIMATELY 50 FEET NORTH OF THE PROPOSED INTERSECTION, CREATING APPROXIMATELY 200 FEET OF AVAILABLE STORAGE.

Chapter 3 - Evaluation of Preliminary Alternatives

SUMMARY OF PUBLIC WORKSHOP NO. 1

Public participation in this study has been vital to its success. Outreach to a diverse group of key stakeholders has aided in creating suggestions which will resonate with the users of this roadway as the study progresses. Representative stakeholder groups include, but are not limited to, City of Meriden (the City) officials, residents, business owners, and Connecticut Department of Transportation (CTDOT). The goal of the public involvement effort has been to provide accurate information about the study to the public and facilitate proactive public participation.



Public Workshop No. 1 Presentation

Workshop No. 1 was the first of two major efforts to involve the general public in this study and gather input from each unique perspective. The objective of this gathering was to provide stakeholders with a background on the corridor itself and provide information regarding the scope of work to be performed and a timeframe for the work to be completed. The project team was also tasked with gaining basic knowledge from the community that can only be acquired from daily use of the corridor.

The group was introduced to the Fuss & O’Neill team and their qualifications to work on this project as well as the City of Meriden staff, and South Central Regional Council of Governments (SCRCOG) who initiated the project. With the stage set, the participants were given details regarding the existing function, facilities, and condition of the corridor. The group then broke for comments and questions before moving into a “solutions toolbox” that could be implemented to mitigate some of the key concerns of this quarter mile stretch of arterial roadway. Copies of the workshop publications, flyer, presentation materials, and data collected can be found in Appendix B

SUMMARY OF PUBLIC WORKSHOP NO. 2

Workshop No. 2 was the second of two major efforts to involve the general public in this study. The objective of this gathering was to provide stakeholders with insight on the improvements that are being proposed and the design process behind each improvement. The project team also answered questions and facilitated group discussion between residents. In general, there were no major objections to the modifications being proposed. Copies of the workshop publications, flyer, presentation materials and data collected can be found in Appendix B.

FINAL RECOMMENDATIONS

As described in Chapter 2, “Access Management”, the roadway segment provides a multitude of access points to the various residential and commercial land uses along the corridor. As a result of the size of these parcels, multiple access points are often provided in order to accommodate motorists arriving from different directions. These access points are often referred to as “curb cuts” and having several of them along a short stretch of roadway can lead to safety concerns for multiple modes of transportation.



Public Workshop No. 2 Presentation

The conceptual design described in Chapter 2 was influenced directly from the input received through Public Workshop No. 1. That concept was then reviewed by City staff, as well as by property owners and business operators throughout the corridor during one on one interviews. The comments made by those stakeholders were considered and in most cases the concept was revised to incorporate their comments.

Herein is a description of the revisions that were made during this process. The following parcels required no revision to the original improvement concept:

- 840 East Main Street, 19 & 29
- 2 Margerie Street
- 17 Margerie Street
- 872 East Main Street
- 921 East Main Street

Each of the recommendations are depicted in the plan sheet included at the end of this chapter.

896 and 938 East Main Street

The City and the property owner of 938 East Main Street have reviewed the proposed access scheme for these parcels and prefer that the eastern driveway at 938 East Main Street be closed instead of the western driveway in order to improve functionality of the fuel station. This improvement has been incorporated in the final design recommendation.

Parkway Place and Margerie Street Access

A concern arose at the first public information meeting regarding left turns out of Parkway Place and Margerie Street onto East Main Street. While residents on Margerie Street are able to navigate to Gravel Street via Lois Street and Sylvester Street in order to turn left onto East Main Street, residents of Parkway Place and Belvedere Drive do not currently have that option, and are forced to turn left onto East Main Street without the aid of a signalized intersection.

Based on this concern, the suggestion was raised that a signal be installed at the intersection of Parkway Place and East Main Street. After reviewing the count data at the intersection of East Main Street and Parkway Place/Dunkin Donuts driveway, an average of 18 vehicles approach this intersection from the north on Parkway Place during the peak hours, and 27 vehicles approach from the south at the Dunkin Donuts driveway. Out of those approaching vehicles, seven and 21 make a left turn onto East Main Street, respectively.

Based on this criteria and the vehicle volumes on East Main Street, the signal warrants are not met at this location at this time.

However, through the process of interviewing stakeholders for this project, it was brought to the City's attention that a private property owner may be willing to coordinate with the City on an easement that would allow access between Parkway Place and Margerie Street. The City will further explore this solution outside of these study efforts in order to provide safe and convenient access for all residents.

839, 875, 885, and 903 East Main Street

As discussed in Chapter 2, these parcels have the potential to be joined on the exterior within the City right-of-way, formerly known as Edson Street. Rather than constructing a two-way street, the City would prefer to have a 16-foot, one-way westbound roadway from 875 East Main Street to 839 East Main Street and shift the existing driveway accessing Paddock Avenue to the north.

This access scheme would alleviate the need for left turns directly onto East Main Street from these two developments by giving motorists the opportunity to exit the parcels to the rear (south) and navigate to Paddock Avenue, and then make a left turn at the signalized intersection of East Main Street and Paddock Avenue/Gravel Street. Additionally, striping and a double yellow center line would be added to the south side of the CVS Pharmacy in order to provide well-defined circulation between the two properties.

Independent of the rear access considerations, the City and business operator at 875 East Main Street further reviewed the proposed narrowing and left turn restriction at the driveway at this parcel. After consideration, this study recommends to maintain this driveway geometry and operation as it exists.

Paddock Avenue

Community feedback at Public Workshop No. 1 expressed concern with extensive northbound queueing on Paddock Avenue at its intersection with East Main Street. Since this meeting, the City has revised the signal equipment and timing at this intersection to accommodate a 16-phase signal, replacing the existing 8-phase signal. This will allow for more flexible control over the amount of green time allotted to the Paddock Avenue left turns. This improvement will be monitored by the City moving forward and adjustments will be made as needed.

Should queueing not be alleviated as a result of this improvement, restriping on Paddock Avenue is recommended in order to provide more left turn queueing storage.

Hart Avenue

Between 903 and 921 East Main Street is a remnant section of Hart Avenue. This paved area does not currently provide access to any parcels, and may be confusing to drivers attempting to navigate to the Dunkin Donuts or Shell gas station businesses. As such, this curb cut is proposed to be closed and the sidewalk be continued across the existing driveway.

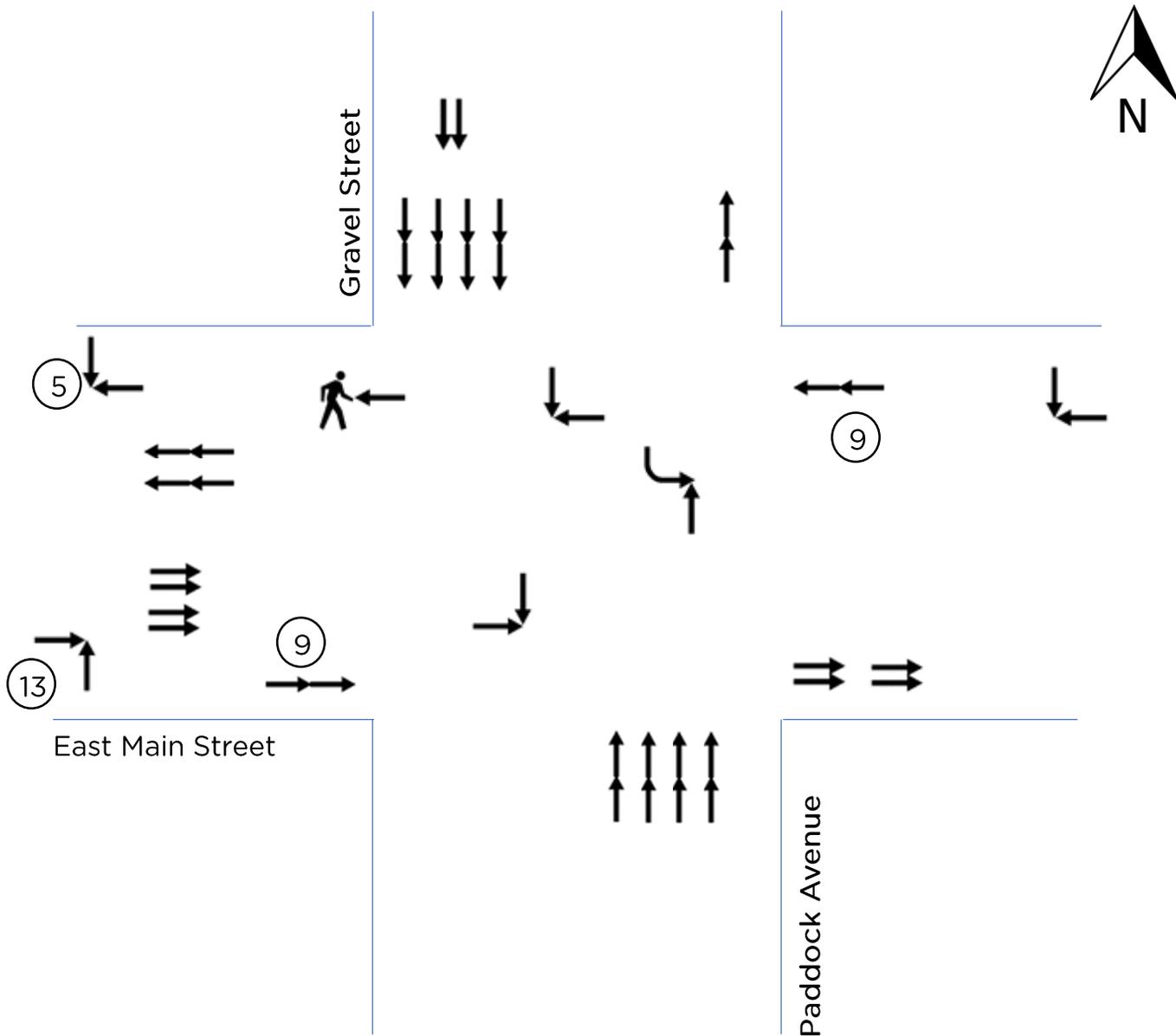


NOTES:
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Appendix A

Traffic Data

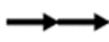


Angle



Left Turn, Opposing Thru

Rear-End



Pedestrian

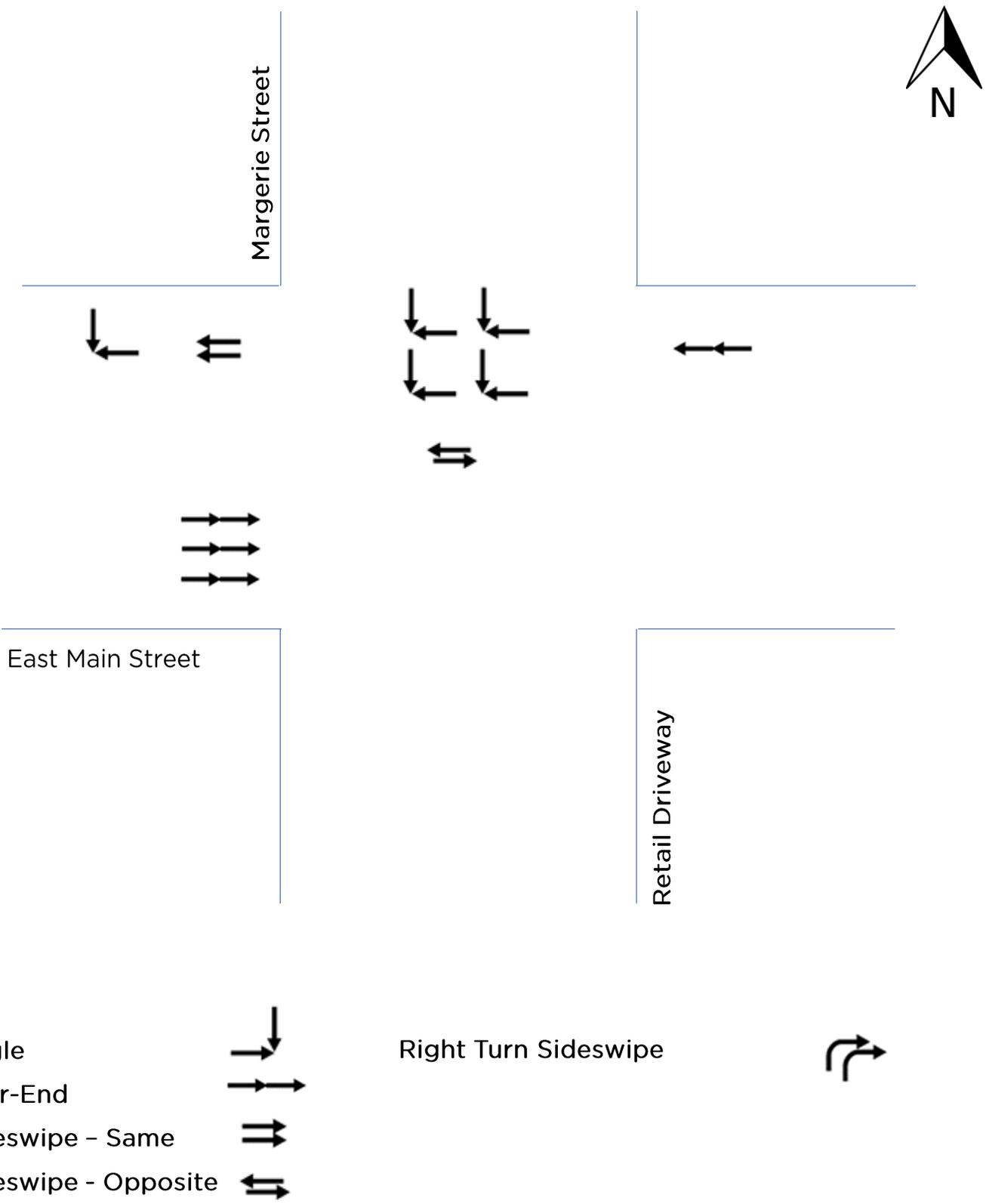


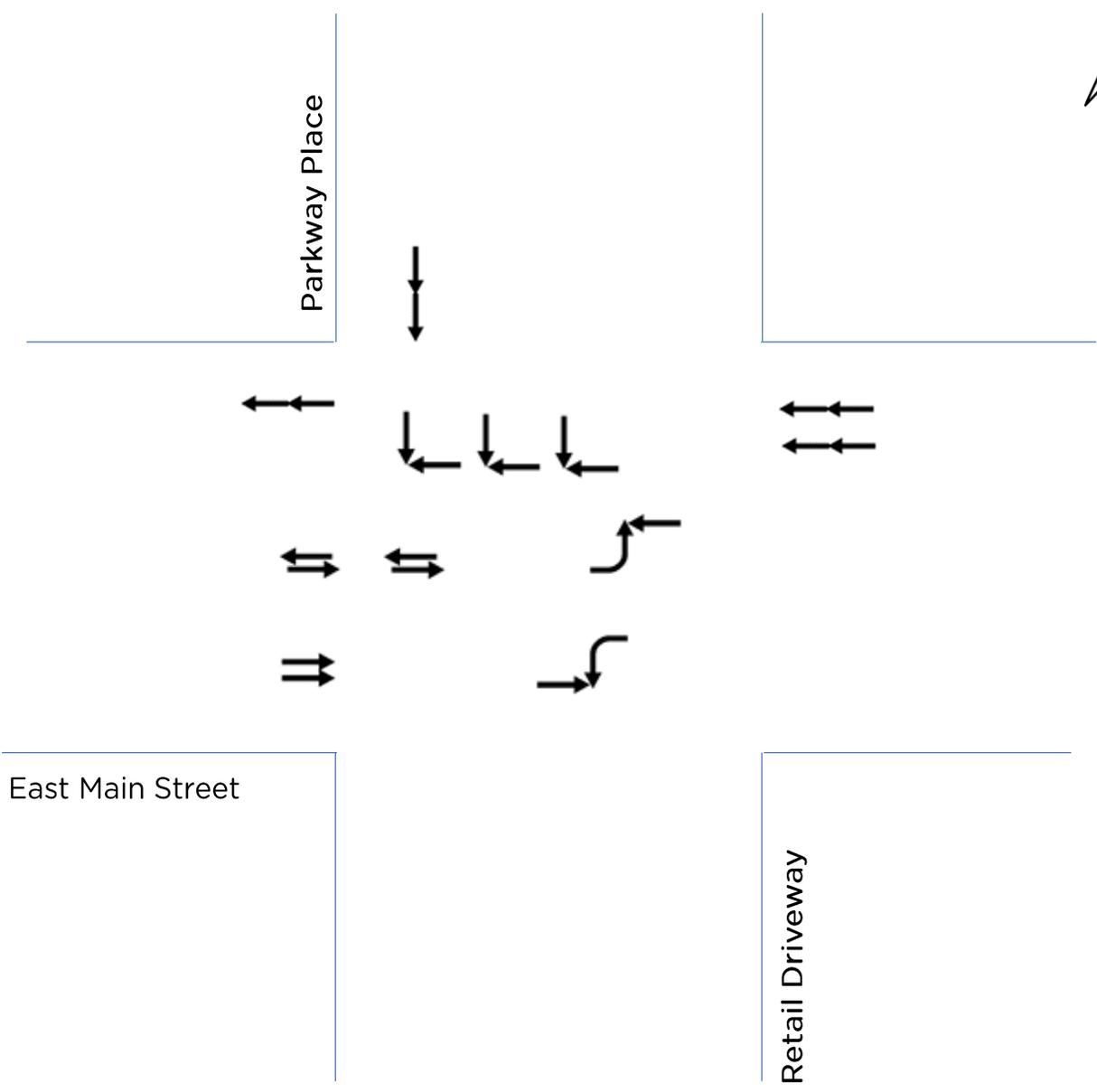
Sideswipe - Same



Sideswipe - Opposite



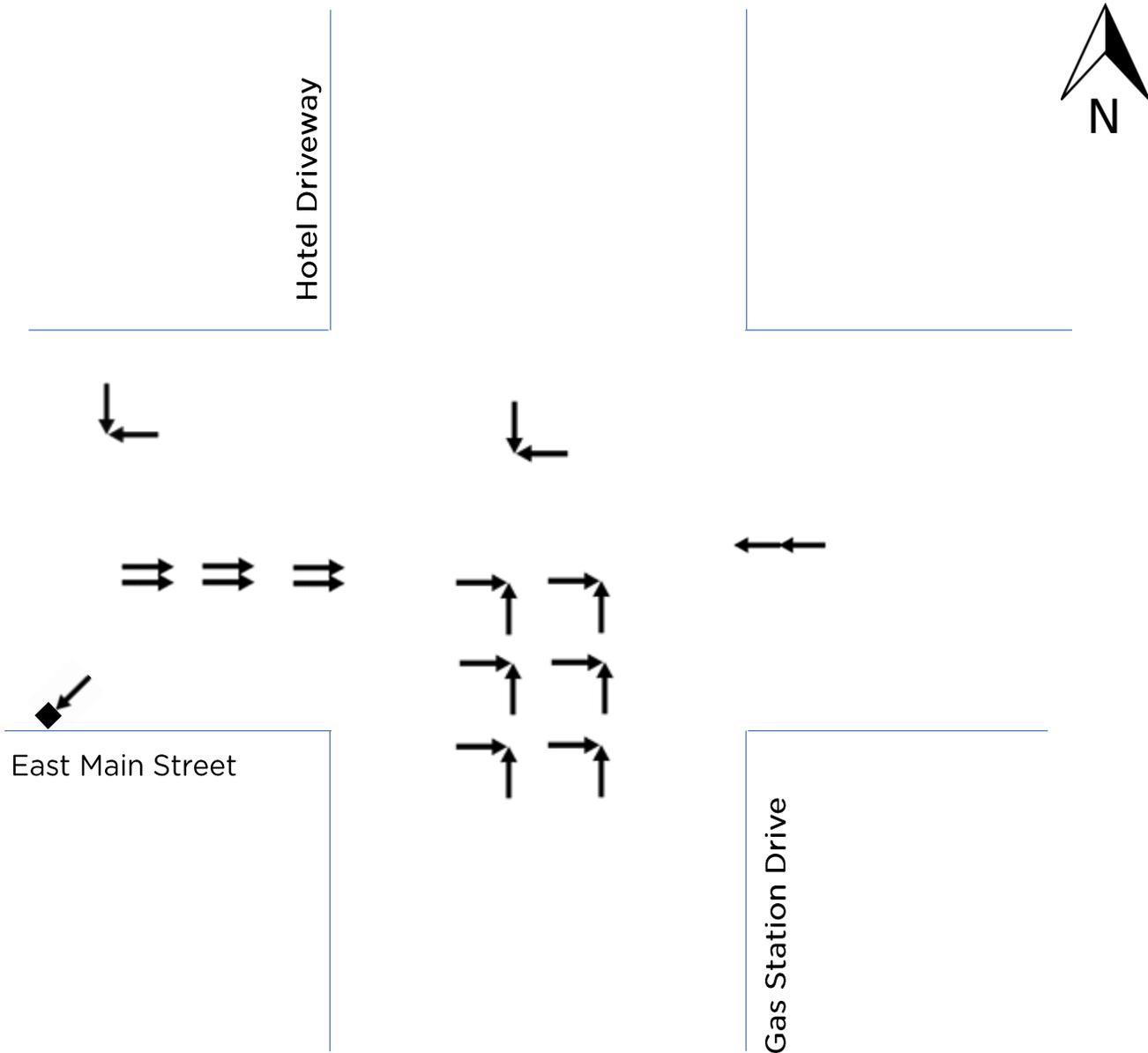




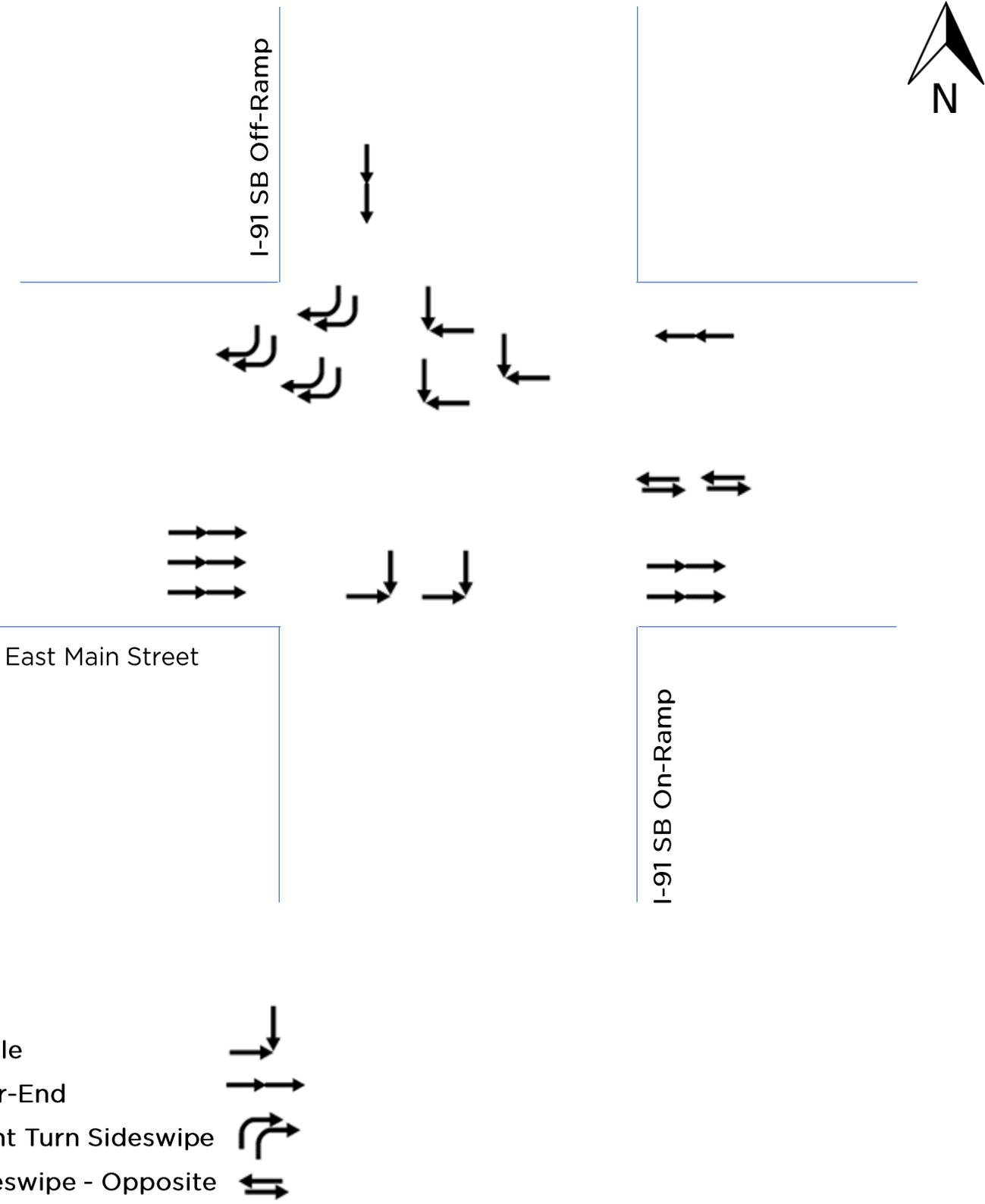
- Angle 
- Rear-End 
- Sideswipe - Same 
- Sideswipe - Opposite 

Left Turn, Opposing Thru





- Angle
- Rear-End
- Sideswipe - Same
- Fixed Object



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Paddock Ave/Gravel St
 Meriden, Connecticut

File Name : 17479
 Site Code : 17479
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	23	27	57	2	109	26	76	14	1	117	37	38	13	1	89	8	85	42	1	136	451
07:15 AM	30	27	60	1	118	26	86	29	2	143	47	46	21	0	114	12	121	39	2	174	549
07:30 AM	15	22	31	3	71	14	97	24	0	135	28	17	20	0	65	14	135	18	6	173	444
07:45 AM	11	16	38	0	65	14	102	30	1	147	46	19	21	0	86	16	109	14	6	145	443
Total	79	92	186	6	363	80	361	97	4	542	158	120	75	1	354	50	450	113	15	628	1887
08:00 AM	8	16	43	0	67	21	77	38	1	137	31	13	31	0	75	13	111	9	0	133	412
08:15 AM	7	13	28	0	48	16	86	23	1	126	41	9	15	0	65	10	113	7	0	130	369
08:30 AM	10	18	32	0	60	29	93	34	0	156	40	12	15	0	67	19	93	8	0	120	403
08:45 AM	10	20	35	2	67	18	94	31	1	144	50	14	29	0	93	11	104	8	1	124	428
Total	35	67	138	2	242	84	350	126	3	563	162	48	90	0	300	53	421	32	1	507	1612
Grand Total	114	159	324	8	605	164	711	223	7	1105	320	168	165	1	654	103	871	145	16	1135	3499
Apprch %	18.8	26.3	53.6	1.3		14.8	64.3	20.2	0.6		48.9	25.7	25.2	0.2		9.1	76.7	12.8	1.4		
Total %	3.3	4.5	9.3	0.2	17.3	4.7	20.3	6.4	0.2	31.6	9.1	4.8	4.7	0	18.7	2.9	24.9	4.1	0.5	32.4	
Lights	111	148	314	0	573	159	672	210	0	1041	304	161	154	0	619	99	847	142	0	1088	3321
% Lights	97.4	93.1	96.9	0	94.7	97	94.5	94.2	0	94.2	95	95.8	93.3	0	94.6	96.1	97.2	97.9	0	95.9	94.9
Buses	1	10	5	0	16	3	12	6	0	21	7	7	6	0	20	3	6	3	0	12	69
% Buses	0.9	6.3	1.5	0	2.6	1.8	1.7	2.7	0	1.9	2.2	4.2	3.6	0	3.1	2.9	0.7	2.1	0	1.1	2
Trucks	2	1	5	0	8	2	27	7	0	36	9	0	5	0	14	1	18	0	0	19	77
% Trucks	1.8	0.6	1.5	0	1.3	1.2	3.8	3.1	0	3.3	2.8	0	3	0	2.1	1	2.1	0	0	1.7	2.2
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	14.3	0.1	0	0	0	0	0	0	0	0	0	0	0
Pedestrians																					
% Pedestrians	0	0	0	100	1.3	0	0	0	85.7	0.5	0	0	0	100	0.2	0	0	0	100	1.4	0.9

Connecticut Counts LLC

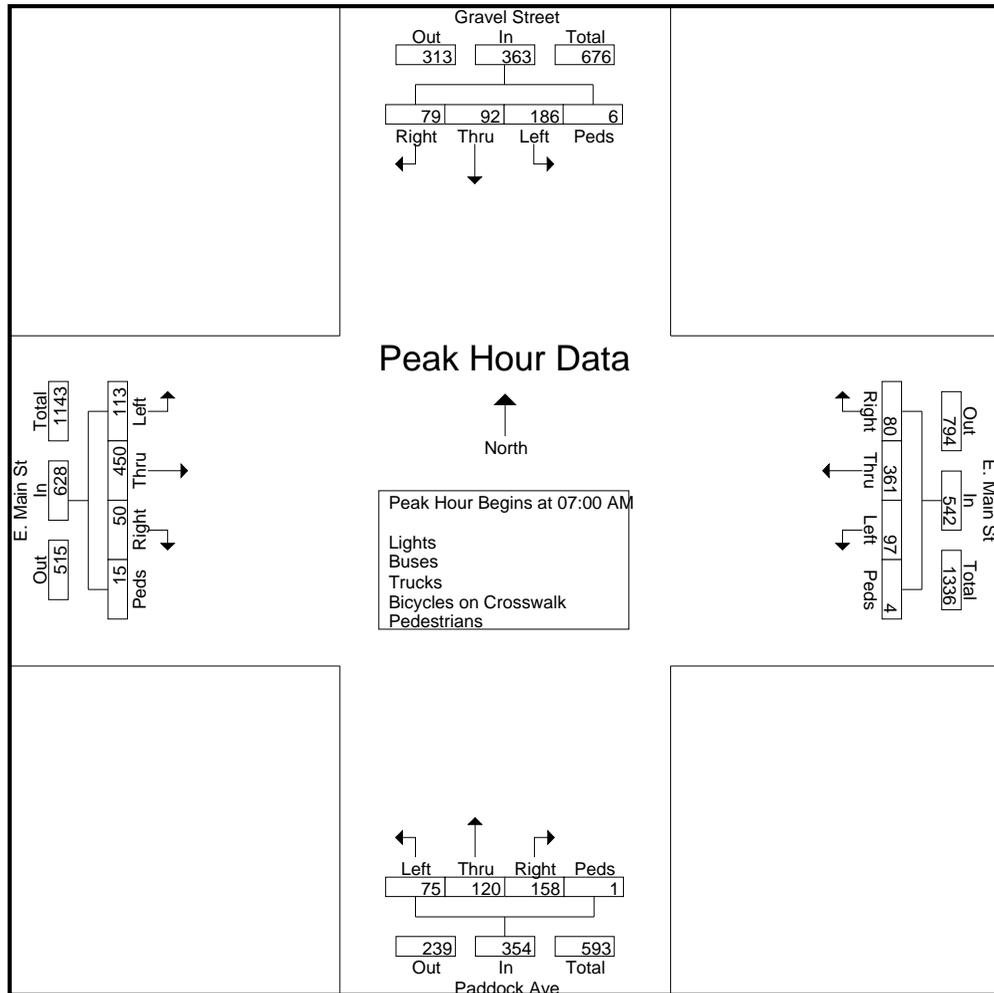
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17479
Site Code : 17479
Start Date : 6/7/2018
Page No : 2

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM

07:00 AM	23	27	57	2	109	26	76	14	1	117	37	38	13	1	89	8	85	42	1	136	451
07:15 AM	30	27	60	1	118	26	86	29	2	143	47	46	21	0	114	12	121	39	2	174	549
07:30 AM	15	22	31	3	71	14	97	24	0	135	28	17	20	0	65	14	135	18	6	173	444
07:45 AM	11	16	38	0	65	14	102	30	1	147	46	19	21	0	86	16	109	14	6	145	443
Total Volume	79	92	186	6	363	80	361	97	4	542	158	120	75	1	354	50	450	113	15	628	1887
% App. Total	21.8	25.3	51.2	1.7		14.8	66.6	17.9	0.7		44.6	33.9	21.2	0.3		8	71.7	18	2.4		
PHF	.658	.852	.775	.500	.769	.769	.885	.808	.500	.922	.840	.652	.893	.250	.776	.781	.833	.673	.625	.902	.859



Connecticut Counts LLC

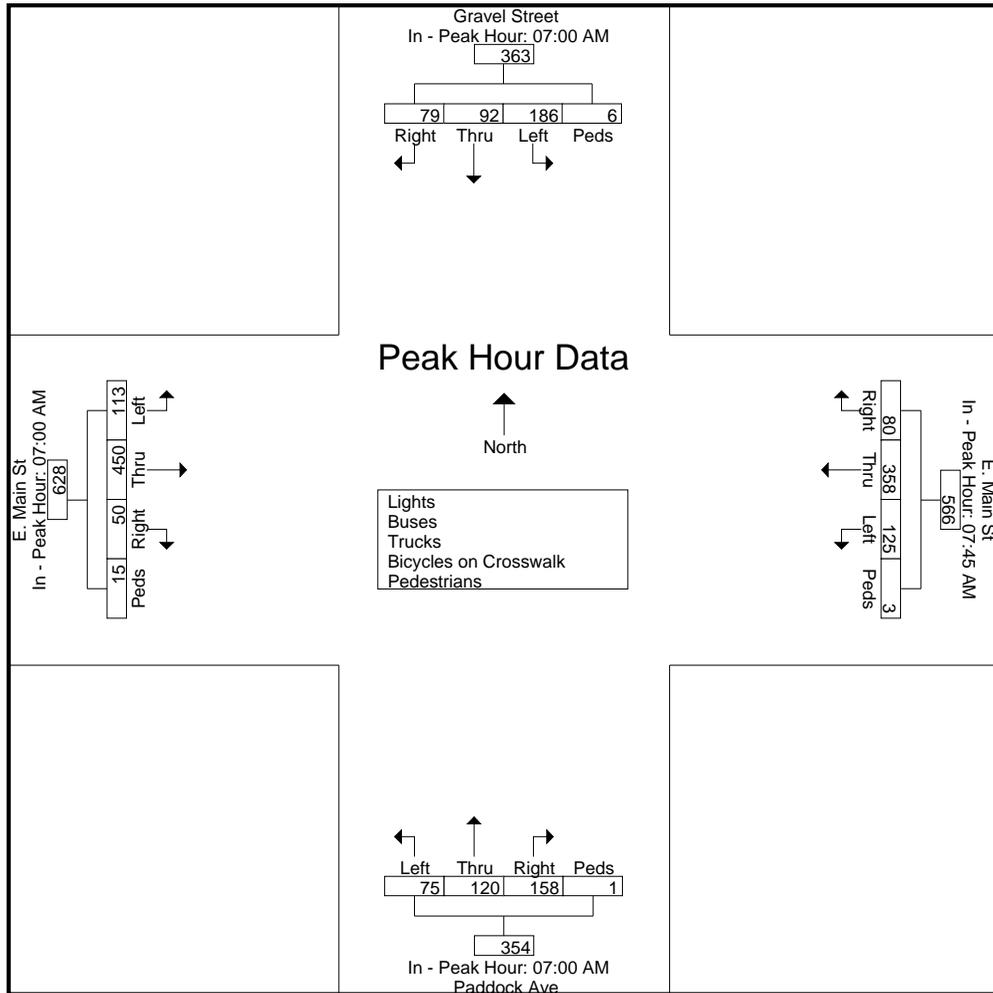
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File Name : 17479
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Page No : 3

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM					07:45 AM					07:00 AM					07:00 AM				
+0 mins.	23	27	57	2	109	14	102	30	1	147	37	38	13	1	89	8	85	42	1	136
+15 mins.	30	27	60	1	118	21	77	38	1	137	47	46	21	0	114	12	121	39	2	174
+30 mins.	15	22	31	3	71	16	86	23	1	126	28	17	20	0	65	14	135	18	6	173
+45 mins.	11	16	38	0	65	29	93	34	0	156	46	19	21	0	86	16	109	14	6	145
Total Volume	79	92	186	6	363	80	358	125	3	566	158	120	75	1	354	50	450	113	15	628
% App. Total	21.8	25.3	51.2	1.7		14.1	63.3	22.1	0.5		44.6	33.9	21.2	0.3		8	71.7	18	2.4	
PHF	.658	.852	.775	.500	.769	.690	.877	.822	.750	.907	.840	.652	.893	.250	.776	.781	.833	.673	.625	.902



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E. Main St at Paddock Ave/Gravel St
 Meriden, Connecticut

File Name : 17480
 Site Code : 17480
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	12	5	20	1	38	8	108	18	2	136	26	7	19	1	53	16	84	5	2	107	334
11:15 AM	10	12	39	2	63	24	125	24	0	173	27	13	18	2	60	19	90	9	1	119	415
11:30 AM	13	15	35	1	64	19	104	16	1	140	22	5	19	2	48	9	61	7	2	79	331
11:45 AM	16	25	49	1	91	28	140	27	2	197	25	28	31	0	84	13	96	17	2	128	500
Total	51	57	143	5	256	79	477	85	5	646	100	53	87	5	245	57	331	38	7	433	1580
12:00 PM	18	14	34	0	66	28	145	38	3	214	35	13	18	1	67	16	102	15	0	133	480
12:15 PM	17	12	42	2	73	19	133	39	1	192	34	5	23	3	65	16	124	14	0	154	484
12:30 PM	8	12	29	0	49	19	130	26	0	175	39	20	23	1	83	22	125	17	0	164	471
12:45 PM	9	8	38	1	56	25	124	31	0	180	26	17	21	1	65	15	116	16	1	148	449
Total	52	46	143	3	244	91	532	134	4	761	134	55	85	6	280	69	467	62	1	599	1884
Grand Total	103	103	286	8	500	170	1009	219	9	1407	234	108	172	11	525	126	798	100	8	1032	3464
Apprch %	20.6	20.6	57.2	1.6		12.1	71.7	15.6	0.6		44.6	20.6	32.8	2.1		12.2	77.3	9.7	0.8		
Total %	3	3	8.3	0.2	14.4	4.9	29.1	6.3	0.3	40.6	6.8	3.1	5	0.3	15.2	3.6	23	2.9	0.2	29.8	
Lights	101	100	282	0	483	167	973	212	0	1352	221	106	168	0	495	122	776	99	0	997	3327
% Lights	98.1	97.1	98.6	0	96.6	98.2	96.4	96.8	0	96.1	94.4	98.1	97.7	0	94.3	96.8	97.2	99	0	96.6	96
Buses	1	1	1	0	3	1	8	3	0	12	0	1	2	0	3	2	0	1	0	3	21
% Buses	1	1	0.3	0	0.6	0.6	0.8	1.4	0	0.9	0	0.9	1.2	0	0.6	1.6	0	1	0	0.3	0.6
Trucks	1	2	3	0	6	2	28	4	0	34	13	1	2	0	16	2	22	0	0	24	80
% Trucks	1	1.9	1	0	1.2	1.2	2.8	1.8	0	2.4	5.6	0.9	1.2	0	3	1.6	2.8	0	0	2.3	2.3
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	18.2	0.4	0	0	0	0	0	0.1
Pedestrians																					
% Pedestrians	0	0	0	100	1.6	0	0	0	100	0.6	0	0	0	81.8	1.7	0	0	0	100	0.8	1

Connecticut Counts LLC

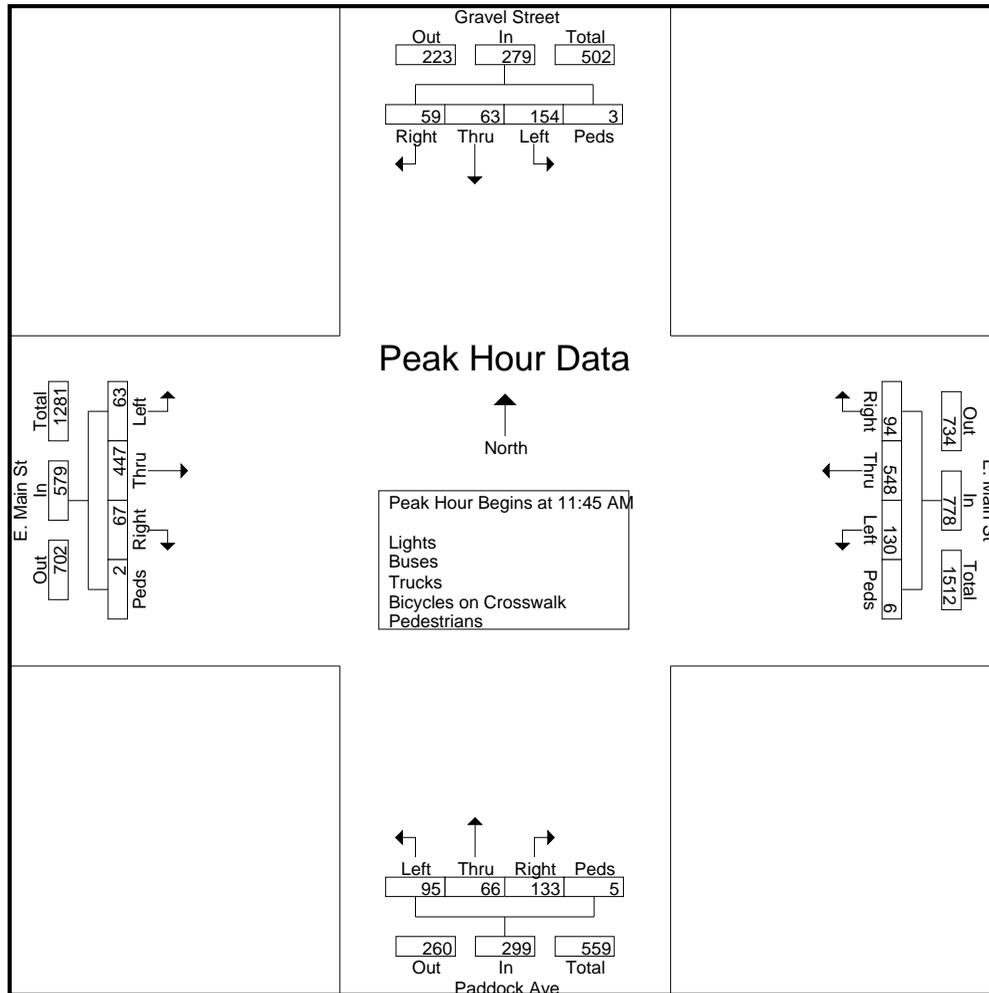
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17480
Site Code : 17480
Start Date : 6/7/2018
Page No : 2

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 11:45 AM

11:45 AM	16	25	49	1	91	28	140	27	2	197	25	28	31	0	84	13	96	17	2	128	500
12:00 PM	18	14	34	0	66	28	145	38	3	214	35	13	18	1	67	16	102	15	0	133	480
12:15 PM	17	12	42	2	73	19	133	39	1	192	34	5	23	3	65	16	124	14	0	154	484
12:30 PM	8	12	29	0	49	19	130	26	0	175	39	20	23	1	83	22	125	17	0	164	471
Total Volume	59	63	154	3	279	94	548	130	6	778	133	66	95	5	299	67	447	63	2	579	1935
% App. Total	21.1	22.6	55.2	1.1		12.1	70.4	16.7	0.8		44.5	22.1	31.8	1.7		11.6	77.2	10.9	0.3		
PHF	.819	.630	.786	.375	.766	.839	.945	.833	.500	.909	.853	.589	.766	.417	.890	.761	.894	.926	.250	.883	.968



Connecticut Counts LLC

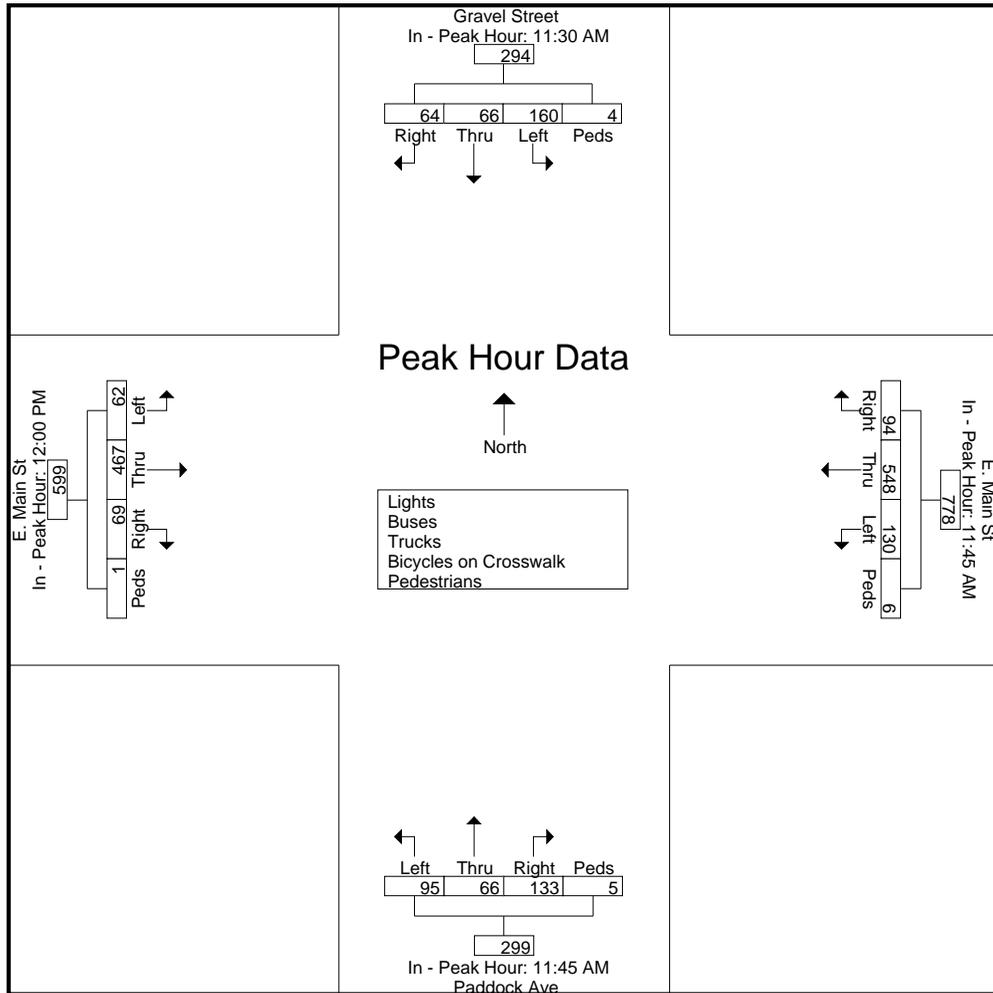
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17480
Site Code : 17480
Start Date : 6/7/2018
Page No : 3

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:30 AM					11:45 AM					11:45 AM					12:00 PM				
+0 mins.	13	15	35	1	64	28	140	27	2	197	25	28	31	0	84	16	102	15	0	133
+15 mins.	16	25	49	1	91	28	145	38	3	214	35	13	18	1	67	16	124	14	0	154
+30 mins.	18	14	34	0	66	19	133	39	1	192	34	5	23	3	65	22	125	17	0	164
+45 mins.	17	12	42	2	73	19	130	26	0	175	39	20	23	1	83	15	116	16	1	148
Total Volume	64	66	160	4	294	94	548	130	6	778	133	66	95	5	299	69	467	62	1	599
% App. Total	21.8	22.4	54.4	1.4		12.1	70.4	16.7	0.8		44.5	22.1	31.8	1.7		11.5	78	10.4	0.2	
PHF	.889	.660	.816	.500	.808	.839	.945	.833	.500	.909	.853	.589	.766	.417	.890	.784	.934	.912	.250	.913



Connecticut Counts LLC
Kensington, Connecticut 06037
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E. Main St at Paddock Ave/Gravel Street
 Meriden, Connecticut

File Name : 17481
 Site Code : 17481
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

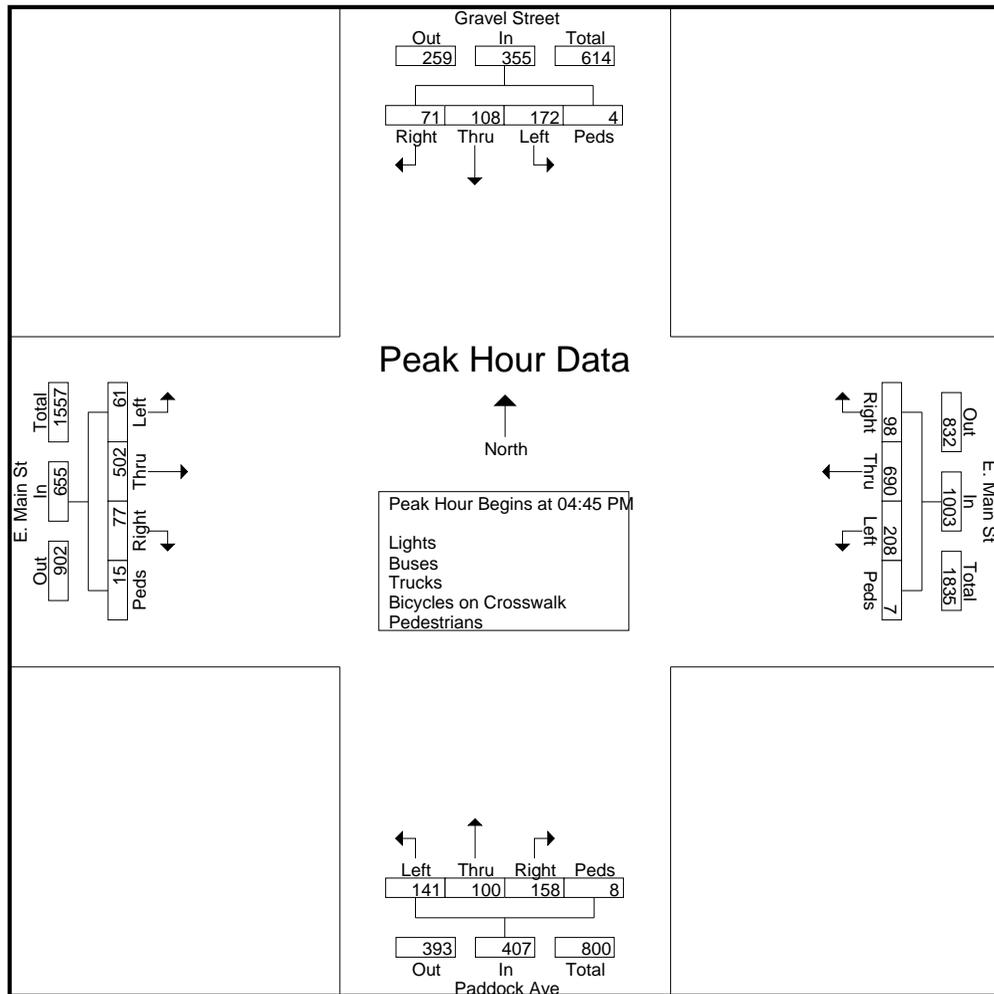
Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	17	17	34	2	70	23	173	44	2	242	36	27	24	1	88	15	129	13	0	157	557
04:15 PM	22	23	42	1	88	26	155	47	0	228	39	42	42	0	123	14	118	20	0	152	591
04:30 PM	15	22	25	2	64	26	172	49	1	248	31	24	28	0	83	17	110	19	3	149	544
04:45 PM	18	28	44	0	90	22	156	53	2	233	39	27	40	0	106	20	113	15	2	150	579
Total	72	90	145	5	312	97	656	193	5	951	145	120	134	1	400	66	470	67	5	608	2271
05:00 PM	23	34	39	0	96	33	186	49	2	270	42	24	32	3	101	24	118	12	5	159	626
05:15 PM	11	21	41	2	75	18	166	58	2	244	51	31	36	2	120	21	139	19	3	182	621
05:30 PM	19	25	48	2	94	25	182	48	1	256	26	18	33	3	80	12	132	15	5	164	594
05:45 PM	14	12	47	1	74	24	143	52	0	219	38	19	25	2	84	21	131	16	1	169	546
Total	67	92	175	5	339	100	677	207	5	989	157	92	126	10	385	78	520	62	14	674	2387
Grand Total	139	182	320	10	651	197	1333	400	10	1940	302	212	260	11	785	144	990	129	19	1282	4658
Apprch %	21.4	28	49.2	1.5		10.2	68.7	20.6	0.5		38.5	27	33.1	1.4		11.2	77.2	10.1	1.5		
Total %	3	3.9	6.9	0.2	14	4.2	28.6	8.6	0.2	41.6	6.5	4.6	5.6	0.2	16.9	3.1	21.3	2.8	0.4	27.5	
Lights	137	182	319	0	638	196	1322				99	99.5	100	0	98.1	97.2	99.1	100	0	97.5	98.1
% Lights	98.6	100	99.7	0	98	99.5	99.2	98.8	0	98.6	99	99.5	100	0	98.1	97.2	99.1	100	0	97.5	98.1
Buses	0	0	0	0	0	0	5	0	0	5	1	1	0	0	2	2	0	0	0	0	2
% Buses	0	0	0	0	0	0	0.4	0	0	0.3	0.3	0.5	0	0	0.3	1.4	0	0	0	0	0.2
Trucks	2	0	1	0	3	1	6	5	0	12	2	0	0	0	2	2	9	0	0	11	28
% Trucks	1.4	0	0.3	0	0.5	0.5	0.5	1.2	0	0.6	0.7	0	0	0	0.3	1.4	0.9	0	0	0.9	0.6
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	10	0.1	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	10	10	0	0	0	9	9	0	0	0	11	11	0	0	0	19	19	49
% Pedestrians	0	0	0	100	1.5	0	0	0	90	0.5	0	0	0	100	1.4	0	0	0	100	1.5	1.1

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17481
Site Code : 17481
Start Date : 6/7/2018
Page No : 2

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	18	28	44	0	90	22	156	53	2	233	39	27	40	0	106	20	113	15	2	150	579
05:00 PM	23	34	39	0	96	33	186	49	2	270	42	24	32	3	101	24	118	12	5	159	626
05:15 PM	11	21	41	2	75	18	166	58	2	244	51	31	36	2	120	21	139	19	3	182	621
05:30 PM	19	25	48	2	94	25	182	48	1	256	26	18	33	3	80	12	132	15	5	164	594
Total Volume	71	108	172	4	355	98	690	208	7	1003	158	100	141	8	407	77	502	61	15	655	2420
% App. Total	20	30.4	48.5	1.1		9.8	68.8	20.7	0.7		38.8	24.6	34.6	2		11.8	76.6	9.3	2.3		
PHF	.772	.794	.896	.500	.924	.742	.927	.897	.875	.929	.775	.806	.881	.667	.848	.802	.903	.803	.750	.900	.966



Connecticut Counts LLC

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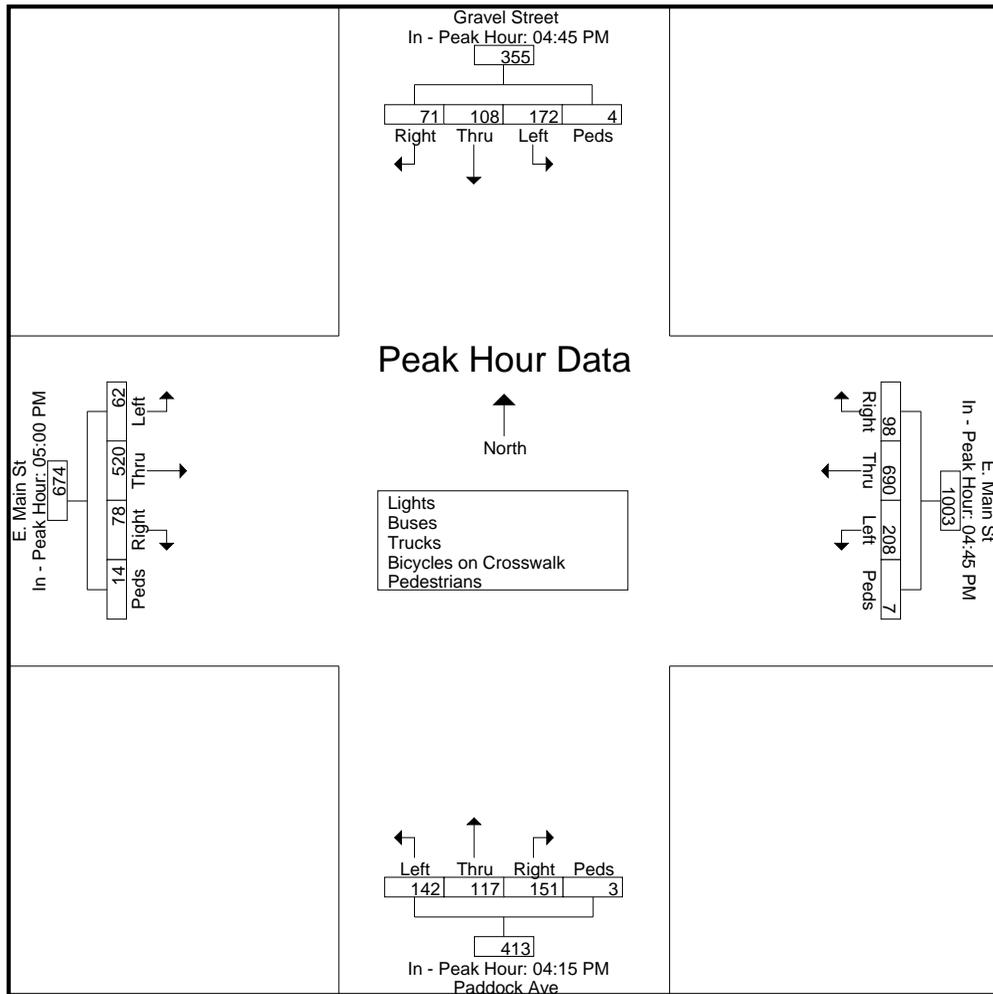
File Name : 17481
Site Code : 17481
Start Date : 6/7/2018
Page No : 3

Start Time	Gravel Street From North					E. Main St From East					Paddock Ave From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM					04:45 PM					04:15 PM					05:00 PM				
+0 mins.	18	28	44	0	90	22	156	53	2	233	39	42	42	0	123	24	118	12	5	159
+15 mins.	23	34	39	0	96	33	186	49	2	270	31	24	28	0	83	21	139	19	3	182
+30 mins.	11	21	41	2	75	18	166	58	2	244	39	27	40	0	106	12	132	15	5	164
+45 mins.	19	25	48	2	94	25	182	48	1	256	42	24	32	3	101	21	131	16	1	169
Total Volume	71	108	172	4	355	98	690	208	7	1003	151	117	142	3	413	78	520	62	14	674
% App. Total	20	30.4	48.5	1.1		9.8	68.8	20.7	0.7		36.6	28.3	34.4	0.7		11.6	77.2	9.2	2.1	
PHF	.772	.794	.896	.500	.924	.742	.927	.897	.875	.929	.899	.696	.845	.250	.839	.813	.935	.816	.700	.926



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main Street at Margerie Street
 Meriden, Connecticut

File Name : 17482
 Site Code : 17482
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

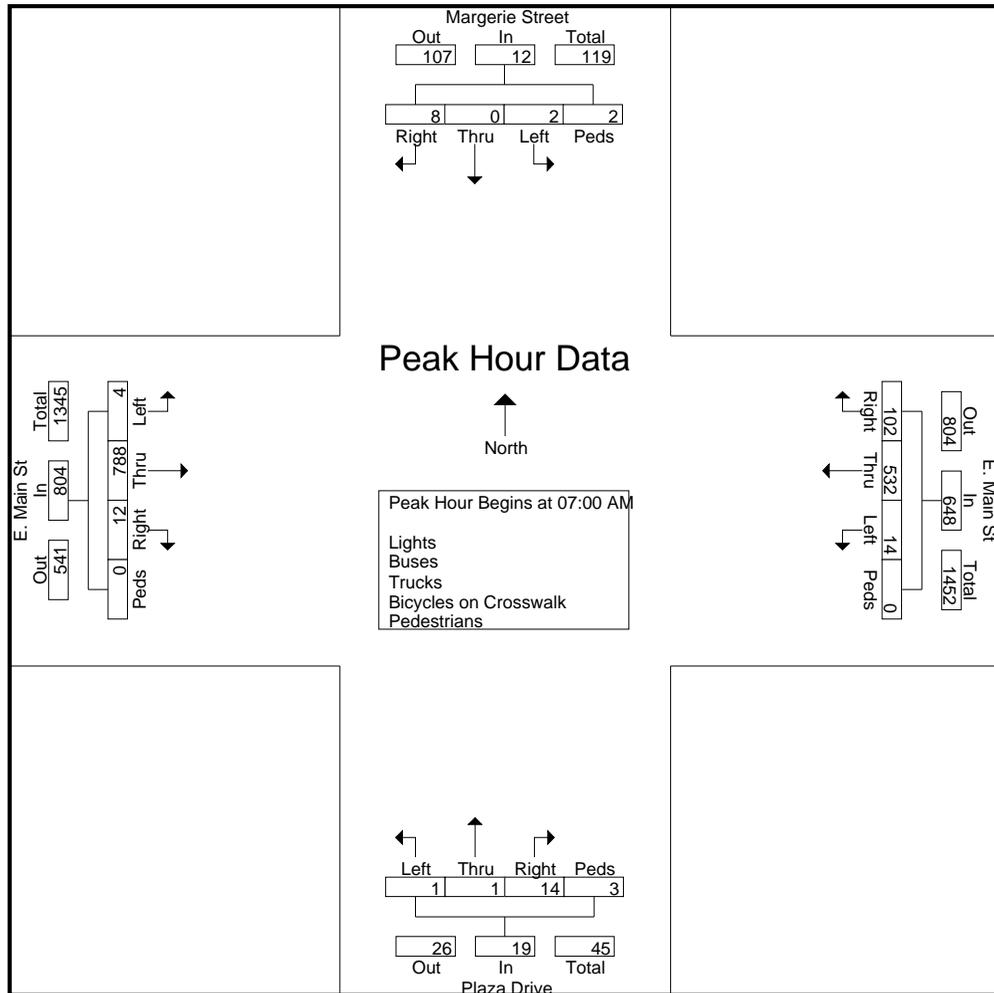
Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	3	0	0	0	3	51	122	6	0	179	4	1	0	0	5	2	206	3	0	211	398
07:15 AM	4	0	1	0	5	44	140	2	0	186	7	0	1	2	10	5	207	1	0	213	414
07:30 AM	0	0	0	0	0	4	118	3	0	125	3	0	0	0	3	3	175	0	0	178	306
07:45 AM	1	0	1	2	4	3	152	3	0	158	0	0	0	1	1	2	200	0	0	202	365
Total	8	0	2	2	12	102	532	14	0	648	14	1	1	3	19	12	788	4	0	804	1483
08:00 AM	0	0	0	1	1	4	115	3	0	122	4	0	2	0	6	5	168	2	0	175	304
08:15 AM	2	0	0	0	2	6	136	7	0	149	2	0	1	1	4	1	181	0	0	182	337
08:30 AM	0	0	0	0	0	4	148	5	0	157	1	0	0	1	2	5	157	0	1	163	322
08:45 AM	3	0	0	3	6	3	145	0	0	148	4	0	1	0	5	3	177	4	0	184	343
Total	5	0	0	4	9	17	544	15	0	576	11	0	4	2	17	14	683	6	1	704	1306
Grand Total	13	0	2	6	21	119	1076	29	0	1224	25	1	5	5	36	26	1471	10	1	1508	2789
Apprch %	61.9	0	9.5	28.6		9.7	87.9	2.4	0		69.4	2.8	13.9	13.9		1.7	97.5	0.7	0.1		
Total %	0.5	0	0.1	0.2	0.8	4.3	38.6	1	0	43.9	0.9	0	0.2	0.2	1.3	0.9	52.7	0.4	0	54.1	
Lights	13	0	2	0	15	119	1022									1423					
% Lights	100	0	100	0	71.4	100	95	93.1	0	95.4	100	100	100	0	86.1	100	96.7	100	0	96.8	95.8
Buses	0	0	0	0	0	0	21	1	0	22	0	0	0	0	0	0	17	0	0	17	39
% Buses	0	0	0	0	0	0	2	3.4	0	1.8	0	0	0	0	0	0	1.2	0	0	1.1	1.4
Trucks	0	0	0	0	0	0	33	1	0	34	0	0	0	0	0	0	31	0	0	31	65
% Trucks	0	0	0	0	0	0	3.1	3.4	0	2.8	0	0	0	0	0	0	2.1	0	0	2.1	2.3
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	16.7	4.8	0	0	0	0	0	0	0	0	20	2.8	0	0	0	0	0	0.1
Pedestrians																					
% Pedestrians	0	0	0	83.3	23.8	0	0	0	0	0	0	0	0	80	11.1	0	0	0	100	0.1	0.4

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17482
Site Code : 17482
Start Date : 6/7/2018
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Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	3	0	0	0	3	51	122	6	0	179	4	1	0	0	5	2	206	3	0	211	398
07:15 AM	4	0	1	0	5	44	140	2	0	186	7	0	1	2	10	5	207	1	0	213	414
07:30 AM	0	0	0	0	0	4	118	3	0	125	3	0	0	0	3	3	175	0	0	178	306
07:45 AM	1	0	1	2	4	3	152	3	0	158	0	0	0	1	1	2	200	0	0	202	365
Total Volume	8	0	2	2	12	102	532	14	0	648	14	1	1	3	19	12	788	4	0	804	1483
% App. Total	66.7	0	16.7	16.7		15.7	82.1	2.2	0		73.7	5.3	5.3	15.8		1.5	98	0.5	0		
PHF	.500	.000	.500	.250	.600	.500	.875	.583	.000	.871	.500	.250	.250	.375	.475	.600	.952	.333	.000	.944	.896



Connecticut Counts LLC

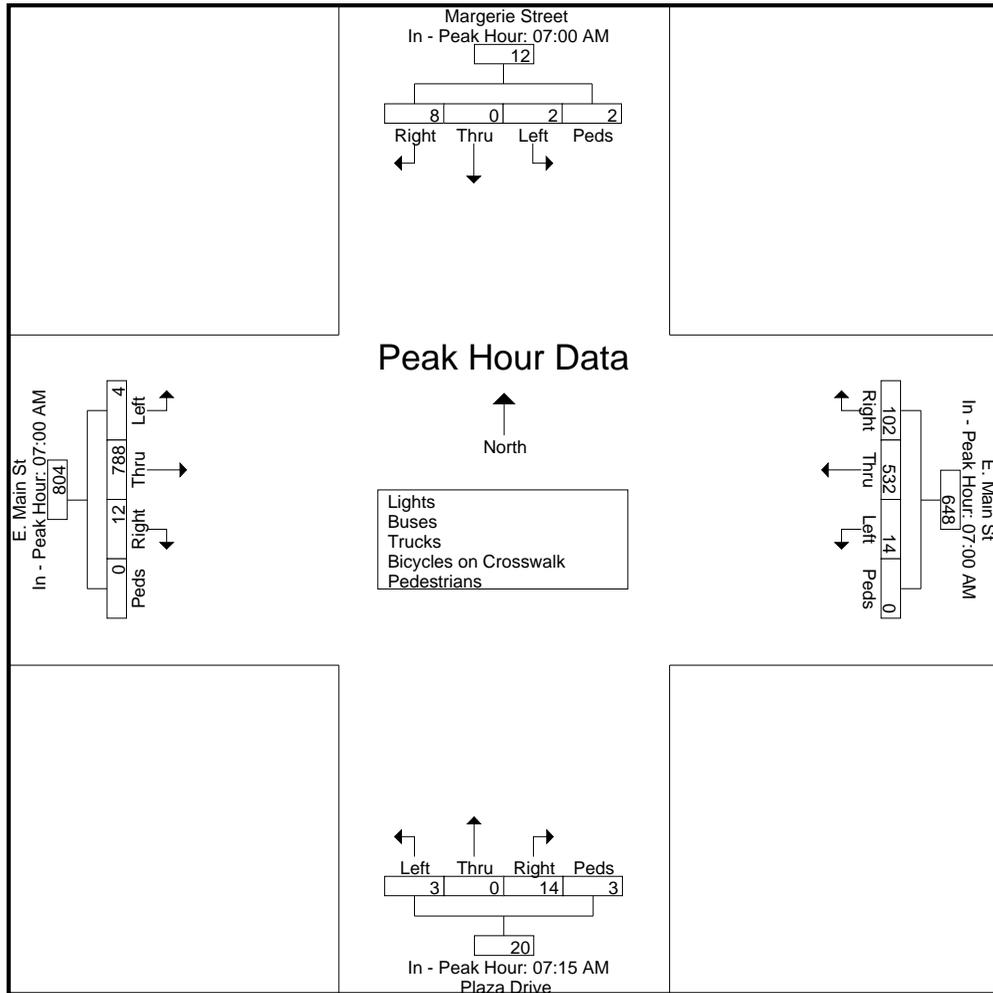
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17482
Site Code : 17482
Start Date : 6/7/2018
Page No : 3

Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM					07:00 AM					07:15 AM					07:00 AM				
+0 mins.	3	0	0	0	3	51	122	6	0	179	7	0	1	2	10	2	206	3	0	211
+15 mins.	4	0	1	0	5	44	140	2	0	186	3	0	0	0	3	5	207	1	0	213
+30 mins.	0	0	0	0	0	4	118	3	0	125	0	0	0	1	1	3	175	0	0	178
+45 mins.	1	0	1	2	4	3	152	3	0	158	4	0	2	0	6	2	200	0	0	202
Total Volume	8	0	2	2	12	102	532	14	0	648	14	0	3	3	20	12	788	4	0	804
% App. Total	66.7	0	16.7	16.7		15.7	82.1	2.2	0		70	0	15	15		1.5	98	0.5	0	
PHF	.500	.000	.500	.250	.600	.500	.875	.583	.000	.871	.500	.000	.375	.375	.500	.600	.952	.333	.000	.944



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main Street at Margerie Street
 Meriden, Connecticut

File Name : 17483
 Site Code : 17483
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	1	0	0	2	3	6	150	10	0	166	4	0	1	1	6	5	130	1	0	136	311
11:15 AM	5	0	1	4	10	10	161	12	0	183	7	0	2	2	11	14	152	5	0	171	375
11:30 AM	4	1	4	0	9	9	142	15	0	166	8	0	2	7	17	14	106	0	0	120	312
11:45 AM	1	0	2	1	4	8	194	20	0	222	18	0	5	3	26	17	168	1	0	186	438
Total	11	1	7	7	26	33	647	57	0	737	37	0	10	13	60	50	556	7	0	613	1436
12:00 PM	1	0	2	3	6	12	207	27	0	246	7	0	4	1	12	15	143	2	0	160	424
12:15 PM	3	1	1	3	8	5	166	19	0	190	10	0	3	1	14	11	176	1	0	188	400
12:30 PM	2	0	1	0	3	9	169	21	0	199	10	0	3	0	13	16	176	2	0	194	409
12:45 PM	5	0	1	1	7	11	177	14	0	202	7	1	1	1	10	15	170	1	0	186	405
Total	11	1	5	7	24	37	719	81	0	837	34	1	11	3	49	57	665	6	0	728	1638
Grand Total	22	2	12	14	50	70	1366	138	0	1574	71	1	21	16	109	107	1221	13	0	1341	3074
Apprch %	44	4	24	28		4.4	86.8	8.8	0		65.1	0.9	19.3	14.7		8	91.1	1	0		
Total %	0.7	0.1	0.4	0.5	1.6	2.3	44.4	4.5	0	51.2	2.3	0	0.7	0.5	3.5	3.5	39.7	0.4	0	43.6	
Lights	22	2	12	0	36	69	1323									1181					
% Lights	100	100	100	0	72	98.6	96.9	98.6	0	97.1	100	100	100	0	85.3	100	96.7	100	0	97	96.2
Buses	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	1	0	0	1	13
% Buses	0	0	0	0	0	0	0.9	0	0	0.8	0	0	0	0	0	0	0.1	0	0	0.1	0.4
Trucks	0	0	0	0	0	1	31	2	0	34	0	0	0	0	0	0	39	0	0	39	73
% Trucks	0	0	0	0	0	1.4	2.3	1.4	0	2.2	0	0	0	0	0	0	3.2	0	0	2.9	2.4
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	14	14	0	0	0	0	0	0	0	0	16	16	0	0	0	0	0	30
% Pedestrians	0	0	0	100	28	0	0	0	0	0	0	0	0	100	14.7	0	0	0	0	0	1

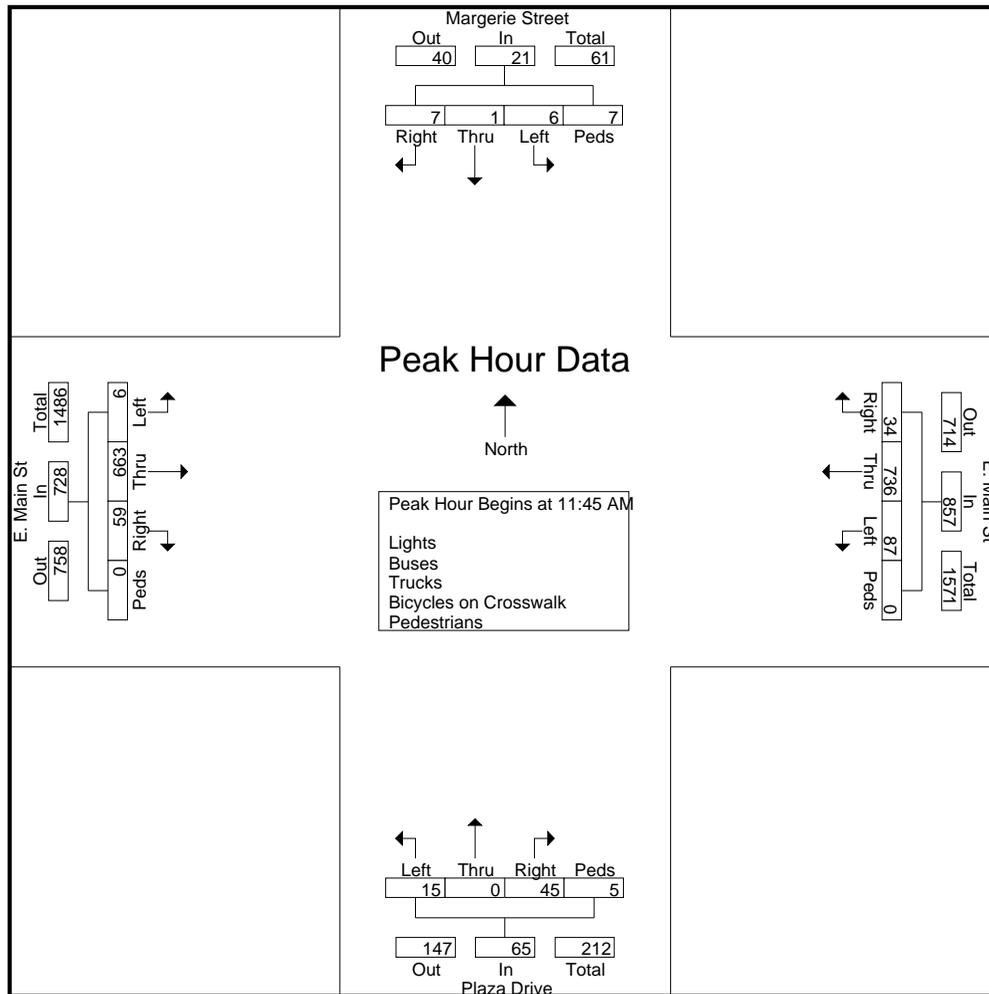
Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 17483
 Site Code : 17483
 Start Date : 6/7/2018
 Page No : 2

	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	1	0	2	1	4	8	194	20	0	222	18	0	5	3	26	17	168	1	0	186	438
12:00 PM	1	0	2	3	6	12	207	27	0	246	7	0	4	1	12	15	143	2	0	160	424
12:15 PM	3	1	1	3	8	5	166	19	0	190	10	0	3	1	14	11	176	1	0	188	400
12:30 PM	2	0	1	0	3	9	169	21	0	199	10	0	3	0	13	16	176	2	0	194	409
Total Volume	7	1	6	7	21	34	736	87	0	857	45	0	15	5	65	59	663	6	0	728	1671
% App. Total	33.3	4.8	28.6	33.3		4	85.9	10.2	0		69.2	0	23.1	7.7		8.1	91.1	0.8	0		
PHF	.583	.250	.750	.583	.656	.708	.889	.806	.000	.871	.625	.000	.750	.417	.625	.868	.942	.750	.000	.938	.954

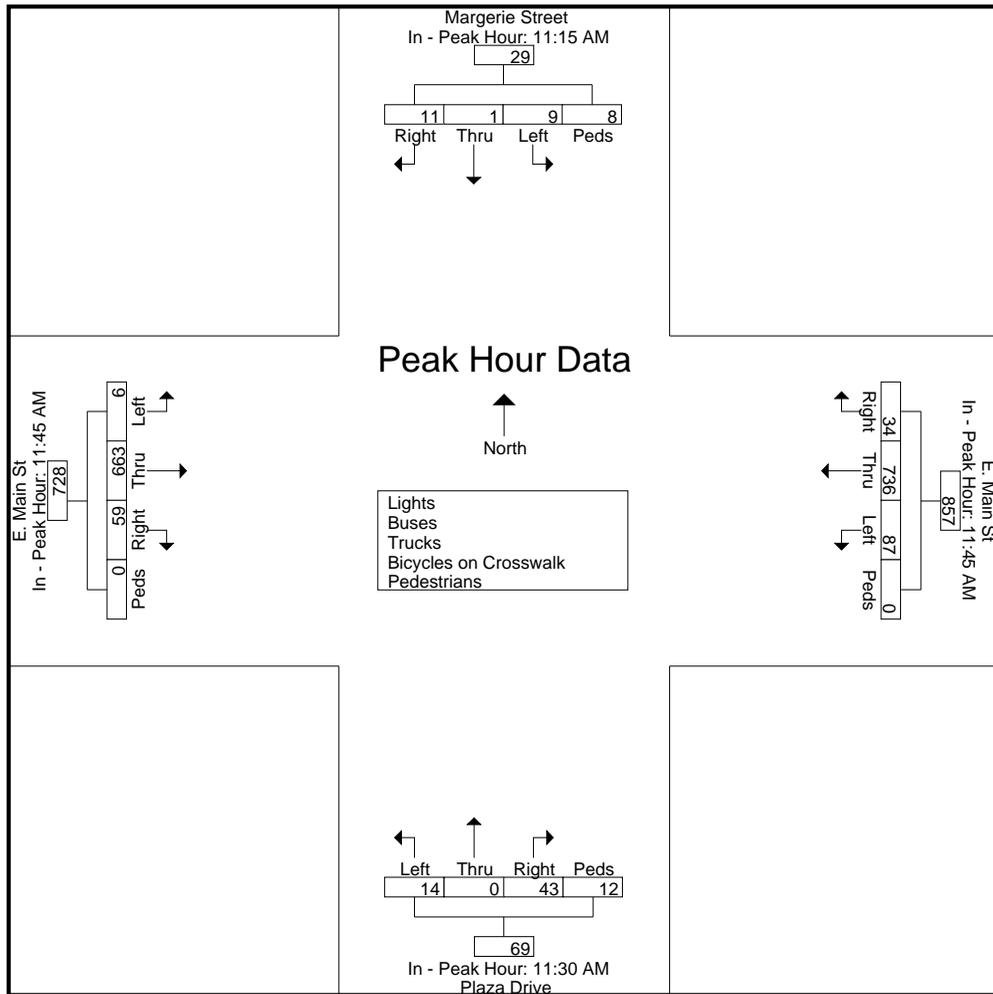


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17483
Site Code : 17483
Start Date : 6/7/2018
Page No : 3

Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	11:15 AM					11:45 AM					11:30 AM					11:45 AM					
+0 mins.	5	0	1	4	10	8	194	20	0	222	8	0	2	7	17	17	168	1	0	186	
+15 mins.	4	1	4	0	9	12	207	27	0	246	18	0	5	3	26	15	143	2	0	160	
+30 mins.	1	0	2	1	4	5	166	19	0	190	7	0	4	1	12	11	176	1	0	188	
+45 mins.	1	0	2	3	6	9	169	21	0	199	10	0	3	1	14	16	176	2	0	194	
Total Volume	11	1	9	8	29	34	736	87	0	857	43	0	14	12	69	59	663	6	0	728	
% App. Total	37.9	3.4	31	27.6		4	85.9	10.2	0		62.3	0	20.3	17.4		8.1	91.1	0.8	0		
PHF	.550	.250	.563	.500	.725	.708	.889	.806	.000	.871	.597	.000	.700	.429	.663	.868	.942	.750	.000	.938	



Connecticut Counts LLC
Kensington, Connecticut 06037
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E. Main Street at Margerie Street
 Meriden, Connecticut

File Name : 17484
 Site Code : 17484
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

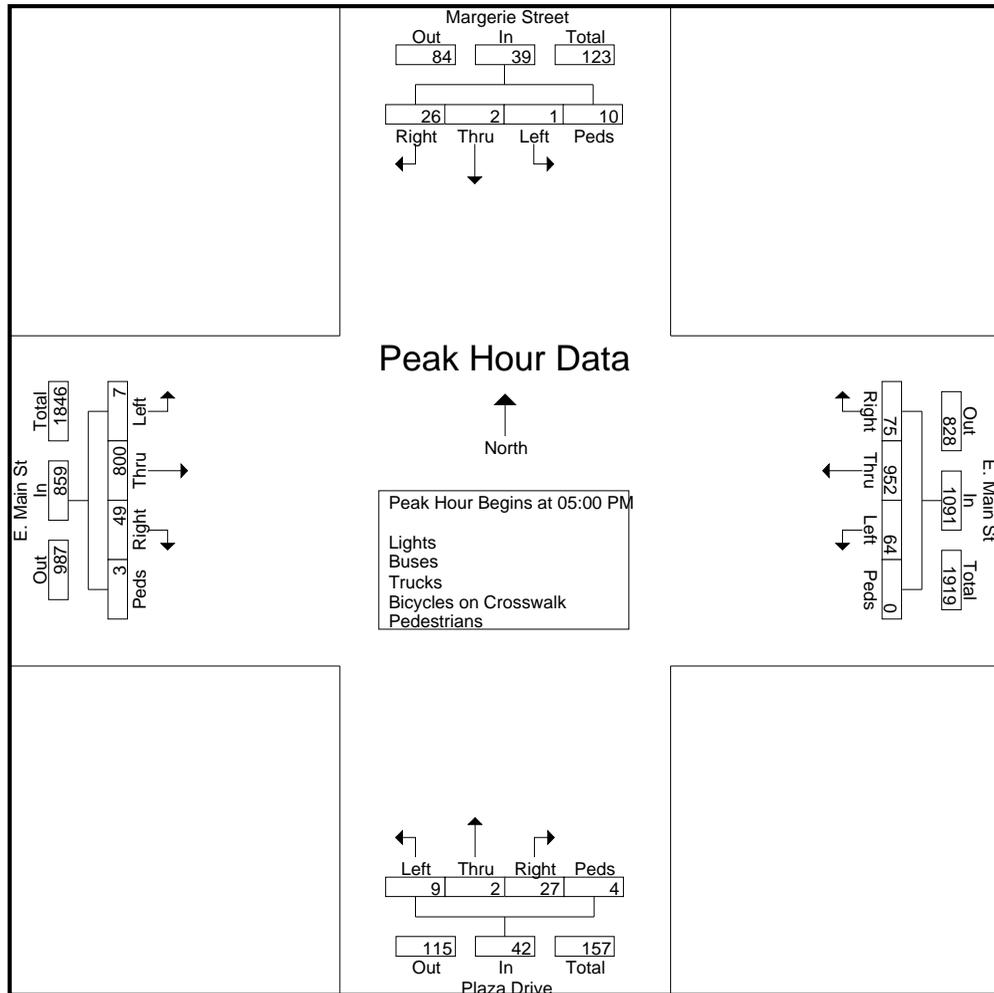
Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	4	1	1	0	6	22	226	10	0	258	11	1	5	0	17	20	178	2	0	200	481
04:15 PM	2	0	2	1	5	19	241	15	0	275	9	0	2	0	11	11	183	3	0	197	488
04:30 PM	5	0	1	0	6	13	239	16	0	268	5	0	1	0	6	11	158	0	0	169	449
04:45 PM	8	1	0	0	9	18	213	15	0	246	6	0	3	0	9	11	178	5	0	194	458
Total	19	2	4	1	26	72	919	56	0	1047	31	1	11	0	43	53	697	10	0	760	1876
05:00 PM	6	0	1	0	7	21	260	19	0	300	8	0	1	1	10	14	181	2	1	198	515
05:15 PM	8	0	0	3	11	27	247	11	0	285	6	2	2	2	12	15	215	1	1	232	540
05:30 PM	6	1	0	1	8	14	237	15	0	266	6	0	3	1	10	15	202	4	1	222	506
05:45 PM	6	1	0	6	13	13	208	19	0	240	7	0	3	0	10	5	202	0	0	207	470
Total	26	2	1	10	39	75	952	64	0	1091	27	2	9	4	42	49	800	7	3	859	2031
Grand Total	45	4	5	11	65	147	1871	120	0	2138	58	3	20	4	85	102	1497	17	3	1619	3907
Apprch %	69.2	6.2	7.7	16.9		6.9	87.5	5.6	0		68.2	3.5	23.5	4.7		6.3	92.5	1.1	0.2		
Total %	1.2	0.1	0.1	0.3	1.7	3.8	47.9	3.1	0	54.7	1.5	0.1	0.5	0.1	2.2	2.6	38.3	0.4	0.1	41.4	
Lights	45	4	4	0	53	147	1849									1484					
% Lights	100	100	80	0	81.5	100	98.8	98.3	0	98.9	96.6	100	100	0	92.9	100	99.1	100	0	99	98.5
Buses	0	0	1	0	1	0	6	0	0	6	2	0	0	0	2	0	1	0	0	1	10
% Buses	0	0	20	0	1.5	0	0.3	0	0	0.3	3.4	0	0	0	2.4	0	0.1	0	0	0.1	0.3
Trucks	0	0	0	0	0	0	16	2	0	18	0	0	0	0	0	0	12	0	0	12	30
% Trucks	0	0	0	0	0	0	0.9	1.7	0	0.8	0	0	0	0	0	0	0.8	0	0	0.7	0.8
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	9.1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	10	10	0	0	0	0	0	0	0	0	4	4	0	0	0	3	3	17
% Pedestrians	0	0	0	90.9	15.4	0	0	0	0	0	0	0	0	100	4.7	0	0	0	100	0.2	0.4

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17484
Site Code : 17484
Start Date : 6/7/2018
Page No : 2

Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	0	1	0	7	21	260	19	0	300	8	0	1	1	10	14	181	2	1	198	515
05:15 PM	8	0	0	3	11	27	247	11	0	285	6	2	2	2	12	15	215	1	1	232	540
05:30 PM	6	1	0	1	8	14	237	15	0	266	6	0	3	1	10	15	202	4	1	222	506
05:45 PM	6	1	0	6	13	13	208	19	0	240	7	0	3	0	10	5	202	0	0	207	470
Total Volume	26	2	1	10	39	75	952	64	0	1091	27	2	9	4	42	49	800	7	3	859	2031
% App. Total	66.7	5.1	2.6	25.6		6.9	87.3	5.9	0		64.3	4.8	21.4	9.5		5.7	93.1	0.8	0.3		
PHF	.813	.500	.250	.417	.750	.694	.915	.842	.000	.909	.844	.250	.750	.500	.875	.817	.930	.438	.750	.926	.940



Connecticut Counts LLC

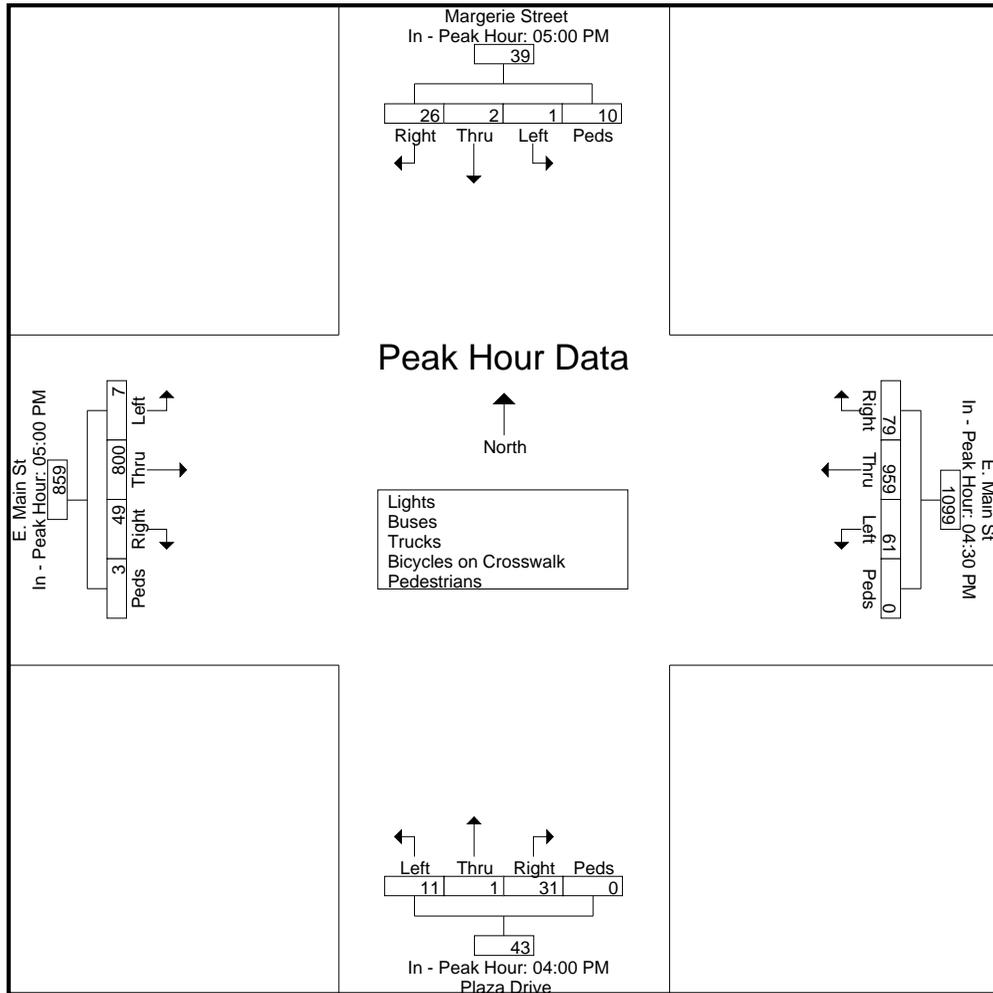
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17484
Site Code : 17484
Start Date : 6/7/2018
Page No : 3

Start Time	Margerie Street From North					E. Main St From East					Plaza Drive From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM					04:30 PM					04:00 PM					05:00 PM				
+0 mins.	6	0	1	0	7	13	239	16	0	268	11	1	5	0	17	14	181	2	1	198
+15 mins.	8	0	0	3	11	18	213	15	0	246	9	0	2	0	11	15	215	1	1	232
+30 mins.	6	1	0	1	8	21	260	19	0	300	5	0	1	0	6	15	202	4	1	222
+45 mins.	6	1	0	6	13	27	247	11	0	285	6	0	3	0	9	5	202	0	0	207
Total Volume	26	2	1	10	39	79	959	61	0	1099	31	1	11	0	43	49	800	7	3	859
% App. Total	66.7	5.1	2.6	25.6		7.2	87.3	5.6	0		72.1	2.3	25.6	0		5.7	93.1	0.8	0.3	
PHF	.813	.500	.250	.417	.750	.731	.922	.803	.000	.916	.705	.250	.550	.000	.632	.817	.930	.438	.750	.926



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Parkway Pl/Plaza Dr
 Meriden, Connecticut

File Name : 17485
 Site Code : 17485
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

Start Time	Parkway place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	3	0	1	1	5	1	135	22	0	158	3	0	8	1	12	21	177	0	0	198	373
07:15 AM	1	0	2	0	3	1	149	28	0	178	0	0	5	2	7	19	175	1	0	195	383
07:30 AM	0	0	1	0	1	0	151	22	0	173	2	0	8	0	10	28	191	3	0	222	406
07:45 AM	5	1	2	0	8	7	150	33	0	190	0	0	9	0	9	27	180	0	0	207	414
Total	9	1	6	1	17	9	585	105	0	699	5	0	30	3	38	95	723	4	0	822	1576
08:00 AM	2	0	1	0	3	0	131	22	0	153	5	0	16	0	21	27	141	0	0	168	345
08:15 AM	1	0	2	0	3	1	115	29	0	145	2	0	11	1	14	21	135	4	0	160	322
08:30 AM	1	0	3	0	4	0	110	28	0	138	2	0	13	0	15	28	118	0	0	146	303
08:45 AM	0	0	2	0	2	0	113	27	0	140	3	1	9	0	13	17	143	0	0	160	315
Total	4	0	8	0	12	1	469	106	0	576	12	1	49	1	63	93	537	4	0	634	1285
Grand Total	13	1	14	1	29	10	1054	211	0	1275	17	1	79	4	101	188	1260	8	0	1456	2861
Apprch %	44.8	3.4	48.3	3.4		0.8	82.7	16.5	0		16.8	1	78.2	4		12.9	86.5	0.5	0		
Total %	0.5	0	0.5	0	1	0.3	36.8	7.4	0	44.6	0.6	0	2.8	0.1	3.5	6.6	44	0.3	0	50.9	
Unshifted	13	1	12	1	27	10	1034	208	0	1252	17	1	77	4	99	185	1239	8	0	1432	2810
% Unshifted	100	100	85.7	100	93.1	100	98.1	98.6	0	98.2	100	100	97.5	100	98	98.4	98.3	100	0	98.4	98.2
Bank 1	0	0	2	0	2	0	12	3	0	15	0	0	2	0	2	3	10	0	0	13	32
% Bank 1	0	0	14.3	0	6.9	0	1.1	1.4	0	1.2	0	0	2.5	0	2	1.6	0.8	0	0	0.9	1.1
Bank 2	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	11	0	0	11	19
% Bank 2	0	0	0	0	0	0	0.8	0	0	0.6	0	0	0	0	0	0	0.9	0	0	0.8	0.7

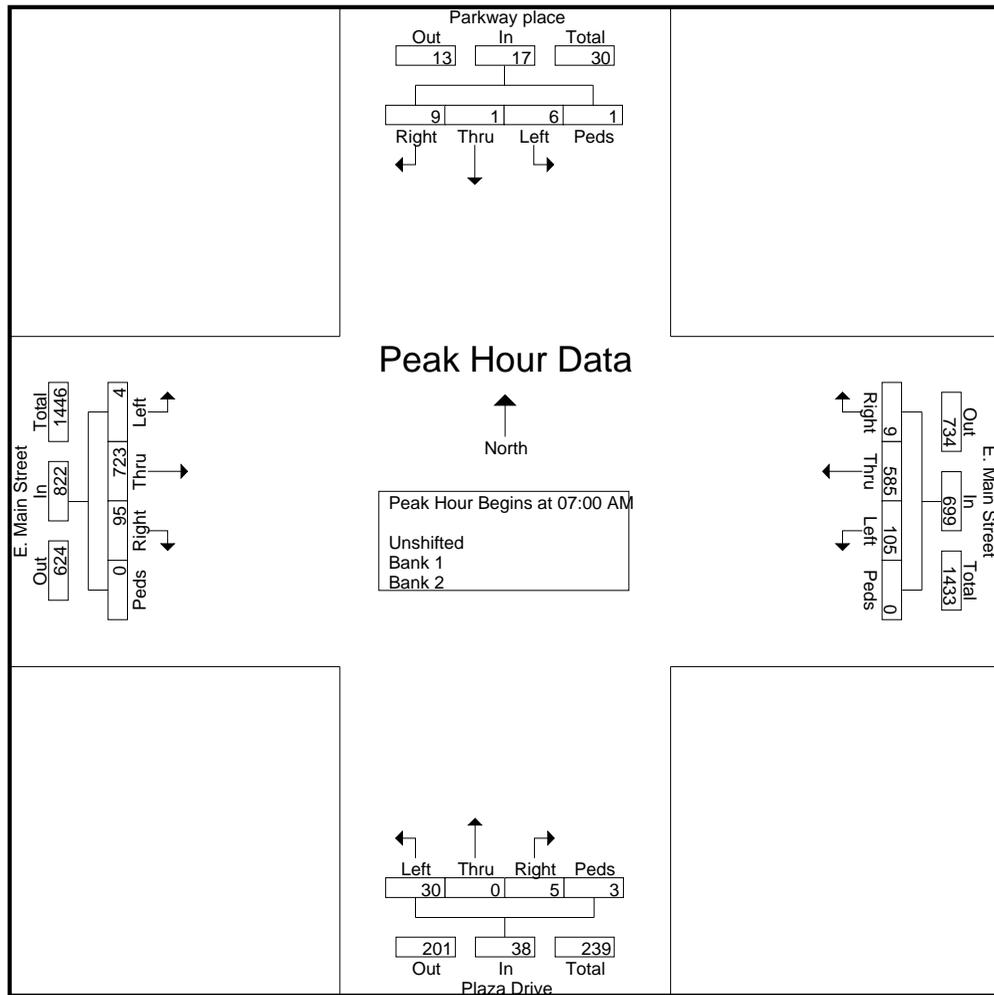
Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Parkway Pl/Plaza Dr
Meriden, Connecticut

File Name : 17485
Site Code : 17485
Start Date : 6/7/2018
Page No : 2

Start Time	Parkway place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	3	0	1	1	5	1	135	22	0	158	3	0	8	1	12	21	177	0	0	198	373
07:15 AM	1	0	2	0	3	1	149	28	0	178	0	0	5	2	7	19	175	1	0	195	383
07:30 AM	0	0	1	0	1	0	151	22	0	173	2	0	8	0	10	28	191	3	0	222	406
07:45 AM	5	1	2	0	8	7	150	33	0	190	0	0	9	0	9	27	180	0	0	207	414
Total Volume	9	1	6	1	17	9	585	105	0	699	5	0	30	3	38	95	723	4	0	822	1576
% App. Total	52.9	5.9	35.3	5.9		1.3	83.7	15	0		13.2	0	78.9	7.9		11.6	88	0.5	0		
PHF	.450	.250	.750	.250	.531	.321	.969	.795	.000	.920	.417	.000	.833	.375	.792	.848	.946	.333	.000	.926	.952



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Parkway Pl/Plaza Dr
Meriden, Connecticut

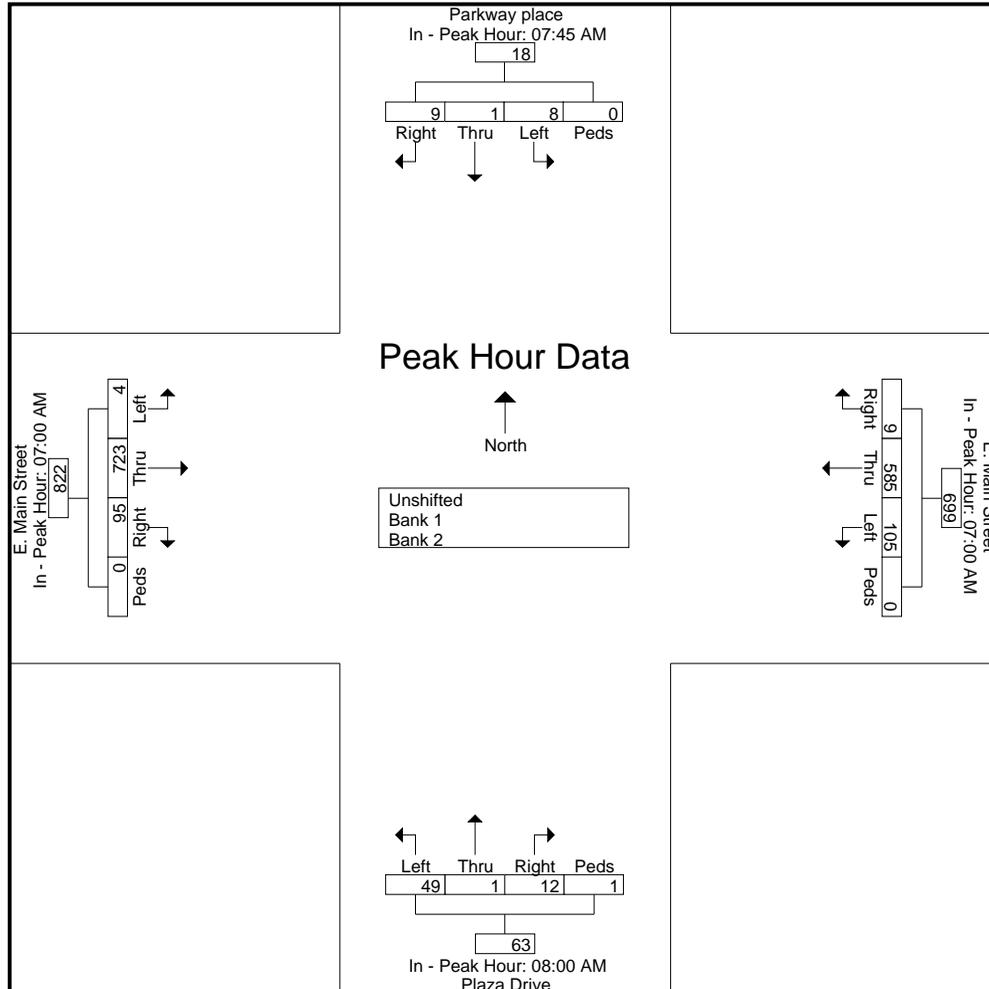
File Name : 17485
Site Code : 17485
Start Date : 6/7/2018
Page No : 3

Start Time	Parkway place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM					07:00 AM					08:00 AM					07:00 AM				
+0 mins.	5	1	2	0	8	1	135	22	0	158	5	0	16	0	21	21	177	0	0	198
+15 mins.	2	0	1	0	3	1	149	28	0	178	2	0	11	1	14	19	175	1	0	195
+30 mins.	1	0	2	0	3	0	151	22	0	173	2	0	13	0	15	28	191	3	0	222
+45 mins.	1	0	3	0	4	7	150	33	0	190	3	1	9	0	13	27	180	0	0	207
Total Volume	9	1	8	0	18	9	585	105	0	699	12	1	49	1	63	95	723	4	0	822
% App. Total	50	5.6	44.4	0		1.3	83.7	15	0		19	1.6	77.8	1.6		11.6	88	0.5	0	
PHF	.450	.250	.667	.000	.563	.321	.969	.795	.000	.920	.600	.250	.766	.250	.750	.848	.946	.333	.000	.926



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Parkway Pl/Plaza Dr
 Meriden, Connecticut

File Name : 17486
 Site Code : 17486
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

Start Time	Parkway Place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	1	0	1	0	2	1	165	12	0	178	0	0	13	0	13	16	147	0	0	163	356
11:15 AM	13	0	4	2	19	3	169	10	0	182	1	0	9	0	10	13	151	3	0	167	378
11:30 AM	1	0	0	0	1	1	171	14	0	186	3	0	7	0	10	19	179	2	0	200	397
11:45 AM	6	0	2	0	8	3	181	13	0	197	1	0	7	1	9	16	171	2	0	189	403
Total	21	0	7	2	30	8	686	49	0	743	5	0	36	1	42	64	648	7	0	719	1534
12:00 PM	4	0	1	0	5	1	211	15	0	227	2	0	4	0	6	17	169	6	0	192	430
12:15 PM	1	0	3	0	4	3	251	10	0	264	2	0	6	0	8	21	198	2	0	221	497
12:30 PM	5	0	3	0	8	4	211	13	0	228	3	0	3	0	6	21	195	2	0	218	460
12:45 PM	3	0	2	0	5	2	115	8	0	125	2	0	7	0	9	5	114	1	1	121	260
Total	13	0	9	0	22	10	788	46	0	844	9	0	20	0	29	64	676	11	1	752	1647
Grand Total	34	0	16	2	52	18	1474	95	0	1587	14	0	56	1	71	128	1324	18	1	1471	3181
Apprch %	65.4	0	30.8	3.8		1.1	92.9	6	0		19.7	0	78.9	1.4		8.7	90	1.2	0.1		
Total %	1.1	0	0.5	0.1	1.6	0.6	46.3	3	0	49.9	0.4	0	1.8	0	2.2	4	41.6	0.6	0	46.2	
Unshifted	33	0	16	2	51	18	1447	95	0	1560	14	0	56	1	71	128	1296	17	1	1442	3124
% Unshifted	97.1	0	100	100	98.1	100	98.2	100	0	98.3	100	0	100	100	100	100	97.9	94.4	100	98	98.2
Bank 1	1	0	0	0	1	0	19	0	0	19	0	0	0	0	0	0	22	1	0	23	43
% Bank 1	2.9	0	0	0	1.9	0	1.3	0	0	1.2	0	0	0	0	0	0	1.7	5.6	0	1.6	1.4
Bank 2	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	14
% Bank 2	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0	0.5	0	0	0.4	0.4

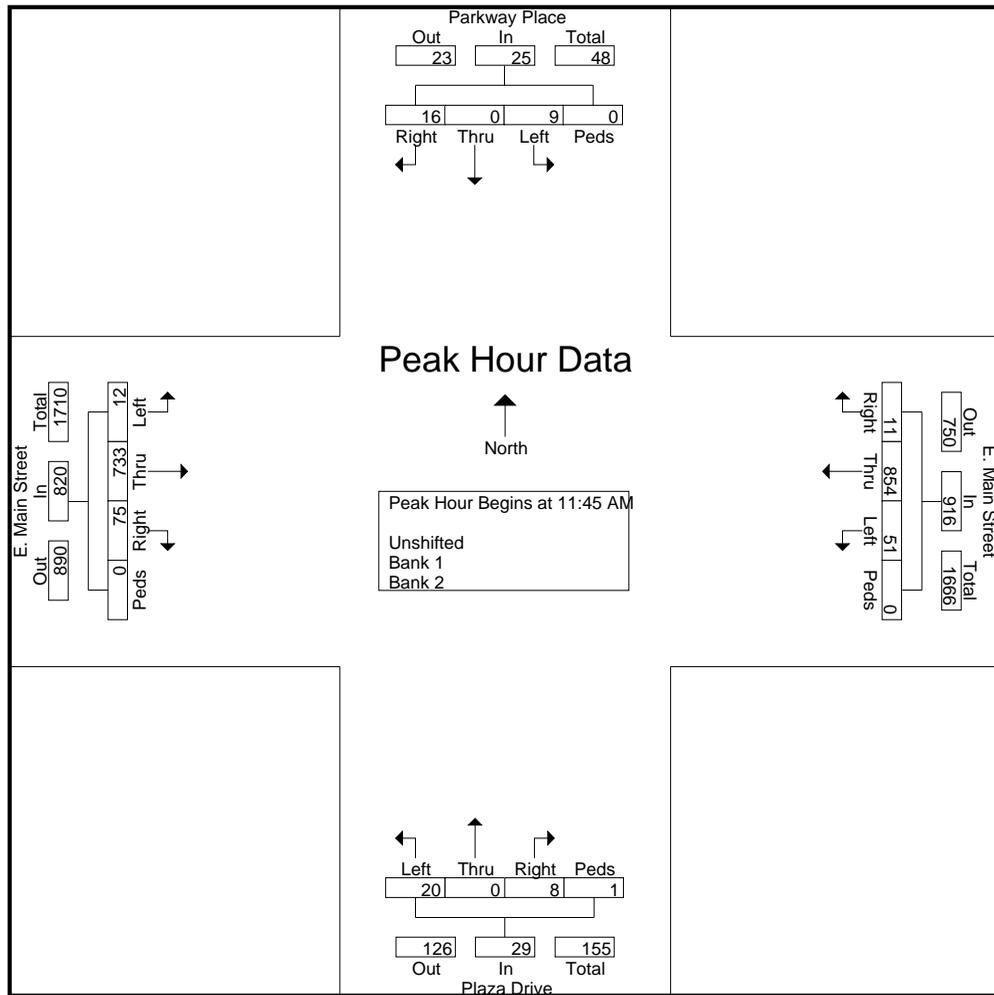
Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Parkway Pl/Plaza Dr
Meriden, Connecticut

File Name : 17486
Site Code : 17486
Start Date : 6/7/2018
Page No : 2

Start Time	Parkway Place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	6	0	2	0	8	3	181	13	0	197	1	0	7	1	9	16	171	2	0	189	403
12:00 PM	4	0	1	0	5	1	211	15	0	227	2	0	4	0	6	17	169	6	0	192	430
12:15 PM	1	0	3	0	4	3	251	10	0	264	2	0	6	0	8	21	198	2	0	221	497
12:30 PM	5	0	3	0	8	4	211	13	0	228	3	0	3	0	6	21	195	2	0	218	460
Total Volume	16	0	9	0	25	11	854	51	0	916	8	0	20	1	29	75	733	12	0	820	1790
% App. Total	64	0	36	0		1.2	93.2	5.6	0		27.6	0	69	3.4		9.1	89.4	1.5	0		
PHF	.667	.000	.750	.000	.781	.688	.851	.850	.000	.867	.667	.000	.714	.250	.806	.893	.926	.500	.000	.928	.900



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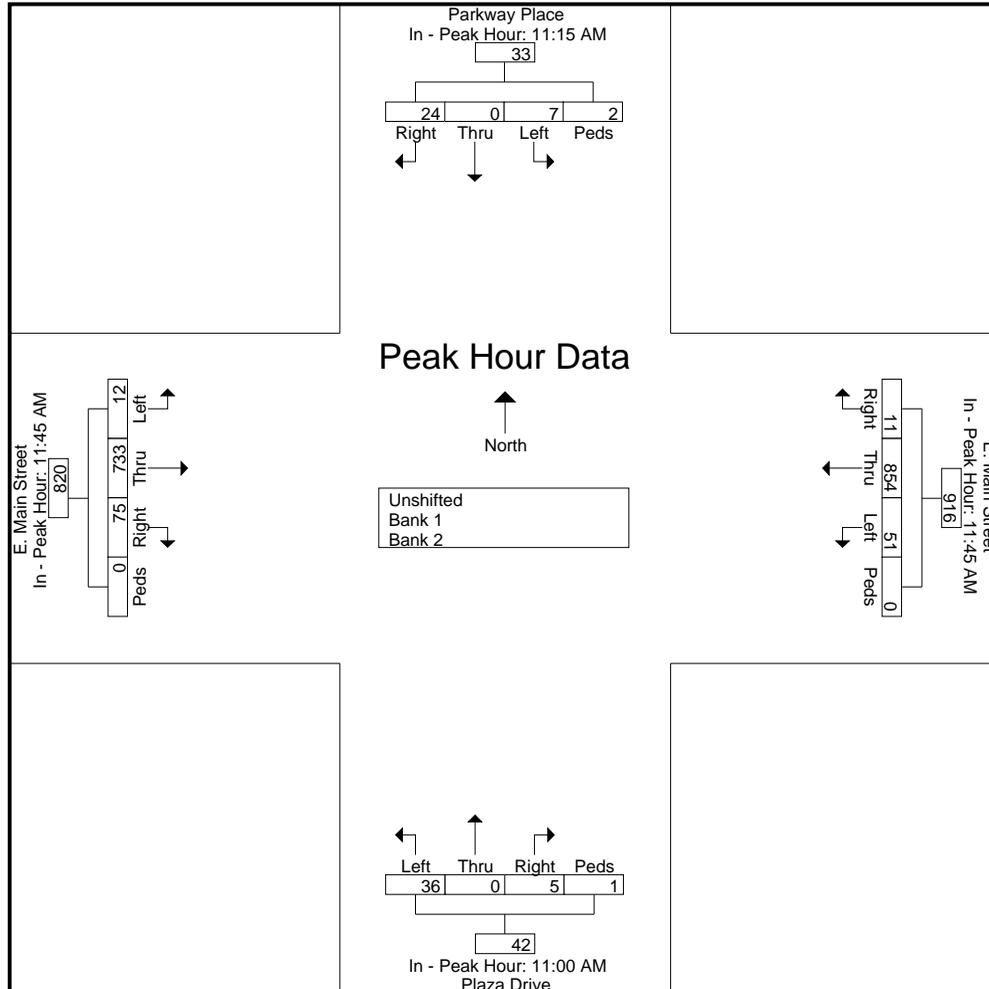
File Name : 17486
Site Code : 17486
Start Date : 6/7/2018
Page No : 3

Start Time	Parkway Place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	11:15 AM					11:45 AM					11:00 AM					11:45 AM				
+0 mins.	13	0	4	2	19	3	181	13	0	197	0	0	13	0	13	16	171	2	0	189
+15 mins.	1	0	0	0	1	1	211	15	0	227	1	0	9	0	10	17	169	6	0	192
+30 mins.	6	0	2	0	8	3	251	10	0	264	3	0	7	0	10	21	198	2	0	221
+45 mins.	4	0	1	0	5	4	211	13	0	228	1	0	7	1	9	21	195	2	0	218
Total Volume	24	0	7	2	33	11	854	51	0	916	5	0	36	1	42	75	733	12	0	820
% App. Total	72.7	0	21.2	6.1		1.2	93.2	5.6	0		11.9	0	85.7	2.4		9.1	89.4	1.5	0	
PHF	.462	.000	.438	.250	.434	.688	.851	.850	.000	.867	.417	.000	.692	.250	.808	.893	.926	.500	.000	.928



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E. Main St at Parkway Pleace/private Dr
 Meriden, Connecticut

File Name : 17487
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 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

Start Time	Parkway Place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	2	0	0	0	2	5	226	4	0	235	1	0	3	1	5	4	154	1	0	159	401
04:15 PM	3	0	1	2	6	4	224	6	0	234	1	0	2	0	3	5	171	1	0	177	420
04:30 PM	0	0	1	0	1	2	206	6	0	214	1	0	2	0	3	8	157	0	0	165	383
04:45 PM	2	0	3	0	5	2	197	8	0	207	1	0	4	0	5	10	168	1	0	179	396
Total	7	0	5	2	14	13	853	24	0	890	4	0	11	1	16	27	650	3	0	680	1600
05:00 PM	1	0	1	0	2	1	248	12	0	261	3	0	4	0	7	2	195	3	0	200	470
05:15 PM	3	0	0	0	3	12	232	13	0	257	3	0	4	0	7	9	205	4	0	218	485
05:30 PM	1	0	5	1	7	2	250	11	0	263	0	0	2	0	2	5	192	2	0	199	471
05:45 PM	2	0	0	2	4	1	226	10	0	237	0	0	3	4	7	7	183	1	4	195	443
Total	7	0	6	3	16	16	956	46	0	1018	6	0	13	4	23	23	775	10	4	812	1869
Grand Total	14	0	11	5	30	29	1809	70	0	1908	10	0	24	5	39	50	1425	13	4	1492	3469
Apprch %	46.7	0	36.7	16.7		1.5	94.8	3.7	0		25.6	0	61.5	12.8		3.4	95.5	0.9	0.3		
Total %	0.4	0	0.3	0.1	0.9	0.8	52.1	2	0	55	0.3	0	0.7	0.1	1.1	1.4	41.1	0.4	0.1	43	
Unshifted	14	0	11	5	30	29	1802	70	0	1901	10	0	24	5	39	50	1422	13	4	1489	3459
% Unshifted	100	0	100	100	100	100	99.6	100	0	99.6	100	0	100	100	100	100	99.8	100	100	99.8	99.7
Bank 1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
% Bank 1	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0.2	0	0	0.2	0.2
Bank 2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
% Bank 2	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0.1

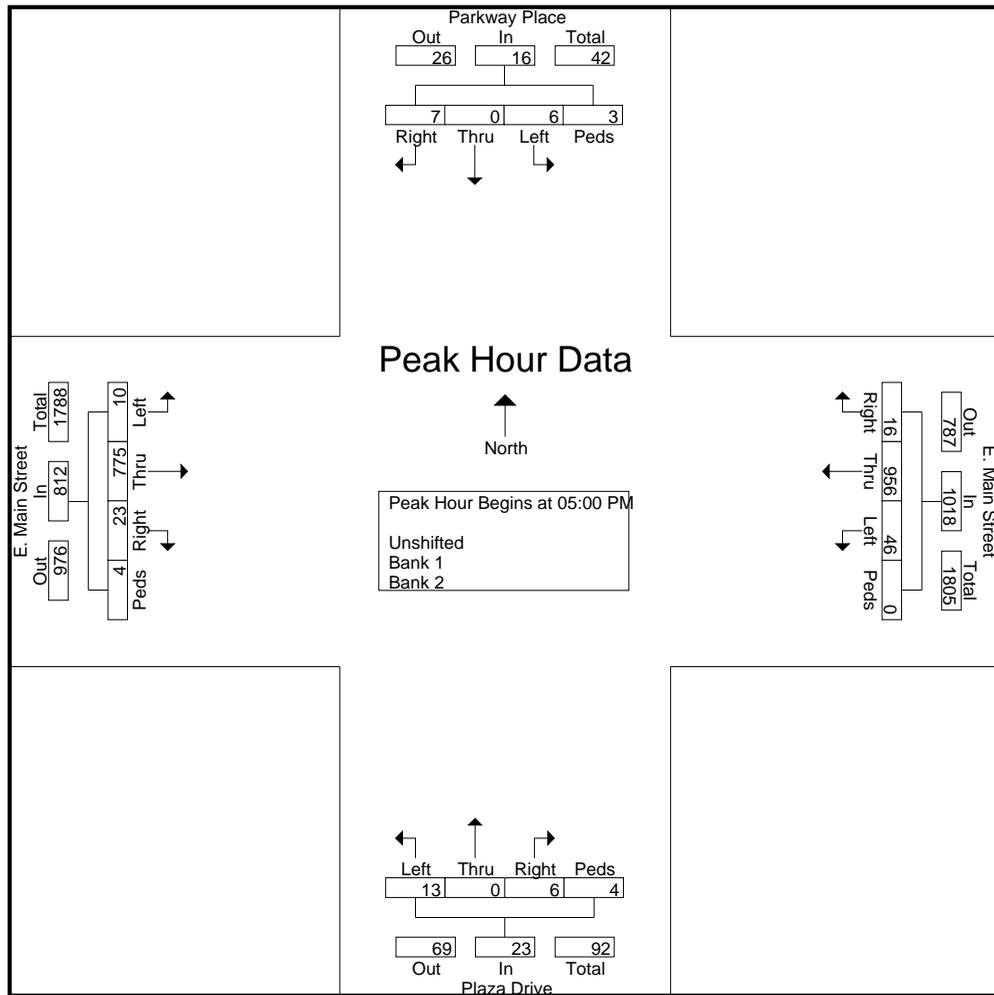
Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

E. Main St at Parkway Place/private Dr
Meriden, Connecticut

File Name : 17487
Site Code : 17487
Start Date : 6/7/2018
Page No : 2

Start Time	Parkway Place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	0	1	0	2	1	248	12	0	261	3	0	4	0	7	2	195	3	0	200	470
05:15 PM	3	0	0	0	3	12	232	13	0	257	3	0	4	0	7	9	205	4	0	218	485
05:30 PM	1	0	5	1	7	2	250	11	0	263	0	0	2	0	2	5	192	2	0	199	471
05:45 PM	2	0	0	2	4	1	226	10	0	237	0	0	3	4	7	7	183	1	4	195	443
Total Volume	7	0	6	3	16	16	956	46	0	1018	6	0	13	4	23	23	775	10	4	812	1869
% App. Total	43.8	0	37.5	18.8		1.6	93.9	4.5	0		26.1	0	56.5	17.4		2.8	95.4	1.2	0.5		
PHF	.583	.000	.300	.375	.571	.333	.956	.885	.000	.968	.500	.000	.813	.250	.821	.639	.945	.625	.250	.931	.963



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E. Main St at Parkway Place/private Dr
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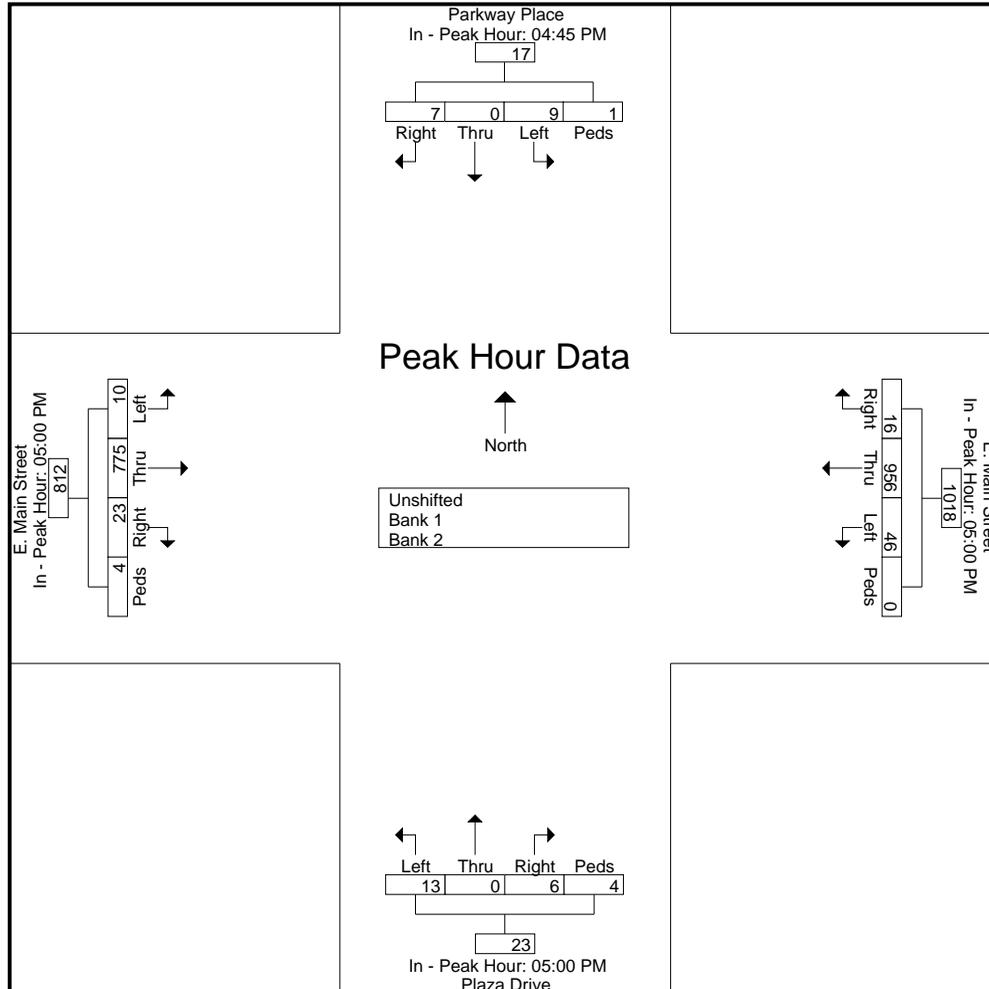
File Name : 17487
Site Code : 17487
Start Date : 6/7/2018
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Start Time	Parkway Place From North					E. Main Street From East					Plaza Drive From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:45 PM					05:00 PM					05:00 PM					05:00 PM				
+0 mins.	2	0	3	0	5	1	248	12	0	261	3	0	4	0	7	2	195	3	0	200
+15 mins.	1	0	1	0	2	12	232	13	0	257	3	0	4	0	7	9	205	4	0	218
+30 mins.	3	0	0	0	3	2	250	11	0	263	0	0	2	0	2	5	192	2	0	199
+45 mins.	1	0	5	1	7	1	226	10	0	237	0	0	3	4	7	7	183	1	4	195
Total Volume	7	0	9	1	17	16	956	46	0	1018	6	0	13	4	23	23	775	10	4	812
% App. Total	41.2	0	52.9	5.9		1.6	93.9	4.5	0		26.1	0	56.5	17.4		2.8	95.4	1.2	0.5	
PHF	.583	.000	.450	.250	.607	.333	.956	.885	.000	.968	.500	.000	.813	.250	.821	.639	.945	.625	.250	.931



Connecticut Counts LLC
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E. Main St at Hotel/E. Station Dr
 Meriden, Connecticut

File Name : 17491
 Site Code : 17491
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

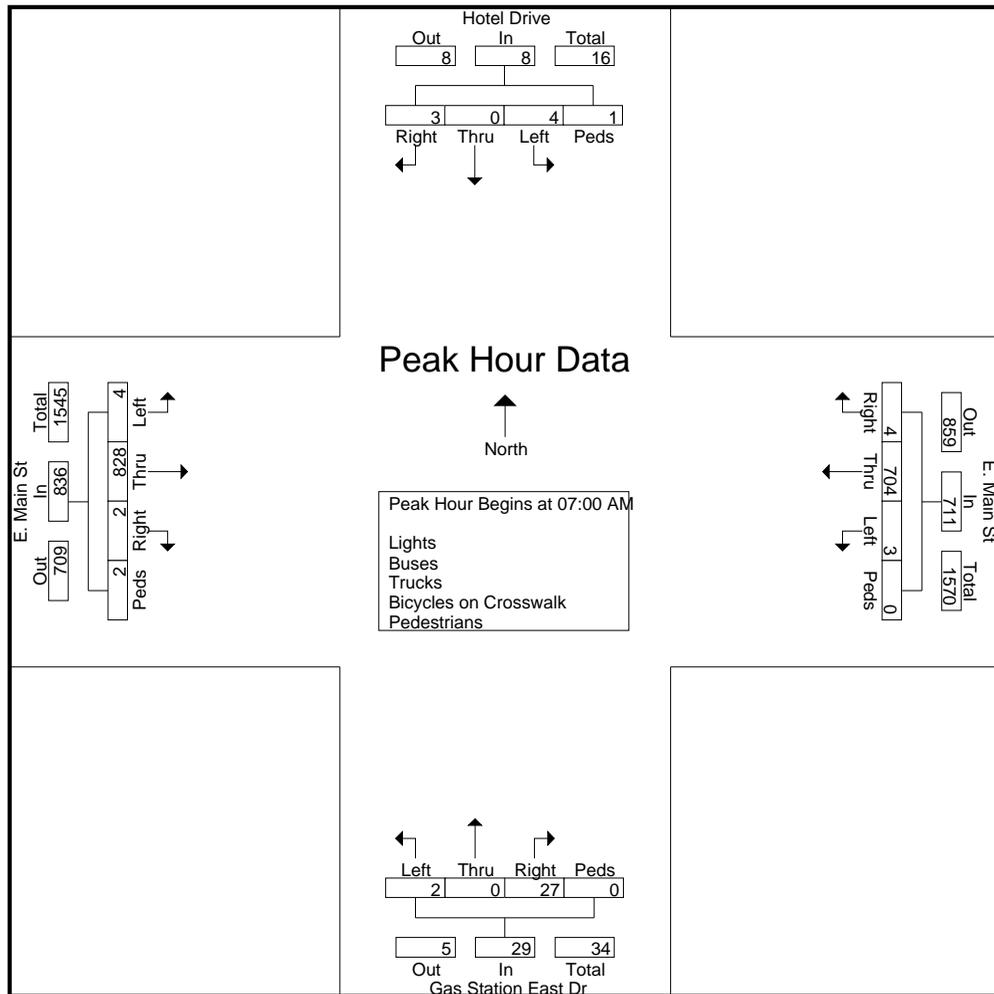
Start Time	Hotel Drive From North					E. Main St From East					Gas Station East Dr From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	1	0	2	1	4	1	182	1	0	184	9	0	1	0	10	0	187	1	2	190	388
07:15 AM	0	0	0	0	0	0	208	0	0	208	7	0	0	0	7	0	226	2	0	228	443
07:30 AM	1	0	0	0	1	0	147	1	0	148	5	0	1	0	6	1	202	1	0	204	359
07:45 AM	1	0	2	0	3	3	167	1	0	171	6	0	0	0	6	1	213	0	0	214	394
Total	3	0	4	1	8	4	704	3	0	711	27	0	2	0	29	2	828	4	2	836	1584
08:00 AM	4	0	0	1	5	0	145	0	0	145	7	0	0	0	7	0	198	1	0	199	356
08:15 AM	0	0	0	0	0	0	149	0	0	149	5	0	2	0	7	0	187	0	0	187	343
08:30 AM	1	0	1	0	2	0	168	0	0	168	12	0	1	0	13	1	179	2	0	182	365
08:45 AM	0	0	1	3	4	2	154	0	0	156	6	0	0	0	6	0	175	3	0	178	344
Total	5	0	2	4	11	2	616	0	0	618	30	0	3	0	33	1	739	6	0	746	1408
Grand Total	8	0	6	5	19	6	1320	3	0	1329	57	0	5	0	62	3	1567	10	2	1582	2992
Apprch %	42.1	0	31.6	26.3		0.5	99.3	0.2	0		91.9	0	8.1	0		0.2	99.1	0.6	0.1		
Total %	0.3	0	0.2	0.2	0.6	0.2	44.1	0.1	0	44.4	1.9	0	0.2	0	2.1	0.1	52.4	0.3	0.1	52.9	
Lights	7	0	6	0	13	4	1277									1516					
% Lights	87.5	0	100	0	68.4	66.7	96.7	100	0	96.6	100	0	100	0	100	100	96.7	90	0	96.6	96.5
Buses	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	18	0	0	18	32
% Buses	0	0	0	0	0	0	1.1	0	0	1.1	0	0	0	0	0	0	1.1	0	0	1.1	1.1
Trucks	1	0	0	0	1	2	29	0	0	31	0	0	0	0	0	0	33	1	0	34	66
% Trucks	12.5	0	0	0	5.3	33.3	2.2	0	0	2.3	0	0	0	0	0	0	2.1	10	0	2.1	2.2
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	20	5.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	6
% Pedestrians	0	0	0	80	21.1	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.1	0.2

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File Name : 17491
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Start Time	Hotel Drive From North					E. Main St From East					Gas Station East Dr From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	1	0	2	1	4	1	182	1	0	184	9	0	1	0	10	0	187	1	2	190	388
07:15 AM	0	0	0	0	0	0	208	0	0	208	7	0	0	0	7	0	226	2	0	228	443
07:30 AM	1	0	0	0	1	0	147	1	0	148	5	0	1	0	6	1	202	1	0	204	359
07:45 AM	1	0	2	0	3	3	167	1	0	171	6	0	0	0	6	1	213	0	0	214	394
Total Volume	3	0	4	1	8	4	704	3	0	711	27	0	2	0	29	2	828	4	2	836	1584
% App. Total	37.5	0	50	12.5		0.6	99	0.4	0		93.1	0	6.9	0		0.2	99	0.5	0.2		
PHF	.750	.000	.500	.250	.500	.333	.846	.750	.000	.855	.750	.000	.500	.000	.725	.500	.916	.500	.250	.917	.894



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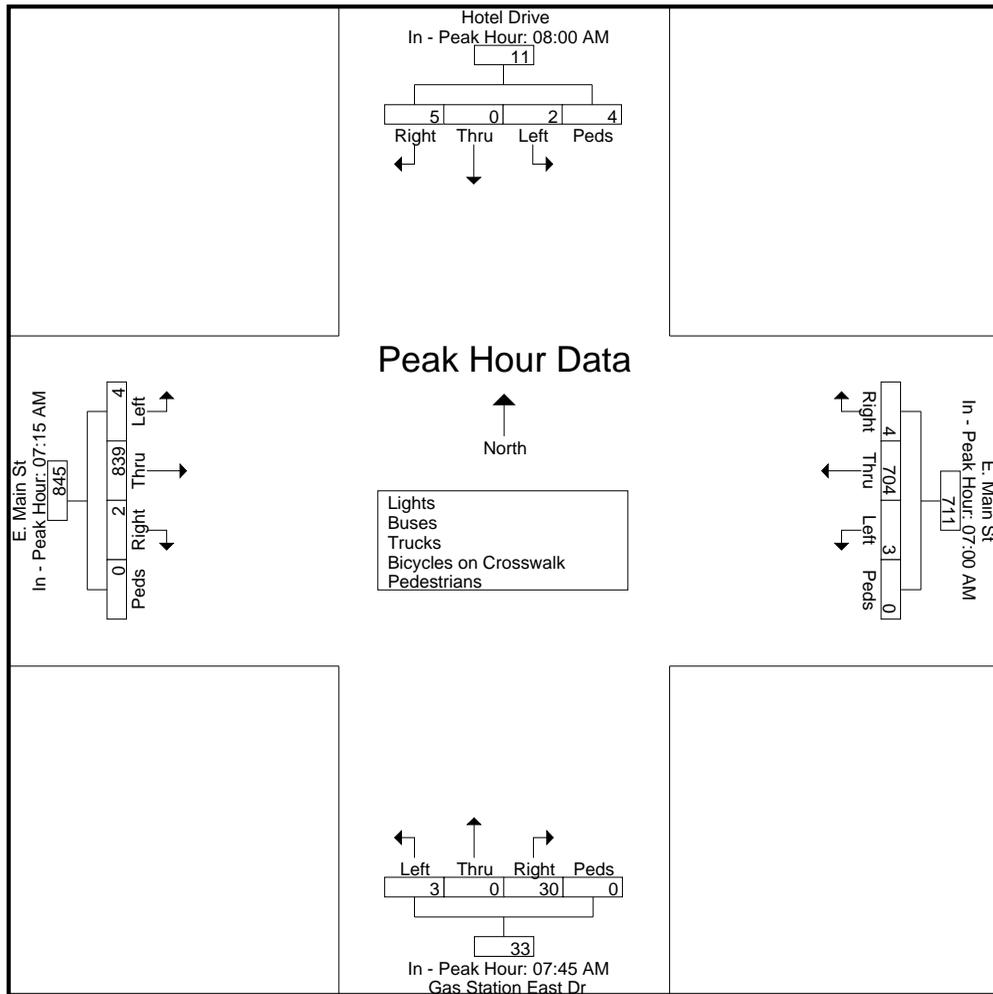
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Site Code : 17491
Start Date : 6/7/2018
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Start Time	Hotel Drive From North					E. Main St From East					Gas Station East Dr From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	08:00 AM					07:00 AM					07:45 AM					07:15 AM				
+0 mins.	4	0	0	1	5	1	182	1	0	184	6	0	0	0	6	0	226	2	0	228
+15 mins.	0	0	0	0	0	0	208	0	0	208	7	0	0	0	7	1	202	1	0	204
+30 mins.	1	0	1	0	2	0	147	1	0	148	5	0	2	0	7	1	213	0	0	214
+45 mins.	0	0	1	3	4	3	167	1	0	171	12	0	1	0	13	0	198	1	0	199
Total Volume	5	0	2	4	11	4	704	3	0	711	30	0	3	0	33	2	839	4	0	845
% App. Total	45.5	0	18.2	36.4		0.6	99	0.4	0		90.9	0	9.1	0		0.2	99.3	0.5	0	
PHF	.313	.000	.500	.333	.550	.333	.846	.750	.000	.855	.625	.000	.375	.000	.635	.500	.928	.500	.000	.927



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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

Start Time	Hotel Drive From North					E. Main St From East					Gas Station East Dr From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	0	0	0	2	2	0	149	2	0	151	0	0	0	1	1	0	142	0	0	142	296
11:15 AM	1	0	0	2	3	1	189	1	0	191	1	0	1	0	2	1	151	2	0	154	350
11:30 AM	2	0	0	5	7	3	180	0	0	183	7	0	2	1	10	0	128	1	0	129	329
11:45 AM	3	0	1	1	5	1	219	0	0	220	4	0	0	1	5	0	187	0	0	187	417
Total	6	0	1	10	17	5	737	3	0	745	12	0	3	3	18	1	608	3	0	612	1392
12:00 PM	0	0	1	3	4	1	243	0	0	244	6	0	4	0	10	0	180	1	0	181	439
12:15 PM	2	0	1	2	5	1	211	1	0	213	5	0	1	0	6	0	223	3	0	226	450
12:30 PM	1	0	2	0	3	1	199	0	0	200	8	0	0	0	8	1	190	0	0	191	402
12:45 PM	2	0	0	1	3	1	189	0	0	190	14	0	1	0	15	0	175	1	0	176	384
Total	5	0	4	6	15	4	842	1	0	847	33	0	6	0	39	1	768	5	0	774	1675
Grand Total	11	0	5	16	32	9	1579	4	0	1592	45	0	9	3	57	2	1376	8	0	1386	3067
Apprch %	34.4	0	15.6	50		0.6	99.2	0.3	0		78.9	0	15.8	5.3		0.1	99.3	0.6	0		
Total %	0.4	0	0.2	0.5	1	0.3	51.5	0.1	0	51.9	1.5	0	0.3	0.1	1.9	0.1	44.9	0.3	0	45.2	
Lights	10	0	5	0	15	9	1529									1329					
% Lights	90.9	0	100	0	46.9	100	96.8	100	0	96.9	100	0	100	0	94.7	100	96.6	100	0	96.6	96.2
Buses	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	2	0	0	2	15
% Buses	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	0	0.1	0	0	0.1	0.5
Trucks	1	0	0	0	1	0	37	0	0	37	0	0	0	0	0	0	45	0	0	45	83
% Trucks	9.1	0	0	0	3.1	0	2.3	0	0	2.3	0	0	0	0	0	0	3.3	0	0	3.2	2.7
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	16	16	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	19
% Pedestrians	0	0	0	100	50	0	0	0	0	0	0	0	0	100	5.3	0	0	0	0	0	0.6

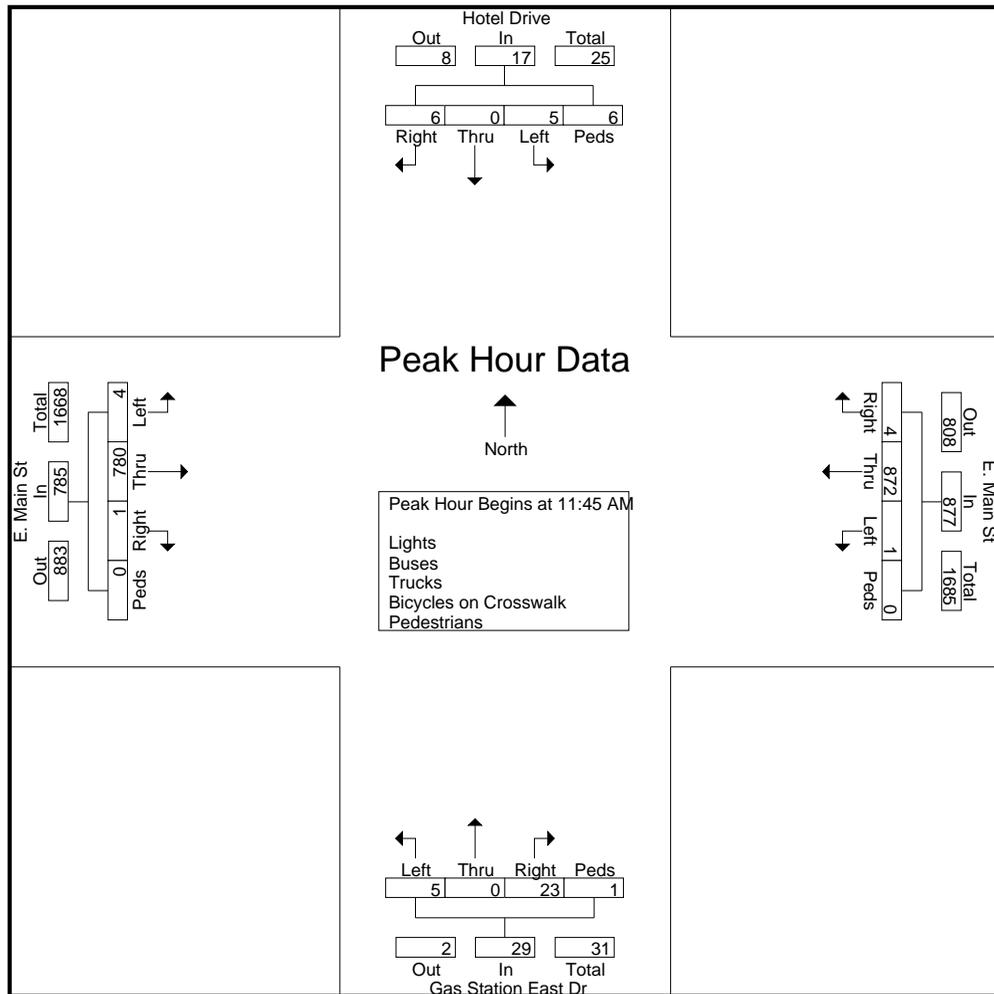
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Start Time	Hotel Drive From North					E. Main St From East					Gas Station East Dr From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	3	0	1	1	5	1	219	0	0	220	4	0	0	1	5	0	187	0	0	187	417
12:00 PM	0	0	1	3	4	1	243	0	0	244	6	0	4	0	10	0	180	1	0	181	439
12:15 PM	2	0	1	2	5	1	211	1	0	213	5	0	1	0	6	0	223	3	0	226	450
12:30 PM	1	0	2	0	3	1	199	0	0	200	8	0	0	0	8	1	190	0	0	191	402
Total Volume	6	0	5	6	17	4	872	1	0	877	23	0	5	1	29	1	780	4	0	785	1708
% App. Total	35.3	0	29.4	35.3		0.5	99.4	0.1	0		79.3	0	17.2	3.4		0.1	99.4	0.5	0		
PHF	.500	.000	.625	.500	.850	1.00	.897	.250	.000	.899	.719	.000	.313	.250	.725	.250	.874	.333	.000	.868	.949

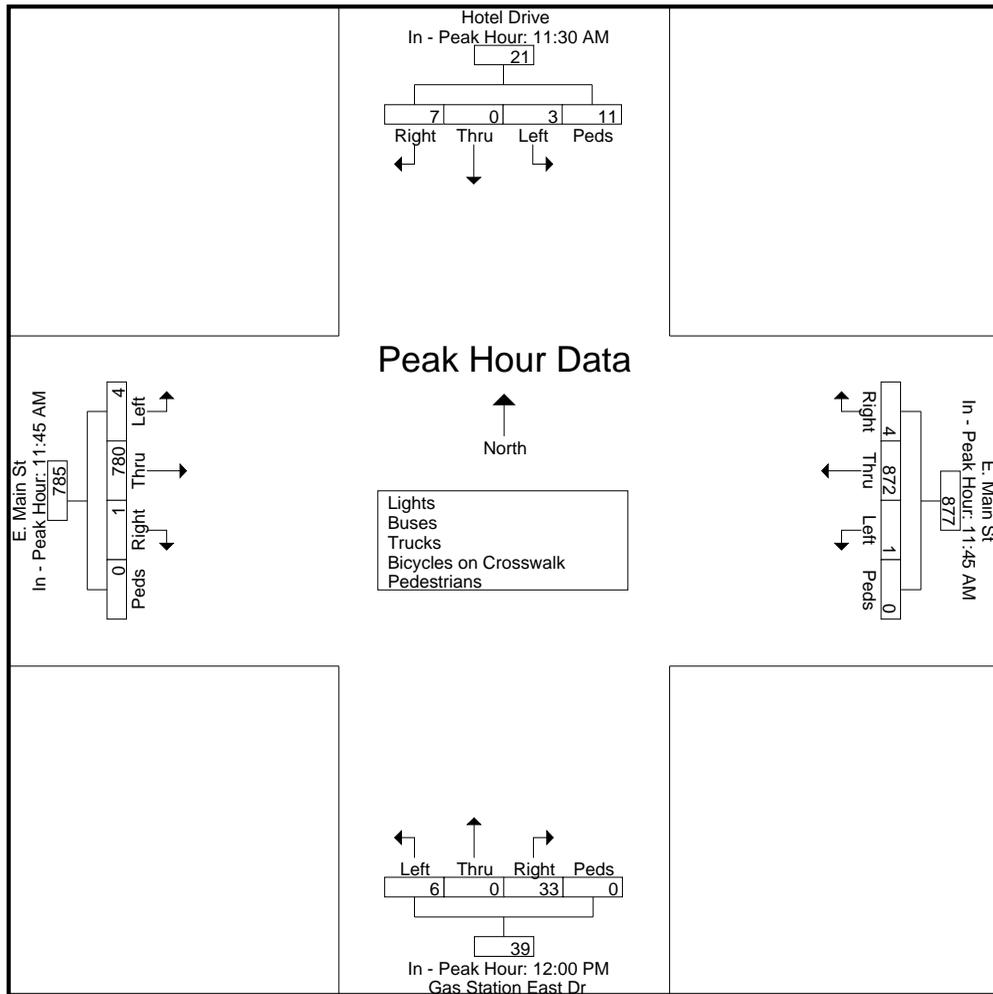


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17492
Site Code : 17492
Start Date : 6/7/2018
Page No : 3

Start Time	Hotel Drive From North					E. Main St From East					Gas Station East Dr From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	11:30 AM					11:45 AM					12:00 PM					11:45 AM					
+0 mins.	2	0	0	5	7	1	219	0	0	220	6	0	4	0	10	0	187	0	0	187	
+15 mins.	3	0	1	1	5	1	243	0	0	244	5	0	1	0	6	0	180	1	0	181	
+30 mins.	0	0	1	3	4	1	211	1	0	213	8	0	0	0	8	0	223	3	0	226	
+45 mins.	2	0	1	2	5	1	199	0	0	200	14	0	1	0	15	1	190	0	0	191	
Total Volume	7	0	3	11	21	4	872	1	0	877	33	0	6	0	39	1	780	4	0	785	
% App. Total	33.3	0	14.3	52.4		0.5	99.4	0.1	0		84.6	0	15.4	0		0.1	99.4	0.5	0		
PHF	.583	.000	.750	.550	.750	1.000	.897	.250	.000	.899	.589	.000	.375	.000	.650	.250	.874	.333	.000	.868	



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main Street at Hotel and E Station Dr
 Meriden, Connecticut

File Name : 17493
 Site Code : 17493
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

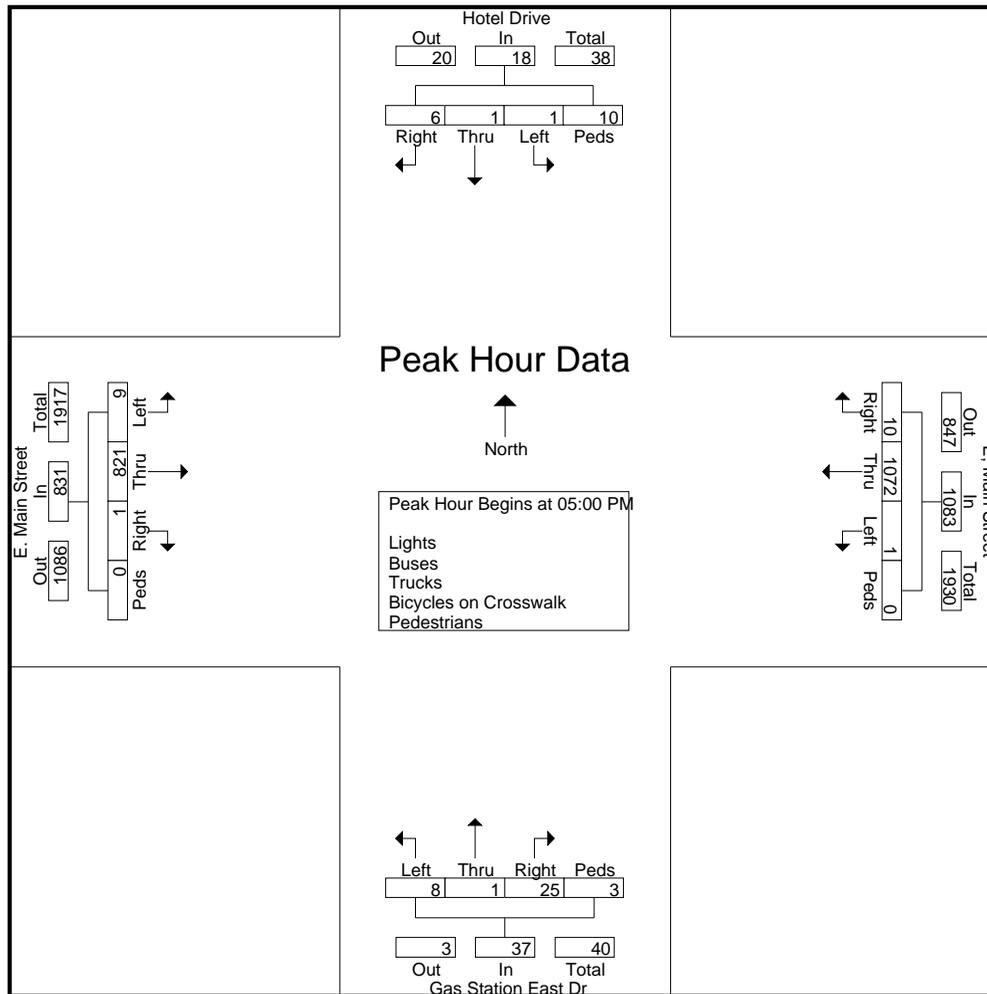
Start Time	Hotel Drive From North					E. Main Street From East					Gas Station East Dr From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	3	0	0	0	3	3	257	0	0	260	8	0	0	0	8	0	183	1	0	184	455
04:15 PM	3	0	1	0	4	2	258	0	0	260	10	0	0	0	10	0	195	2	0	197	471
04:30 PM	1	0	0	0	1	2	270	0	0	272	11	0	0	0	11	0	161	0	0	161	445
04:45 PM	1	0	0	0	1	1	252	0	0	253	9	0	2	0	11	0	179	1	0	180	445
Total	8	0	1	0	9	8	1037	0	0	1045	38	0	2	0	40	0	718	4	0	722	1816
05:00 PM	1	0	0	1	2	0	303	0	0	303	6	0	3	2	11	1	181	3	0	185	501
05:15 PM	3	0	0	3	6	1	273	1	0	275	8	1	2	0	11	0	219	2	0	221	513
05:30 PM	2	0	0	3	5	4	260	0	0	264	8	0	1	0	9	0	206	2	0	208	486
05:45 PM	0	1	1	3	5	5	236	0	0	241	3	0	2	1	6	0	215	2	0	217	469
Total	6	1	1	10	18	10	1072	1	0	1083	25	1	8	3	37	1	821	9	0	831	1969
Grand Total	14	1	2	10	27	18	2109	1	0	2128	63	1	10	3	77	1	1539	13	0	1553	3785
Apprch %	51.9	3.7	7.4	37		0.8	99.1	0	0		81.8	1.3	13	3.9		0.1	99.1	0.8	0		
Total %	0.4	0	0.1	0.3	0.7	0.5	55.7	0	0	56.2	1.7	0	0.3	0.1	2	0	40.7	0.3	0	41	
Lights	14	1	2	0	17	18	2089									1524					
% Lights	100	100	100	0	63	100	99.1	100	0	99.1	100	100	100	0	96.1	100	99	92.3	0	99	98.7
Buses	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
% Buses	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0.1	0	0	0.1	0.2
Trucks	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	14	1	0	15	30
% Trucks	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0	0.9	7.7	0	1	0.8
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	10	10	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	13
% Pedestrians	0	0	0	100	37	0	0	0	0	0	0	0	0	100	3.9	0	0	0	0	0	0.3

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17493
Site Code : 17493
Start Date : 6/7/2018
Page No : 2

Start Time	Hotel Drive From North					E, Main Street From East					Gas Station East Dr From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	0	0	1	2	0	303	0	0	303	6	0	3	2	11	1	181	3	0	185	501
05:15 PM	3	0	0	3	6	1	273	1	0	275	8	1	2	0	11	0	219	2	0	221	513
05:30 PM	2	0	0	3	5	4	260	0	0	264	8	0	1	0	9	0	206	2	0	208	486
05:45 PM	0	1	1	3	5	5	236	0	0	241	3	0	2	1	6	0	215	2	0	217	469
Total Volume	6	1	1	10	18	10	1072	1	0	1083	25	1	8	3	37	1	821	9	0	831	1969
% App. Total	33.3	5.6	5.6	55.6		0.9	99	0.1	0		67.6	2.7	21.6	8.1		0.1	98.8	1.1	0		
PHF	.500	.250	.250	.833	.750	.500	.884	.250	.000	.894	.781	.250	.667	.375	.841	.250	.937	.750	.000	.940	.960

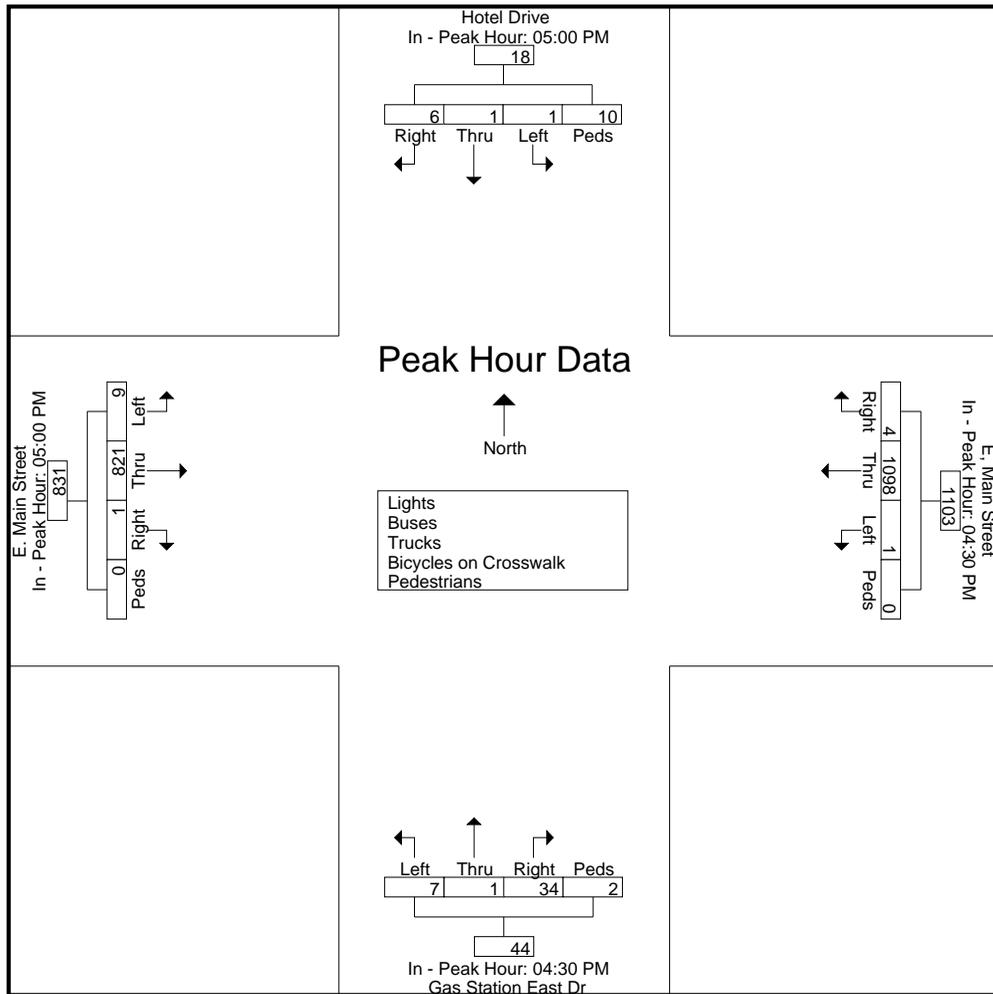


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17493
Site Code : 17493
Start Date : 6/7/2018
Page No : 3

Start Time	Hotel Drive From North					E. Main Street From East					Gas Station East Dr From South					E. Main Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:00 PM					04:30 PM					04:30 PM					05:00 PM					
+0 mins.	1	0	0	1	2	2	270	0	0	272	11	0	0	0	11	1	181	3	0	185	
+15 mins.	3	0	0	3	6	1	252	0	0	253	9	0	2	0	11	0	219	2	0	221	
+30 mins.	2	0	0	3	5	0	303	0	0	303	6	0	3	2	11	0	206	2	0	208	
+45 mins.	0	1	1	3	5	1	273	1	0	275	8	1	2	0	11	0	215	2	0	217	
Total Volume	6	1	1	10	18	4	1098	1	0	1103	34	1	7	2	44	1	821	9	0	831	
% App. Total	33.3	5.6	5.6	55.6		0.4	99.5	0.1	0		77.3	2.3	15.9	4.5		0.1	98.8	1.1	0		
PHF	.500	.250	.250	.833	.750	.500	.906	.250	.000	.910	.773	.250	.583	.250	1.000	.250	.937	.750	.000	.940	

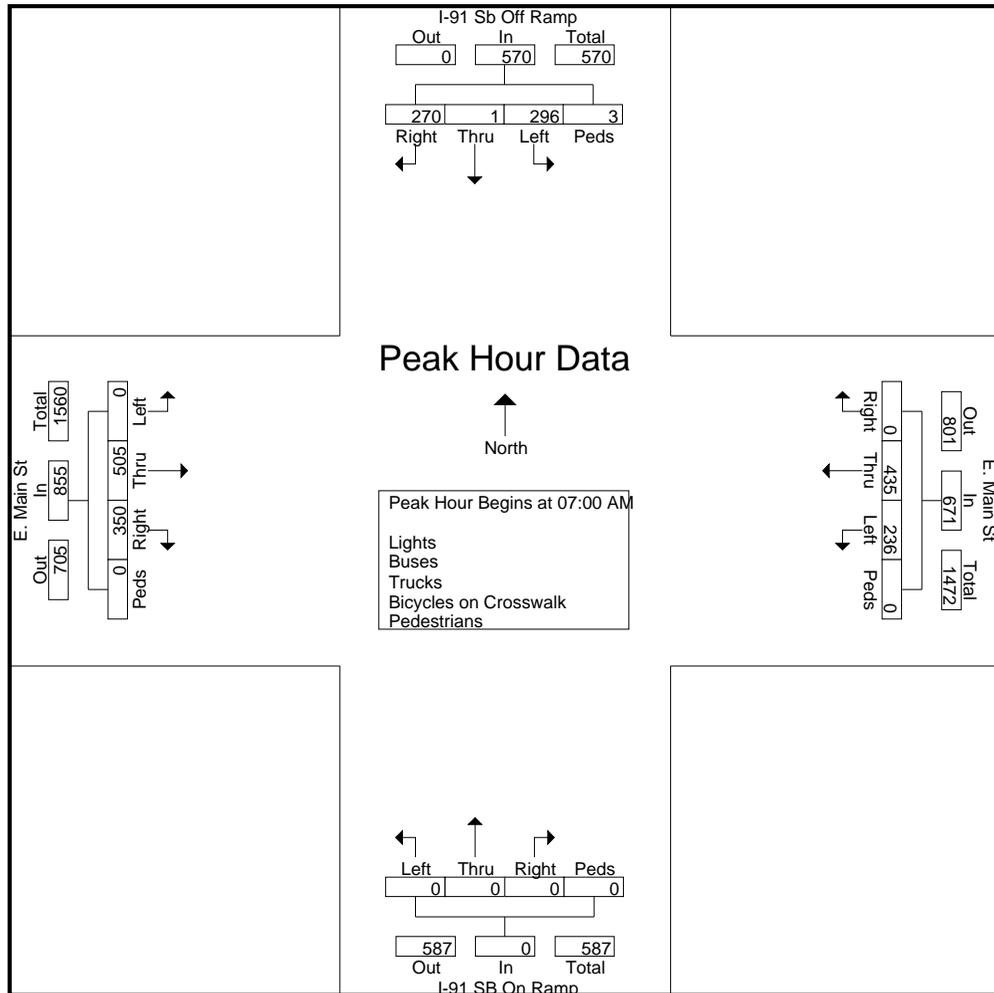


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17488
Site Code : 17488
Start Date : 6/7/2018
Page No : 2

Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	65	0	60	2	127	0	120	60	0	180	0	0	0	0	0	78	122	0	0	200	507
07:15 AM	82	0	76	0	158	0	125	72	0	197	0	0	0	0	0	87	144	0	0	231	586
07:30 AM	54	0	67	1	122	0	91	50	0	141	0	0	0	0	0	91	114	0	0	205	468
07:45 AM	69	1	93	0	163	0	99	54	0	153	0	0	0	0	0	94	125	0	0	219	535
Total Volume	270	1	296	3	570	0	435	236	0	671	0	0	0	0	0	350	505	0	0	855	2096
% App. Total	47.4	0.2	51.9	0.5		0	64.8	35.2	0		0	0	0	0		40.9	59.1	0	0		
PHF	.823	.250	.796	.375	.874	.000	.870	.819	.000	.852	.000	.000	.000	.000	.000	.931	.877	.000	.000	.925	.894



Connecticut Counts LLC

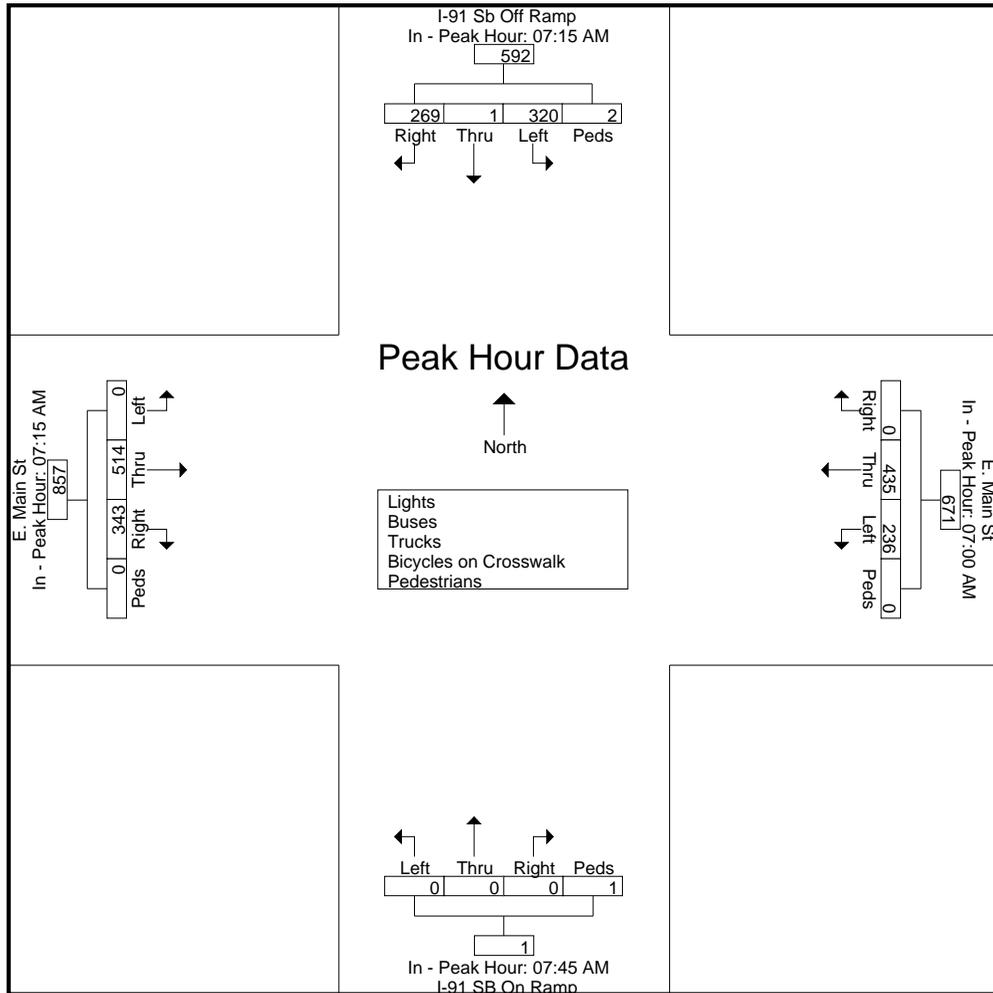
Kensington, Connecticut 06037
(860) 828-1693

File Name : 17488
Site Code : 17488
Start Date : 6/7/2018
Page No : 3

Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM					07:00 AM					07:45 AM					07:15 AM				
+0 mins.	82	0	76	0	158	0	120	60	0	180	0	0	0	0	0	87	144	0	0	231
+15 mins.	54	0	67	1	122	0	125	72	0	197	0	0	0	0	0	91	114	0	0	205
+30 mins.	69	1	93	0	163	0	91	50	0	141	0	0	0	0	0	94	125	0	0	219
+45 mins.	64	0	84	1	149	0	99	54	0	153	0	0	0	1	1	71	131	0	0	202
Total Volume	269	1	320	2	592	0	435	236	0	671	0	0	0	1	1	343	514	0	0	857
% App. Total	45.4	0.2	54.1	0.3		0	64.8	35.2	0		0	0	0	100		40	60	0	0	
PHF	.820	.250	.860	.500	.908	.000	.870	.819	.000	.852	.000	.000	.000	.250	.250	.912	.892	.000	.000	.927



Connecticut Counts LLC
Kensington, Connecticut 06037
(860) 828-1693

E. Main St at I-91 Ramps
 Meriden, Connecticut

File Name : 17489
 Site Code : 17489
 Start Date : 6/7/2018
 Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

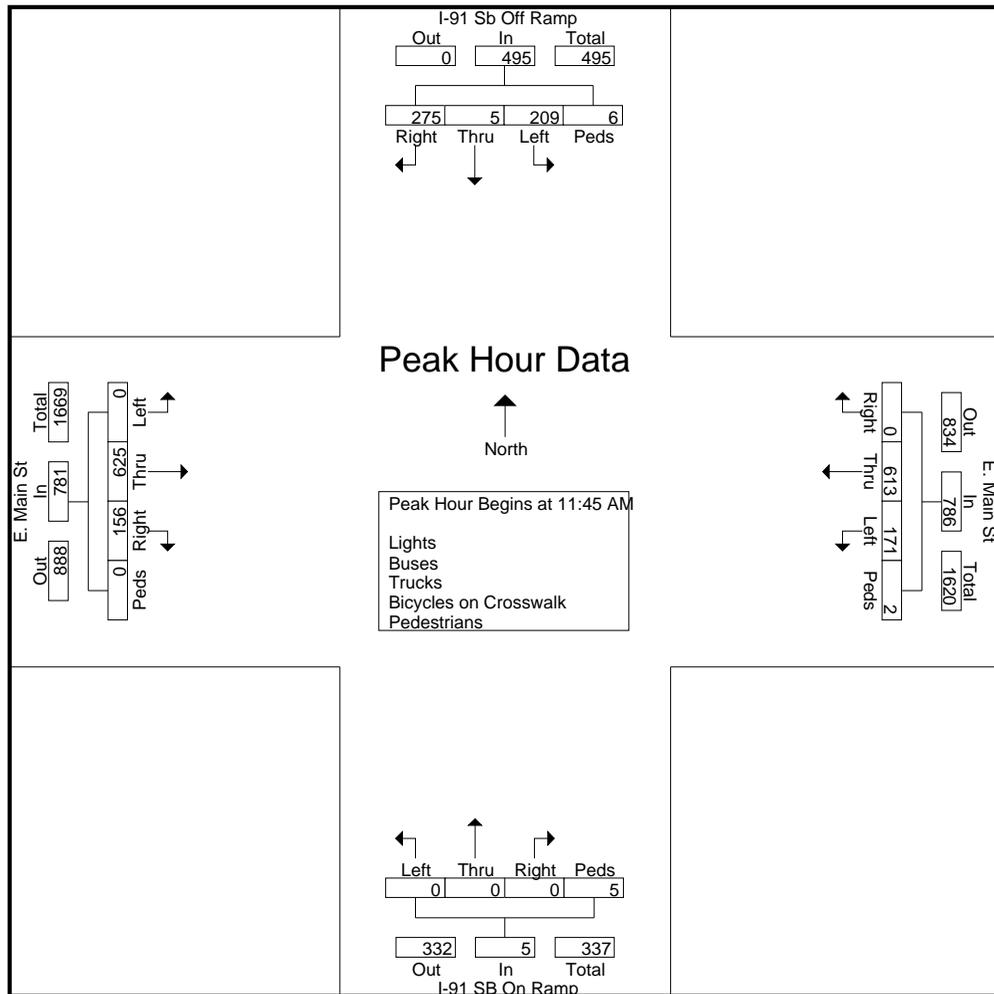
Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
11:00 AM	43	3	38	2	86	0	117	32	0	149	0	0	0	1	1	30	114	0	0	144	380
11:15 AM	66	1	51	3	121	0	117	35	0	152	0	0	0	0	0	46	118	0	0	164	437
11:30 AM	52	0	41	4	97	0	127	32	0	159	0	0	0	1	1	37	99	0	0	136	393
11:45 AM	72	1	51	1	125	0	149	46	0	195	0	0	0	1	1	43	147	0	0	190	511
Total	233	5	181	10	429	0	510	145	0	655	0	0	0	3	3	156	478	0	0	634	1721
12:00 PM	73	1	61	3	138	0	176	38	2	216	0	0	0	2	2	34	142	0	0	176	532
12:15 PM	64	2	40	2	108	0	155	45	0	200	0	0	0	2	2	33	188	0	0	221	531
12:30 PM	66	1	57	0	124	0	133	42	0	175	0	0	0	0	0	46	148	0	0	194	493
12:45 PM	61	0	51	1	113	0	132	44	0	176	0	0	0	0	0	50	128	0	0	178	467
Total	264	4	209	6	483	0	596	169	2	767	0	0	0	4	4	163	606	0	0	769	2023
Grand Total	497	9	390	16	912	0	1106	314	2	1422	0	0	0	7	7	319	1084	0	0	1403	3744
Apprch %	54.5	1	42.8	1.8		0	77.8	22.1	0.1		0	0	0	100		22.7	77.3	0	0		
Total %	13.3	0.2	10.4	0.4	24.4	0	29.5	8.4	0.1	38	0	0	0	0.2	0.2	8.5	29	0	0	37.5	
Lights	478	7	362	0	847	0	1071									1053					
% Lights	96.2	77.8	92.8	0	92.9	0	96.8	92.4	0	95.7	0	0	0	0	0	97.5	97.1	0	0	97.2	95.4
Buses	5	0	0	0	5	0	8	1	0	9	0	0	0	0	0	0	2	0	0	2	16
% Buses	1	0	0	0	0.5	0	0.7	0.3	0	0.6	0	0	0	0	0	0	0.2	0	0	0.1	0.4
Trucks	14	2	28	0	44	0	27	23	0	50	0	0	0	0	0	8	29	0	0	37	131
% Trucks	2.8	22.2	7.2	0	4.8	0	2.4	7.3	0	3.5	0	0	0	0	0	2.5	2.7	0	0	2.6	3.5
Bicycles on Crosswalk																					
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	16	16	0	0	0	2	2	0	0	0	7	7	0	0	0	0	0	25
% Pedestrians	0	0	0	100	1.8	0	0	0	100	0.1	0	0	0	100	100	0	0	0	0	0	0.7

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17489
Site Code : 17489
Start Date : 6/7/2018
Page No : 2

Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	72	1	51	1	125	0	149	46	0	195	0	0	0	1	1	43	147	0	0	190	511
12:00 PM	73	1	61	3	138	0	176	38	2	216	0	0	0	2	2	34	142	0	0	176	532
12:15 PM	64	2	40	2	108	0	155	45	0	200	0	0	0	2	2	33	188	0	0	221	531
12:30 PM	66	1	57	0	124	0	133	42	0	175	0	0	0	0	0	46	148	0	0	194	493
Total Volume	275	5	209	6	495	0	613	171	2	786	0	0	0	5	5	156	625	0	0	781	2067
% App. Total	55.6	1	42.2	1.2		0	78	21.8	0.3		0	0	0	100		20	80	0	0		
PHF	.942	.625	.857	.500	.897	.000	.871	.929	.250	.910	.000	.000	.000	.625	.625	.848	.831	.000	.000	.883	.971

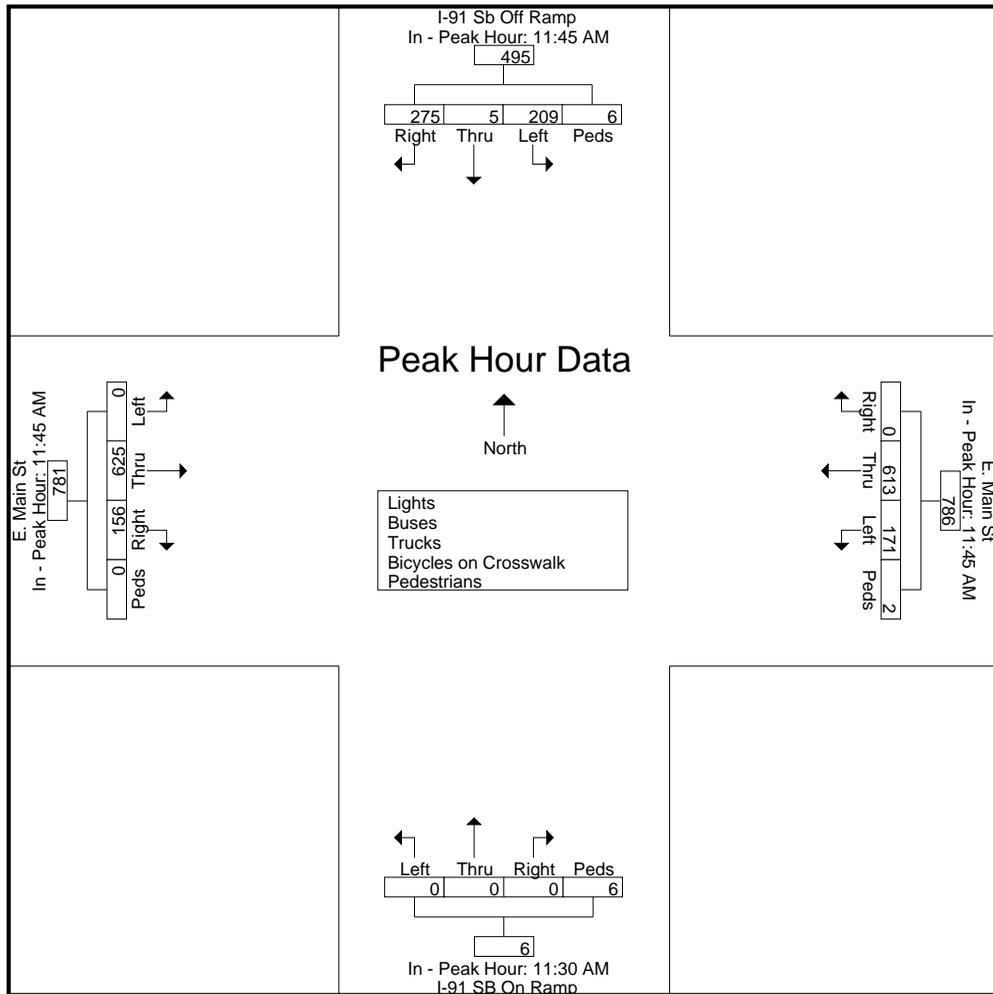


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17489
 Site Code : 17489
 Start Date : 6/7/2018
 Page No : 3

Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	11:45 AM					11:45 AM					11:30 AM					11:45 AM					
+0 mins.	72	1	51	1	125	0	149	46	0	195	0	0	0	1	1	43	147	0	0	190	
+15 mins.	73	1	61	3	138	0	176	38	2	216	0	0	0	1	1	34	142	0	0	176	
+30 mins.	64	2	40	2	108	0	155	45	0	200	0	0	0	2	2	33	188	0	0	221	
+45 mins.	66	1	57	0	124	0	133	42	0	175	0	0	0	2	2	46	148	0	0	194	
Total Volume	275	5	209	6	495	0	613	171	2	786	0	0	0	6	6	156	625	0	0	781	
% App. Total	55.6	1	42.2	1.2		0	78	21.8	0.3		0	0	0	100		20	80	0	0		
PHF	.942	.625	.857	.500	.897	.000	.871	.929	.250	.910	.000	.000	.000	.750	.750	.848	.831	.000	.000	.883	

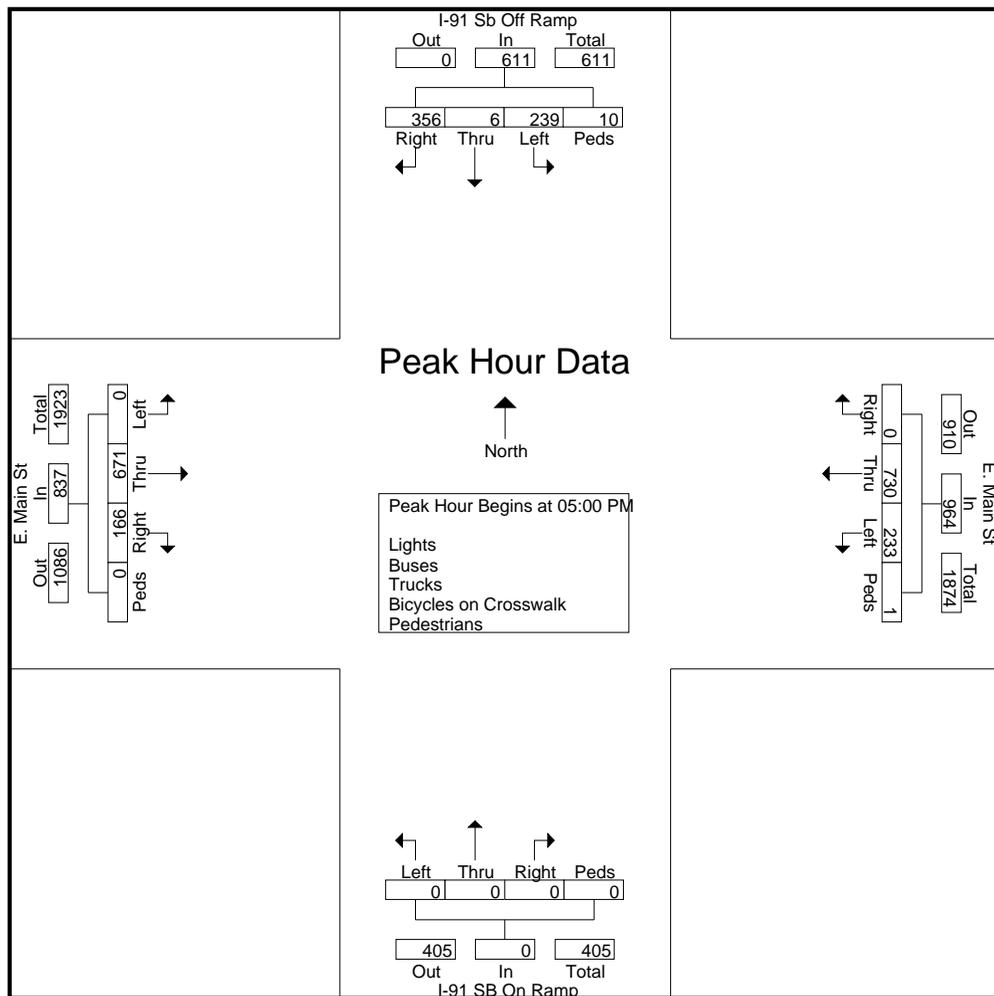


Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 17490
Site Code : 17490
Start Date : 6/7/2018
Page No : 2

Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	93	1	50	1	145	0	215	77	1	293	0	0	0	0	0	36	150	0	0	186	624
05:15 PM	103	1	56	3	163	0	172	69	0	241	0	0	0	0	0	43	194	0	0	237	641
05:30 PM	76	0	61	3	140	0	186	45	0	231	0	0	0	0	0	53	154	0	0	207	578
05:45 PM	84	4	72	3	163	0	157	42	0	199	0	0	0	0	0	34	173	0	0	207	569
Total Volume	356	6	239	10	611	0	730	233	1	964	0	0	0	0	0	166	671	0	0	837	2412
% App. Total	58.3	1	39.1	1.6		0	75.7	24.2	0.1		0	0	0	0		19.8	80.2	0	0		
PHF	.864	.375	.830	.833	.937	.000	.849	.756	.250	.823	.000	.000	.000	.000	.000	.783	.865	.000	.000	.883	.941



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

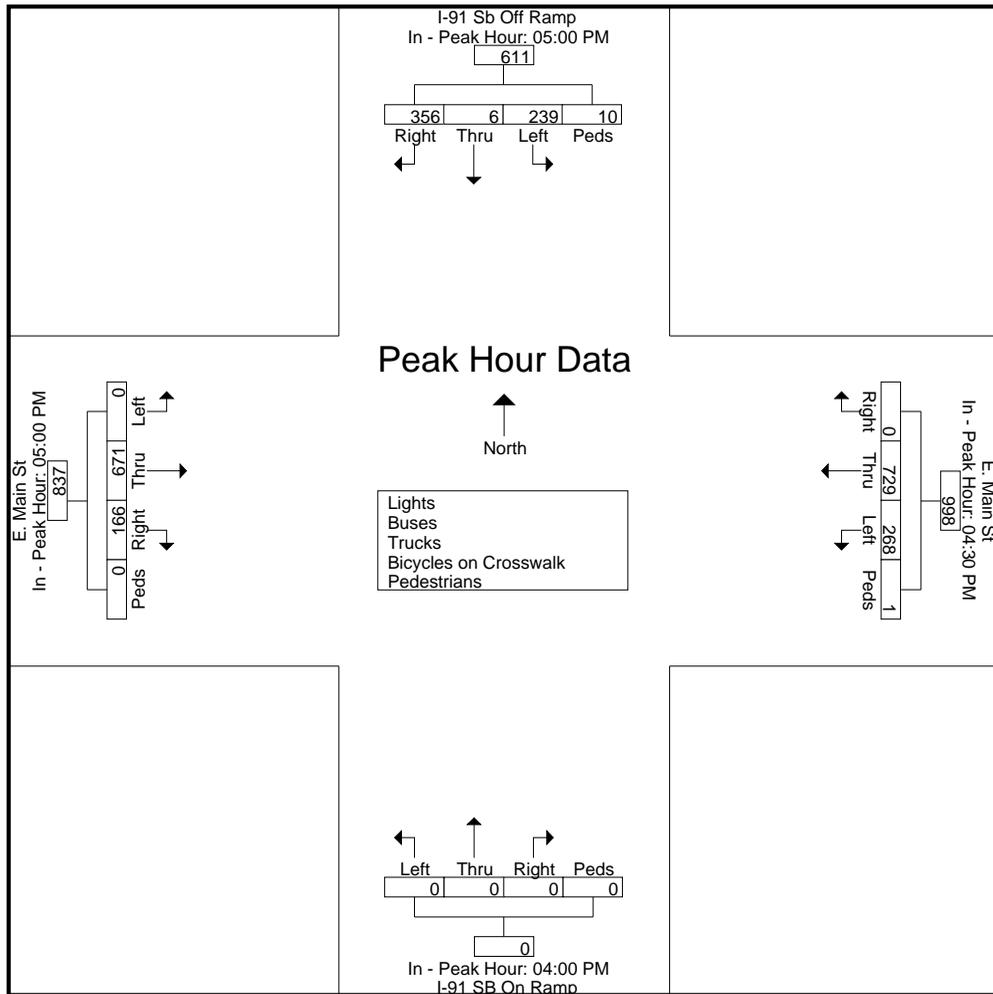
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 Site Code : 17490
 Start Date : 6/7/2018
 Page No : 3

Start Time	I-91 Sb Off Ramp From North					E. Main St From East					I-91 SB On Ramp From South					E. Main St From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM					04:30 PM					04:00 PM					05:00 PM				
+0 mins.	93	1	50	1	145	0	182	57	0	239	0	0	0	0	0	36	150	0	0	186
+15 mins.	103	1	56	3	163	0	160	65	0	225	0	0	0	0	0	43	194	0	0	237
+30 mins.	76	0	61	3	140	0	215	77	1	293	0	0	0	0	0	53	154	0	0	207
+45 mins.	84	4	72	3	163	0	172	69	0	241	0	0	0	0	0	34	173	0	0	207
Total Volume	356	6	239	10	611	0	729	268	1	998	0	0	0	0	0	166	671	0	0	837
% App. Total	58.3	1	39.1	1.6		0	73	26.9	0.1		0	0	0	0		19.8	80.2	0	0	
PHF	.864	.375	.830	.833	.937	.000	.848	.870	.250	.852	.000	.000	.000	.000	.000	.783	.865	.000	.000	.883



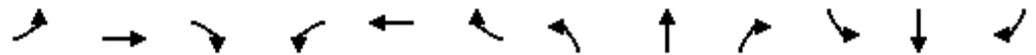
Lanes, Volumes, Timings
1: Paddock Ave/Gravel Street & East Main Street

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	570	50	97	413	97	75	120	158	186	92	79
Future Volume (vph)	113	570	50	97	413	97	75	120	158	186	92	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	12	12	10	12	12
Storage Length (ft)	100		0	175		0	75		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.988			0.971			0.915				0.931
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3380	0	1711	3322	0	1652	1704	0	1652	1734	0
Fl _t Permitted	0.233			0.235			0.950			0.950		
Satd. Flow (perm)	420	3380	0	423	3322	0	1652	1704	0	1652	1734	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			32			67				44
Link Speed (mph)		30			30			30				30
Link Distance (ft)		991			241			626				602
Travel Time (s)		22.5			5.5			14.2				13.7
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	131	663	58	113	480	113	87	140	184	216	107	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	131	721	0	113	593	0	87	324	0	216	199	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		7	8		7	8	
Permitted Phases	6			2								
Detector Phase	1	6		5	2		7	8		7	8	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0		4.0	9.0		4.0	9.0	
Minimum Split (s)	8.0	21.0		8.0	21.0		7.1	15.0		7.1	15.0	
Total Split (s)	8.0	23.0		8.0	23.0		9.0	15.0		9.0	15.0	
Total Split (%)	10.0%	28.8%		10.0%	28.8%		11.3%	18.8%		11.3%	18.8%	
Maximum Green (s)	4.9	17.0		4.9	17.0		5.9	9.0		5.9	9.0	
Yellow Time (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.1	2.0		0.1	2.0		0.1	2.0		0.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag			Lag		
Lead-Lag Optimize?				Yes								
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	25.4	18.6		24.8	17.0		22.8	17.1		22.8	17.1	
Actuated g/C Ratio	0.32	0.23		0.31	0.21		0.28	0.21		0.28	0.21	
v/c Ratio	0.62	0.91		0.54	0.81		0.19	0.78		0.46	0.49	
Control Delay	33.9	48.3		26.0	34.5		24.9	36.2		28.9	24.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
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	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	25.0
Total Split (s)	25.0
Total Split (%)	31%
Maximum Green (s)	23.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
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	

Lanes, Volumes, Timings
 1: Paddock Ave/Gravel Street & East Main Street

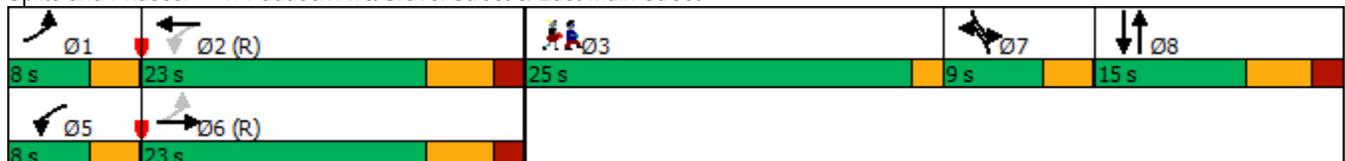


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	33.9	48.3		26.0	34.5		24.9	36.2		28.9	24.7	
LOS	C	D		C	C		C	D		C	C	
Approach Delay		46.1			33.2			33.8			26.9	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	45	187		30	125		34	117		93	65	
Queue Length 95th (ft)	#88	#284		58	#145		68	191		153	116	
Internal Link Dist (ft)		911			161			546			522	
Turn Bay Length (ft)	100			175			75			200		
Base Capacity (vph)	212	793		210	731		470	417		470	405	
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	0.62	0.91		0.54	0.81		0.19	0.78		0.46	0.49	

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 36.8
 Intersection LOS: D
 Intersection Capacity Utilization 65.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Paddock Ave/Gravel Street & East Main Street



Lane Group	Ø3
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	
Reduced v/c Ratio	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
1: Paddock Ave/Gravel Street & East Main Street

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	113	570	50	97	413	97	75	120	158	186	92	79
Future Volume (vph)	113	570	50	97	413	97	75	120	158	186	92	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	10	12	12	10	12	12
Total Lost time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.91		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1711	3380		1711	3323		1652	1704		1652	1734	
Flt Permitted	0.23	1.00		0.24	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	419	3380		424	3323		1652	1704		1652	1734	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	131	663	58	113	480	113	87	140	184	216	107	92
RTOR Reduction (vph)	0	8	0	0	25	0	0	53	0	0	35	0
Lane Group Flow (vph)	131	713	0	113	568	0	87	271	0	216	164	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		7	8		7	8	
Permitted Phases	6			2								
Actuated Green, G (s)	22.9	18.0		20.9	17.0		22.8	17.1		22.8	17.1	
Effective Green, g (s)	22.9	18.0		20.9	17.0		22.8	17.1		22.8	17.1	
Actuated g/C Ratio	0.29	0.22		0.26	0.21		0.29	0.21		0.29	0.21	
Clearance Time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	199	760		173	706		470	364		470	370	
v/s Ratio Prot	c0.04	c0.21		0.03	0.17		0.05	c0.16		c0.13	0.09	
v/s Ratio Perm	0.15			0.14								
v/c Ratio	0.66	0.94		0.65	0.80		0.19	0.75		0.46	0.44	
Uniform Delay, d1	22.6	30.5		24.6	29.9		21.6	29.4		23.5	27.3	
Progression Factor	1.00	1.00		0.85	0.86		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.9	20.7		6.4	9.3		0.1	7.1		0.3	0.3	
Delay (s)	28.5	51.1		27.4	34.9		21.7	36.5		23.8	27.6	
Level of Service	C	D		C	C		C	D		C	C	
Approach Delay (s)		47.6			33.7			33.4			25.6	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	20.2
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
2: Retail Drive/Margerie Street

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	906	4	14	598	14	1	1	14	2	0	8
Future Volume (vph)	4	906	4	14	598	14	1	1	14	2	0	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	14	12	12	12	12
Storage Length (ft)	0		0	10		10	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.997			0.880			0.890	
Flt Protected					0.999			0.997			0.991	
Satd. Flow (prot)	0	3418	0	0	3408	0	0	1743	0	0	1643	0
Flt Permitted					0.999			0.997			0.991	
Satd. Flow (perm)	0	3418	0	0	3408	0	0	1743	0	0	1643	0
Link Speed (mph)		30			30			15			20	
Link Distance (ft)		241			257			194			265	
Travel Time (s)		5.5			5.8			8.8			9.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	1007	4	16	664	16	1	1	16	2	0	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1015	0	0	696	0	0	18	0	0	11	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.0%
Analysis Period (min)	15
	ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis
2: Retail Drive/Margerie Street

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (veh/h)	4	906	4	14	598	14	1	1	14	2	0	8
Future Volume (Veh/h)	4	906	4	14	598	14	1	1	14	2	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	4	1007	4	16	664	16	1	1	16	2	0	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		241			868							
pX, platoon unblocked				0.80			0.80	0.80	0.80	0.80	0.80	
vC, conflicting volume	680			1011			1390	1729	506	1232	1723	340
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	680			525			997	1418	0	800	1411	340
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			99	99	98	99	100	99
cM capacity (veh/h)	908			834			155	106	871	212	108	656
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	508	508	348	348	18	11						
Volume Left	4	0	16	0	1	2						
Volume Right	0	4	0	16	16	9						
cSH	908	1700	834	1700	526	475						
Volume to Capacity	0.00	0.30	0.02	0.20	0.03	0.02						
Queue Length 95th (ft)	0	0	1	0	3	2						
Control Delay (s)	0.1	0.0	0.6	0.0	12.1	12.8						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.1		0.3		12.1	12.8						
Approach LOS					B	B						
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			38.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
3: Retail Drive/Parkway Place

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	823	95	105	587	9	30	0	5	6	1	9
Future Volume (vph)	4	823	95	105	587	9	30	0	5	6	1	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	10	10	12	12	12
Storage Length (ft)	0		0	250		0	0		50	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.998				0.850		0.924	
Flt Protected					0.993			0.950			0.982	
Satd. Flow (prot)	0	3370	0	0	3390	0	0	1652	1478	0	1690	0
Flt Permitted					0.993			0.950			0.982	
Satd. Flow (perm)	0	3370	0	0	3390	0	0	1652	1478	0	1690	0
Link Speed (mph)		30			30			15			20	
Link Distance (ft)		257			375			171			405	
Travel Time (s)		5.8			8.5			7.8			13.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	866	100	111	618	9	32	0	5	6	1	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	970	0	0	738	0	0	32	5	0	16	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	61.9%
Analysis Period (min)	15
	ICU Level of Service B

HCM Unsignalized Intersection Capacity Analysis

3: Retail Drive/Parkway Place

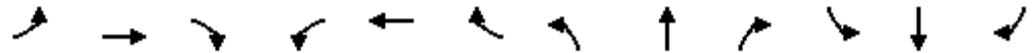
East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↕	↗		↕	
Traffic Volume (veh/h)	4	823	95	105	587	9	30	0	5	6	1	9
Future Volume (Veh/h)	4	823	95	105	587	9	30	0	5	6	1	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	4	866	100	111	618	9	32	0	5	6	1	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.97			0.83			0.84	0.84	0.83	0.84	0.84	0.97
vC, conflicting volume	627			966			1464	1773	483	1286	1818	314
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	549			538			1006	1372	0	793	1426	225
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			87			78	100	99	97	99	99
cM capacity (veh/h)	985			848			145	105	896	210	98	754
Direction, Lane #												
Volume Total	437	533	420	318	37	16						
Volume Left	4	0	111	0	32	6						
Volume Right	0	100	0	9	5	9						
cSH	985	1700	848	1700	167	315						
Volume to Capacity	0.00	0.31	0.13	0.19	0.22	0.05						
Queue Length 95th (ft)	0	0	11	0	20	4						
Control Delay (s)	0.1	0.0	3.8	0.0	33.0	17.0						
Lane LOS	A		A		D	C						
Approach Delay (s)	0.1		2.1		33.0	17.0						
Approach LOS					D	C						
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			61.9%		ICU Level of Service				B			
Analysis Period (min)			15									

Lanes, Volumes, Timings
4: Gas Station Drive/Hotel Drive

East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (vph)	4	828	2	3	704	4	2	0	27	4	0	3
Future Volume (vph)	4	828	2	3	704	4	2	0	27	4	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	15	12	12	16	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.999			0.873			0.942	
Flt Protected								0.997			0.972	
Satd. Flow (prot)	0	3539	0	0	3418	0	0	1783	0	0	1933	0
Flt Permitted								0.997			0.972	
Satd. Flow (perm)	0	3539	0	0	3418	0	0	1783	0	0	1933	0
Link Speed (mph)		30			30			15			15	
Link Distance (ft)		375			236			185			200	
Travel Time (s)		8.5			5.4			8.4			9.1	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	4	930	2	3	791	4	2	0	30	4	0	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	936	0	0	798	0	0	32	0	0	7	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.7%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
4: Gas Station Drive/Hotel Drive

East Main Street Corridor Study
2018 Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	828	2	3	704	4	2	0	27	4	0	3
Future Volume (Veh/h)	4	828	2	3	704	4	2	0	27	4	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	930	2	3	791	4	2	0	30	4	0	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		873			236							
pX, platoon unblocked	0.93			0.89			0.92	0.92	0.89	0.92	0.92	0.93
vC, conflicting volume	795			932			1344	1740	466	1302	1739	398
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	637			674			878	1308	150	833	1307	211
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	96	98	100	100
cM capacity (veh/h)	879			812			221	145	773	230	145	741
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	469	467	398	400	32	7						
Volume Left	4	0	3	0	2	4						
Volume Right	0	2	0	4	30	3						
cSH	879	1700	812	1700	669	326						
Volume to Capacity	0.00	0.27	0.00	0.23	0.05	0.02						
Queue Length 95th (ft)	0	0	0	0	4	2						
Control Delay (s)	0.1	0.0	0.1	0.0	10.7	16.3						
Lane LOS	A		A		B	C						
Approach Delay (s)	0.1		0.1		10.7	16.3						
Approach LOS					B	C						
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			35.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
5: I-91/15 On Ramp/I-91/15 Off Ramp

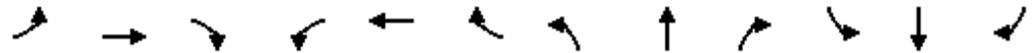
East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↖	↑	
Traffic Volume (vph)	0	509	350	236	441	0	0	0	0	296	1	270
Future Volume (vph)	0	509	350	236	441	0	0	0	0	296	1	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	10	11	11	12	12	12	15	14	12
Storage Length (ft)	0		0	130		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.939									0.850	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3510	0	1636	3388	0	0	0	0	1928	1672	0
Flt Permitted				0.174						0.950		
Satd. Flow (perm)	0	3510	0	300	3388	0	0	0	0	1928	1672	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		212										303
Link Speed (mph)		30			30			45				45
Link Distance (ft)		236			663			543				510
Travel Time (s)		5.4			15.1			8.2				7.7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	3	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	0	572	393	265	496	0	0	0	0	333	1	303
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	965	0	265	496	0	0	0	0	333	304	0
Turn Type		NA		D.P+P	NA					Split	NA	
Protected Phases		2		1	1 2					4	4	
Permitted Phases				2								
Detector Phase		2		1	1 2					4	4	
Switch Phase												
Minimum Initial (s)		15.0		15.0						10.0	10.0	
Minimum Split (s)		21.0		29.0						15.0	15.0	
Total Split (s)		28.0		11.0						18.0	18.0	
Total Split (%)		35.0%		13.8%						22.5%	22.5%	
Maximum Green (s)		22.0		7.0						13.0	13.0	
Yellow Time (s)		4.0		3.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lost Time Adjust (s)		0.0		0.0						0.0	0.0	
Total Lost Time (s)		6.0		4.0						5.0	5.0	
Lead/Lag		Lag		Lead						Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0		6.0						2.0	2.0	
Recall Mode		C-Max		Min						None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		23.0		43.7	47.7					23.3	23.3	
Actuated g/C Ratio		0.29		0.55	0.60					0.29	0.29	
v/c Ratio		0.83		0.56	0.25					0.59	0.43	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
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	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.1
Total Split (s)	23.0
Total Split (%)	29%
Maximum Green (s)	20.9
Yellow Time (s)	2.0
All-Red Time (s)	0.1
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)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings
5: I-91/15 On Ramp/I-91/15 Off Ramp

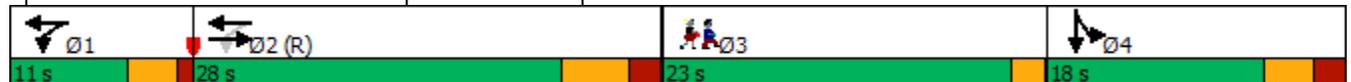


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		39.2		17.0	8.3					29.0	4.8	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		39.2		17.0	8.3					29.0	4.8	
LOS		D		B	A					C	A	
Approach Delay		39.2			11.3							17.4
Approach LOS		D			B							B
Queue Length 50th (ft)		223		58	54					143	0	
Queue Length 95th (ft)		m257		142	87					209	50	
Internal Link Dist (ft)		156			583			463				430
Turn Bay Length (ft)				130								
Base Capacity (vph)		1160		476	2021					560	701	
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		0.83		0.56	0.25					0.59	0.43	

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 24.4
 Intersection LOS: C
 Intersection Capacity Utilization 67.6%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: I-91/15 On Ramp/I-91/15 Off Ramp



Lane Group	Ø3
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	
Reduced v/c Ratio	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
5: I-91/15 On Ramp/I-91/15 Off Ramp

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑	↑	
Traffic Volume (vph)	0	509	350	236	441	0	0	0	0	296	1	270
Future Volume (vph)	0	509	350	236	441	0	0	0	0	296	1	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	10	11	11	12	12	12	15	14	12
Total Lost time (s)		6.0		4.0	4.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.94		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3510		1636	3388					1928	1673	
Flt Permitted		1.00		0.17	1.00					0.95	1.00	
Satd. Flow (perm)		3510		299	3388					1928	1673	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	572	393	265	496	0	0	0	0	333	1	303
RTOR Reduction (vph)	0	151	0	0	0	0	0	0	0	0	215	0
Lane Group Flow (vph)	0	814	0	265	496	0	0	0	0	333	89	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	3	0	0	0	0	0	0	0	0	0	0	0
Turn Type		NA		D.P+P	NA					Split	NA	
Protected Phases		2		1	1 2					4	4	
Permitted Phases				2								
Actuated Green, G (s)		23.0		41.7	45.7					23.3	23.3	
Effective Green, g (s)		23.0		41.7	45.7					23.3	23.3	
Actuated g/C Ratio		0.29		0.52	0.57					0.29	0.29	
Clearance Time (s)		6.0		4.0						5.0	5.0	
Vehicle Extension (s)		6.0		6.0						2.0	2.0	
Lane Grp Cap (vph)		1009		468	1935					561	487	
v/s Ratio Prot		c0.23		c0.13	0.15					c0.17	0.05	
v/s Ratio Perm				0.16								
v/c Ratio		0.81		0.57	0.26					0.59	0.18	
Uniform Delay, d1		26.4		13.2	8.6					24.3	21.2	
Progression Factor		1.62		1.00	1.00					1.00	1.00	
Incremental Delay, d2		5.0		3.2	0.2					1.1	0.1	
Delay (s)		47.8		16.4	8.8					25.4	21.3	
Level of Service		D		B	A					C	C	
Approach Delay (s)		47.8			11.5			0.0			23.5	
Approach LOS		D			B			A			C	

Intersection Summary

HCM 2000 Control Delay	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
1: Paddock Ave/Gravel Street & East Main Street

East Main Street Corridor Study
2018 Existing Conditions

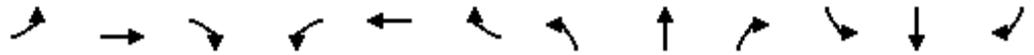


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	649	67	130	567	94	67	95	66	154	63	59
Future Volume (vph)	63	649	67	130	567	94	67	95	66	154	63	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	12	12	10	12	12
Storage Length (ft)	100		0	175		0	75		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.986			0.979			0.939				0.927
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3373	0	1711	3349	0	1652	1749	0	1652	1727	0
Fl _t Permitted	0.295			0.216			0.950			0.950		
Satd. Flow (perm)	531	3373	0	389	3349	0	1652	1749	0	1652	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			24			38				52
Link Speed (mph)		30			30			30				30
Link Distance (ft)		991			241			626				602
Travel Time (s)		22.5			5.5			14.2				13.7
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	65	669	69	134	585	97	69	98	68	159	65	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	738	0	134	682	0	69	166	0	159	126	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		7	8		7	8	
Permitted Phases	6			2								
Detector Phase	1	6		5	2		7	8		7	8	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0		4.0	9.0		4.0	9.0	
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	15.0		8.0	15.0	
Total Split (s)	6.0	21.0		6.0	21.0		7.0	11.0		7.0	11.0	
Total Split (%)	8.6%	30.0%		8.6%	30.0%		10.0%	15.7%		10.0%	15.7%	
Maximum Green (s)	2.9	15.0		2.9	15.0		3.9	5.0		3.9	5.0	
Yellow Time (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.1	2.0		0.1	2.0		0.1	2.0		0.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag			Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	24.2	15.4		27.6	19.7		17.0	12.2		17.0	12.2	
Actuated g/C Ratio	0.35	0.22		0.39	0.28		0.24	0.17		0.24	0.17	
v/c Ratio	0.23	0.98		0.47	0.71		0.17	0.49		0.40	0.37	
Control Delay	14.6	57.5		18.8	25.7		23.7	25.1		26.8	18.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
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	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	27.5
Total Split (s)	25.0
Total Split (%)	36%
Maximum Green (s)	23.0
Yellow Time (s)	2.0
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)	16.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lanes, Volumes, Timings
 1: Paddock Ave/Gravel Street & East Main Street

East Main Street Corridor Study
 2018 Existing Conditions

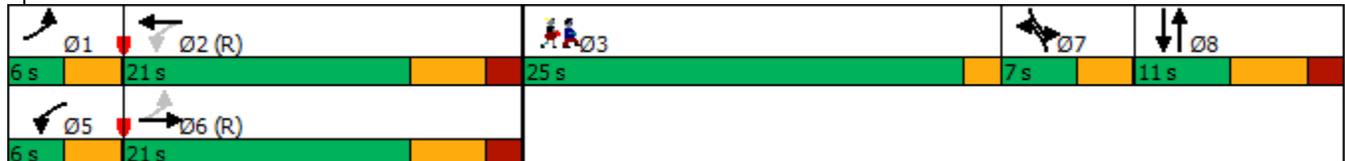


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	14.6	57.5		18.8	25.7		23.7	25.1		26.8	18.9	
LOS	B	E		B	C		C	C		C	B	
Approach Delay		54.1			24.6			24.7				23.3
Approach LOS		D			C			C				C
Queue Length 50th (ft)	16	162		28	126		24	50		60	28	
Queue Length 95th (ft)	39	#282		68	#246		56	101		112	70	
Internal Link Dist (ft)		911			161			546			522	
Turn Bay Length (ft)	100			175			75			200		
Base Capacity (vph)	281	753		288	960		401	336		401	344	
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	0.23	0.98		0.47	0.71		0.17	0.49		0.40	0.37	

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 35.5
 Intersection LOS: D
 Intersection Capacity Utilization 61.5%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Paddock Ave/Gravel Street & East Main Street



Lane Group	Ø3
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	
Reduced v/c Ratio	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
1: Paddock Ave/Gravel Street & East Main Street

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	649	67	130	567	94	67	95	66	154	63	59
Future Volume (vph)	63	649	67	130	567	94	67	95	66	154	63	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	10	12	12	10	12	12
Total Lost time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.94		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1711	3373		1711	3348		1652	1748		1652	1727	
Flt Permitted	0.30	1.00		0.22	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	532	3373		389	3348		1652	1748		1652	1727	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	65	669	69	134	585	97	69	98	68	159	65	61
RTOR Reduction (vph)	0	11	0	0	18	0	0	31	0	0	43	0
Lane Group Flow (vph)	65	727	0	134	664	0	69	135	0	159	83	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		7	8		7	8	
Permitted Phases	6			2								
Actuated Green, G (s)	19.6	15.5		25.6	18.5		17.0	12.2		17.0	12.2	
Effective Green, g (s)	19.6	15.5		25.6	18.5		17.0	12.2		17.0	12.2	
Actuated g/C Ratio	0.28	0.22		0.37	0.26		0.24	0.17		0.24	0.17	
Clearance Time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	218	746		276	884		401	304		401	300	
v/s Ratio Prot	0.02	c0.22		c0.05	0.20		0.04	c0.08		c0.10	0.05	
v/s Ratio Perm	0.07			0.13								
v/c Ratio	0.30	0.97		0.49	0.75		0.17	0.44		0.40	0.28	
Uniform Delay, d1	19.0	27.1		16.4	23.6		20.9	25.9		22.2	25.1	
Progression Factor	1.00	1.00		1.02	0.86		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	27.3		0.5	5.7		0.1	0.4		0.2	0.2	
Delay (s)	19.3	54.4		17.3	26.0		21.0	26.2		22.4	25.3	
Level of Service	B	D		B	C		C	C		C	C	
Approach Delay (s)		51.5			24.6			24.7			23.7	
Approach LOS		D			C			C			C	

Intersection Summary		
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio	0.62	
Actuated Cycle Length (s)	70.0	Sum of lost time (s) 20.2
Intersection Capacity Utilization	61.5%	ICU Level of Service B
Analysis Period (min)	15	
c Critical Lane Group		

Lanes, Volumes, Timings
2: Retail Drive/Margerie Street

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	804	59	87	769	34	15	0	45	6	1	7
Future Volume (vph)	6	804	59	87	769	34	15	0	45	6	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	14	12	12	12	12
Storage Length (ft)	0		0	10		10	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.994			0.899			0.932	
Flt Protected					0.995			0.987			0.979	
Satd. Flow (prot)	0	3387	0	0	3384	0	0	1763	0	0	1700	0
Flt Permitted					0.995			0.987			0.979	
Satd. Flow (perm)	0	3387	0	0	3384	0	0	1763	0	0	1700	0
Link Speed (mph)		30			30			15			20	
Link Distance (ft)		241			257			194			265	
Travel Time (s)		5.5			5.8			8.8			9.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	6	838	61	91	801	35	16	0	47	6	1	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	905	0	0	927	0	0	63	0	0	14	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.1%
Analysis Period (min)	15
	ICU Level of Service B

HCM Unsignalized Intersection Capacity Analysis
2: Retail Drive/Margerie Street

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (veh/h)	6	804	59	87	769	34	15	0	45	6	1	7
Future Volume (Veh/h)	6	804	59	87	769	34	15	0	45	6	1	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	6	838	61	91	801	35	16	0	47	6	1	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		241			868							
pX, platoon unblocked				0.80			0.80	0.80	0.80	0.80	0.80	
vC, conflicting volume	836			899			1470	1898	450	1478	1912	418
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	836			368			1084	1620	0	1094	1636	418
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			90			87	100	95	95	99	99
cM capacity (veh/h)	794			948			123	73	866	117	71	584
Direction, Lane #												
	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	425	480	492	436	63	14						
Volume Left	6	0	91	0	16	6						
Volume Right	0	61	0	35	47	7						
cSH	794	1700	948	1700	342	181						
Volume to Capacity	0.01	0.28	0.10	0.26	0.18	0.08						
Queue Length 95th (ft)	1	0	8	0	17	6						
Control Delay (s)	0.2	0.0	2.6	0.0	17.9	26.5						
Lane LOS	A		A		C	D						
Approach Delay (s)	0.1		1.4		17.9	26.5						
Approach LOS					C	D						
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			63.1%		ICU Level of Service				B			
Analysis Period (min)			15									

Lanes, Volumes, Timings
3: Retail Drive/Parkway Place

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	768	75	51	854	11	20	0	8	9	0	16
Future Volume (vph)	12	768	75	51	854	11	20	0	8	9	0	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	10	10	12	12	12
Storage Length (ft)	0		0	250		0	0		50	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.998				0.850		0.913	
Flt Protected		0.999			0.997			0.950			0.982	
Satd. Flow (prot)	0	3373	0	0	3404	0	0	1652	1478	0	1670	0
Flt Permitted		0.999			0.997			0.950			0.982	
Satd. Flow (perm)	0	3373	0	0	3404	0	0	1652	1478	0	1670	0
Link Speed (mph)		30			30			15			20	
Link Distance (ft)		257			375			171			405	
Travel Time (s)		5.8			8.5			7.8			13.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	13	853	83	57	949	12	22	0	9	10	0	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	949	0	0	1018	0	0	22	9	0	28	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	67.6%
Analysis Period (min)	15
	ICU Level of Service C

HCM Unsignalized Intersection Capacity Analysis
3: Retail Drive/Parkway Place

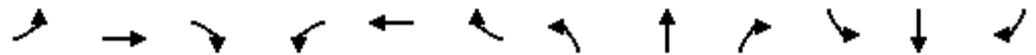
East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↕	↗		↕	
Traffic Volume (veh/h)	12	768	75	51	854	11	20	0	8	9	0	16
Future Volume (Veh/h)	12	768	75	51	854	11	20	0	8	9	0	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	13	853	83	57	949	12	22	0	9	10	0	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.95			0.82			0.85	0.85	0.82	0.85	0.85	0.95
vC, conflicting volume	961			936			1527	1996	468	1522	2031	480
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	843			496			982	1532	0	976	1574	335
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			93			86	100	99	94	100	97
cM capacity (veh/h)	746			877			158	90	894	163	85	625
Direction, Lane #												
Volume Total	440	510	532	486	31	28						
Volume Left	13	0	57	0	22	10						
Volume Right	0	83	0	12	9	18						
cSH	746	1700	877	1700	222	310						
Volume to Capacity	0.02	0.30	0.07	0.29	0.14	0.09						
Queue Length 95th (ft)	1	0	5	0	12	7						
Control Delay (s)	0.5	0.0	1.8	0.0	25.0	17.8						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.2		0.9		25.0	17.8						
Approach LOS					C	C						
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			67.6%		ICU Level of Service				C			
Analysis Period (min)			15									

Lanes, Volumes, Timings
4: Gas Station Drive/Hotel Drive

East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (vph)	4	780	1	1	906	4	5	0	23	6	0	5
Future Volume (vph)	4	780	1	1	906	4	5	0	23	6	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	15	12	12	16	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.999			0.888				0.939
Flt Protected								0.991				0.973
Satd. Flow (prot)	0	3539	0	0	3418	0	0	1803	0	0	1929	0
Flt Permitted								0.991				0.973
Satd. Flow (perm)	0	3539	0	0	3418	0	0	1803	0	0	1929	0
Link Speed (mph)		30			30			15			15	
Link Distance (ft)		375			236			185			200	
Travel Time (s)		8.5			5.4			8.4			9.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	821	1	1	954	4	5	0	24	6	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	826	0	0	959	0	0	29	0	0	11	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.9%
Analysis Period (min)	15
	ICU Level of Service A

HCM Unsignalized Intersection Capacity Analysis
4: Gas Station Drive/Hotel Drive

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (veh/h)	4	780	1	1	906	4	5	0	23	6	0	5
Future Volume (Veh/h)	4	780	1	1	906	4	5	0	23	6	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	4	821	1	1	954	4	5	0	24	6	0	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)		873			236							
pX, platoon unblocked	0.92			0.91			0.95	0.95	0.91	0.95	0.95	0.92
vC, conflicting volume	958			822			1314	1790	411	1400	1788	479
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	781			616			856	1355	167	947	1353	261
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			98	100	97	97	100	99
cM capacity (veh/h)	766			877			237	140	775	198	141	679
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	414	412	478	481	29	11						
Volume Left	4	0	1	0	5	6						
Volume Right	0	1	0	4	24	5						
cSH	766	1700	877	1700	557	293						
Volume to Capacity	0.01	0.24	0.00	0.28	0.05	0.04						
Queue Length 95th (ft)	0	0	0	0	4	3						
Control Delay (s)	0.2	0.0	0.0	0.0	11.8	17.8						
Lane LOS	A		A		B	C						
Approach Delay (s)	0.1		0.0		11.8	17.8						
Approach LOS					B	C						
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			35.9%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
5: I-91/15 On Ramp/I-91/15 Off Ramp

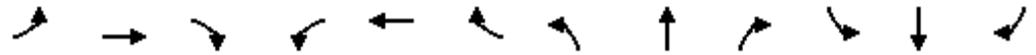
East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↖	↑	
Traffic Volume (vph)	0	653	156	171	636	0	0	0	0	209	5	275
Future Volume (vph)	0	653	156	171	636	0	0	0	0	209	5	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	10	11	11	12	12	12	15	14	12
Storage Length (ft)	0		0	130		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.971									0.853	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3630	0	1636	3388	0	0	0	0	1928	1678	0
Flt Permitted				0.274						0.950		
Satd. Flow (perm)	0	3630	0	472	3388	0	0	0	0	1928	1678	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39									284	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		236			663			543			510	
Travel Time (s)		5.4			15.1			8.2			7.7	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	3	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	0	673	161	176	656	0	0	0	0	215	5	284
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	834	0	176	656	0	0	0	0	215	289	0
Turn Type		NA		D.P+P	NA					Split	NA	
Protected Phases		2		1	1 2					4	4	
Permitted Phases				2								
Detector Phase		2		1	1 2					4	4	
Switch Phase												
Minimum Initial (s)		15.0		4.0						10.0	10.0	
Minimum Split (s)		21.0		8.0						15.0	15.0	
Total Split (s)		23.0		9.0						15.0	15.0	
Total Split (%)		32.9%		12.9%						21.4%	21.4%	
Maximum Green (s)		17.0		5.0						10.0	10.0	
Yellow Time (s)		4.0		3.0						3.0	3.0	
All-Red Time (s)		2.0		1.0						2.0	2.0	
Lost Time Adjust (s)		0.0		0.0						0.0	0.0	
Total Lost Time (s)		6.0		4.0						5.0	5.0	
Lead/Lag		Lag		Lead						Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0		2.0						2.0	2.0	
Recall Mode		C-Max		None						None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)		32.4		43.0	47.0					14.0	14.0	
Actuated g/C Ratio		0.46		0.61	0.67					0.20	0.20	
v/c Ratio		0.49		0.41	0.29					0.56	0.51	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
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	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.1
Total Split (s)	23.0
Total Split (%)	33%
Maximum Green (s)	20.9
Yellow Time (s)	2.0
All-Red Time (s)	0.1
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)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings
5: I-91/15 On Ramp/I-91/15 Off Ramp

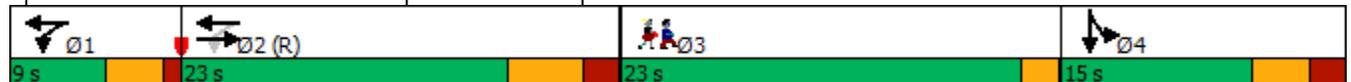


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		24.4		8.2	5.6					30.3	6.8	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		24.4		8.2	5.6					30.3	6.8	
LOS		C		A	A					C	A	
Approach Delay		24.4			6.1							16.8
Approach LOS		C			A							B
Queue Length 50th (ft)		182		23	50					84	2	
Queue Length 95th (ft)		m223		56	92					133	54	
Internal Link Dist (ft)		156			583			463				430
Turn Bay Length (ft)				130								
Base Capacity (vph)		1701		432	2274					385	562	
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		0.49		0.41	0.29					0.56	0.51	

Intersection Summary

Area Type: Other
 Cycle Length: 70
 Actuated Cycle Length: 70
 Offset: 0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 15.6
 Intersection LOS: B
 Intersection Capacity Utilization 62.3%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: I-91/15 On Ramp/I-91/15 Off Ramp



Lane Group	Ø3
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	
Reduced v/c Ratio	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
5: I-91/15 On Ramp/I-91/15 Off Ramp

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑	↑	
Traffic Volume (vph)	0	653	156	171	636	0	0	0	0	209	5	275
Future Volume (vph)	0	653	156	171	636	0	0	0	0	209	5	275
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	10	11	11	12	12	12	15	14	12
Total Lost time (s)		6.0		4.0	4.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3630		1636	3388					1928	1678	
Flt Permitted		1.00		0.27	1.00					0.95	1.00	
Satd. Flow (perm)		3630		472	3388					1928	1678	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	673	161	176	656	0	0	0	0	215	5	284
RTOR Reduction (vph)	0	21	0	0	0	0	0	0	0	0	227	0
Lane Group Flow (vph)	0	813	0	176	656	0	0	0	0	215	62	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	3	0	0	0	0	0	0	0	0	0	0	0
Turn Type		NA		D.P+P	NA					Split	NA	
Protected Phases		2		1	1 2					4	4	
Permitted Phases				2								
Actuated Green, G (s)		32.4		41.0	45.0					14.0	14.0	
Effective Green, g (s)		32.4		41.0	45.0					14.0	14.0	
Actuated g/C Ratio		0.46		0.59	0.64					0.20	0.20	
Clearance Time (s)		6.0		4.0						5.0	5.0	
Vehicle Extension (s)		6.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1680		419	2178					385	335	
v/s Ratio Prot		c0.22		c0.05	0.19					c0.11	0.04	
v/s Ratio Perm				0.19								
v/c Ratio		0.48		0.42	0.30					0.56	0.18	
Uniform Delay, d1		13.0		7.1	5.5					25.2	23.3	
Progression Factor		1.67		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.7		0.2	0.0					1.0	0.1	
Delay (s)		22.5		7.4	5.6					26.2	23.4	
Level of Service		C		A	A					C	C	
Approach Delay (s)		22.5			5.9			0.0			24.6	
Approach LOS		C			A			A			C	
Intersection Summary												
HCM 2000 Control Delay			16.6			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			70.0			Sum of lost time (s)			17.1			
Intersection Capacity Utilization			62.3%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
1: Paddock Ave/Gravel Street & East Main Street

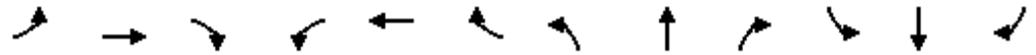
East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	548	78	207	680	100	126	92	157	175	92	67
Future Volume (vph)	62	548	78	207	680	100	126	92	157	175	92	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	12	12	10	12	12
Storage Length (ft)	100		0	175		0	75		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.981			0.981			0.905				0.937
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3356	0	1711	3356	0	1652	1686	0	1652	1745	0
Fl _t Permitted	0.207			0.207			0.950			0.950		
Satd. Flow (perm)	373	3356	0	373	3356	0	1652	1686	0	1652	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			18			77				33
Link Speed (mph)		30			30			30				30
Link Distance (ft)		991			241			626				602
Travel Time (s)		22.5			5.5			14.2				13.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	65	571	81	216	708	104	131	96	164	182	96	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	652	0	216	812	0	131	260	0	182	166	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		7	8		7	8	
Permitted Phases	6			2								
Detector Phase	1	6		5	2		7	8		7	8	
Switch Phase												
Minimum Initial (s)	4.0	15.0		4.0	15.0		4.0	9.0		4.0	9.0	
Minimum Split (s)	8.0	21.0		8.0	21.0		8.0	15.0		8.0	15.0	
Total Split (s)	8.0	31.0		8.0	31.0		10.0	16.0		10.0	16.0	
Total Split (%)	8.9%	34.4%		8.9%	34.4%		11.1%	17.8%		11.1%	17.8%	
Maximum Green (s)	4.9	25.0		4.9	25.0		6.9	10.0		6.9	10.0	
Yellow Time (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.1	2.0		0.1	2.0		0.1	2.0		0.1	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag			Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	32.0	23.2		37.5	28.1		20.9	18.5		20.9	18.5	
Actuated g/C Ratio	0.36	0.26		0.42	0.31		0.23	0.21		0.23	0.21	
v/c Ratio	0.30	0.74		0.74	0.77		0.34	0.64		0.48	0.43	
Control Delay	19.2	35.4		34.3	30.4		32.9	30.0		35.6	28.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
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	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	25.0
Total Split (%)	28%
Maximum Green (s)	23.0
Yellow Time (s)	2.0
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)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

Lanes, Volumes, Timings
 1: Paddock Ave/Gravel Street & East Main Street

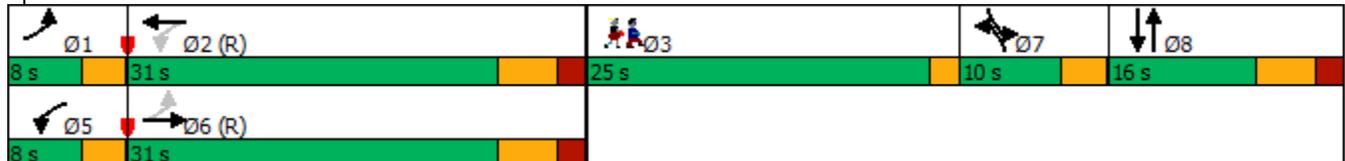


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.2	35.4		34.3	30.4		32.9	30.0		35.6	28.0	
LOS	B	D		C	C		C	C		D	C	
Approach Delay		33.9			31.2			31.0				32.0
Approach LOS		C			C			C				C
Queue Length 50th (ft)	20	169		54	213		64	95		92	66	
Queue Length 95th (ft)	49	231		#235	#327		117	167		158	118	
Internal Link Dist (ft)		911			161			546				522
Turn Bay Length (ft)	100			175			75			200		
Base Capacity (vph)	221	944		292	1059		383	407		383	385	
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	0.29	0.69		0.74	0.77		0.34	0.64		0.48	0.43	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 32.1
 Intersection LOS: C
 Intersection Capacity Utilization 69.9%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Paddock Ave/Gravel Street & East Main Street



Lane Group	Ø3
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	
Reduced v/c Ratio	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
1: Paddock Ave/Gravel Street & East Main Street

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	548	78	207	680	100	126	92	157	175	92	67
Future Volume (vph)	62	548	78	207	680	100	126	92	157	175	92	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	11	11	11	10	12	12	10	12	12
Total Lost time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.91		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1711	3357		1711	3356		1652	1687		1652	1745	
Flt Permitted	0.21	1.00		0.21	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	373	3357		372	3356		1652	1687		1652	1745	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	65	571	81	216	708	104	131	96	164	182	96	70
RTOR Reduction (vph)	0	13	0	0	13	0	0	61	0	0	26	0
Lane Group Flow (vph)	65	639	0	216	799	0	131	199	0	182	140	0
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	1	6		5	2		7	8		7	8	
Permitted Phases	6			2								
Actuated Green, G (s)	28.2	23.2		35.5	27.4		20.9	18.5		20.9	18.5	
Effective Green, g (s)	28.2	23.2		35.5	27.4		20.9	18.5		20.9	18.5	
Actuated g/C Ratio	0.31	0.26		0.39	0.30		0.23	0.21		0.23	0.21	
Clearance Time (s)	3.1	6.0		3.1	6.0		3.1	6.0		3.1	6.0	
Vehicle Extension (s)	2.0	5.0		2.0	5.0		2.0	2.0		2.0	2.0	
Lane Grp Cap (vph)	191	865		283	1021		383	346		383	358	
v/s Ratio Prot	0.02	0.19		c0.08	c0.24		0.08	c0.12		c0.11	0.08	
v/s Ratio Perm	0.09			0.22								
v/c Ratio	0.34	0.74		0.76	0.78		0.34	0.57		0.48	0.39	
Uniform Delay, d1	22.6	30.6		20.2	28.6		28.8	32.2		29.8	30.9	
Progression Factor	1.00	1.00		0.81	0.88		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	5.6		9.9	5.7		0.2	1.4		0.3	0.3	
Delay (s)	23.0	36.3		26.3	30.8		29.0	33.6		30.2	31.1	
Level of Service	C	D		C	C		C	C		C	C	
Approach Delay (s)		35.0			29.9			32.1			30.6	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.2
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings
2: Retail Drive/Margerie Street

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	824	49	64	952	75	9	2	27	1	2	26
Future Volume (vph)	7	824	49	64	952	75	9	2	27	1	2	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	14	12	12	12	12
Storage Length (ft)	0		0	10		10	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.990			0.905			0.878	
Flt Protected					0.997			0.988			0.998	
Satd. Flow (prot)	0	3394	0	0	3377	0	0	1777	0	0	1632	0
Flt Permitted					0.997			0.988			0.998	
Satd. Flow (perm)	0	3394	0	0	3377	0	0	1777	0	0	1632	0
Link Speed (mph)		30			30			15			20	
Link Distance (ft)		241			257			194			265	
Travel Time (s)		5.5			5.8			8.8			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	7	877	52	68	1013	80	10	2	29	1	2	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	936	0	0	1161	0	0	41	0	0	31	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	71.6%
Analysis Period (min)	15
	ICU Level of Service C

HCM Unsignalized Intersection Capacity Analysis
2: Retail Drive/Margerie Street

East Main Street Corridor Study
2018 Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	824	49	64	952	75	9	2	27	1	2	26
Future Volume (Veh/h)	7	824	49	64	952	75	9	2	27	1	2	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	7	877	52	68	1013	80	10	2	29	1	2	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		241			868							
pX, platoon unblocked	0.94			0.83			0.86	0.86	0.83	0.86	0.86	0.94
vC, conflicting volume	1093			929			1588	2146	464	1672	2132	546
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	970			518			1051	1696	0	1147	1680	388
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			92			93	97	97	99	97	95
cM capacity (veh/h)	664			871			136	72	905	118	74	574
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	446	490	574	586	41	31						
Volume Left	7	0	68	0	10	1						
Volume Right	0	52	0	80	29	28						
cSH	664	1700	871	1700	308	368						
Volume to Capacity	0.01	0.29	0.08	0.34	0.13	0.08						
Queue Length 95th (ft)	1	0	6	0	11	7						
Control Delay (s)	0.3	0.0	2.1	0.0	18.5	15.7						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.1		1.0		18.5	15.7						
Approach LOS					C	C						
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			71.6%		ICU Level of Service				C			
Analysis Period (min)			15									

Lanes, Volumes, Timings
3: Retail Drive/Parkway Place

East Main Street Corridor Study
2018 Existing Conditions

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	819	23	46	1071	16	13	0	6	6	0	7
Future Volume (vph)	10	819	23	46	1071	16	13	0	6	6	0	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	10	10	12	12	12
Storage Length (ft)	0		0	250		0	0		50	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.998				0.850		0.927	
Flt Protected		0.999			0.998			0.950			0.977	
Satd. Flow (prot)	0	3404	0	0	3408	0	0	1652	1478	0	1687	0
Flt Permitted		0.999			0.998			0.950			0.977	
Satd. Flow (perm)	0	3404	0	0	3408	0	0	1652	1478	0	1687	0
Link Speed (mph)		30			30			15			20	
Link Distance (ft)		257			375			171			405	
Travel Time (s)		5.8			8.5			7.8			13.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	10	853	24	48	1116	17	14	0	6	6	0	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	887	0	0	1181	0	0	14	6	0	13	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	71.3%
Analysis Period (min)	15
	ICU Level of Service C

HCM Unsignalized Intersection Capacity Analysis

3: Retail Drive/Parkway Place

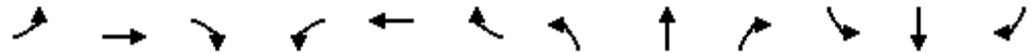
East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↕	↗		↕	
Traffic Volume (veh/h)	10	819	23	46	1071	16	13	0	6	6	0	7
Future Volume (Veh/h)	10	819	23	46	1071	16	13	0	6	6	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	10	853	24	48	1116	17	14	0	6	6	0	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked	0.91			0.86			0.90	0.90	0.86	0.90	0.90	0.91
vC, conflicting volume	1133			877			1546	2114	438	1667	2118	566
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	954			526			952	1582	15	1087	1586	334
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			95			92	100	99	96	100	99
cM capacity (veh/h)	653			890			181	91	910	145	90	604
Direction, Lane #												
Volume Total	436	450	606	575	20	13						
Volume Left	10	0	48	0	14	6						
Volume Right	0	24	0	17	6	7						
cSH	653	1700	890	1700	258	245						
Volume to Capacity	0.02	0.27	0.05	0.34	0.08	0.05						
Queue Length 95th (ft)	1	0	4	0	6	4						
Control Delay (s)	0.5	0.0	1.4	0.0	21.3	20.5						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.2		0.7		21.3	20.5						
Approach LOS					C	C						
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			71.3%		ICU Level of Service				C			
Analysis Period (min)			15									

Lanes, Volumes, Timings
4: Gas Station Drive/Hotel Drive

East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (vph)	9	821	1	1	1119	10	8	1	25	1	1	6
Future Volume (vph)	9	821	1	1	1119	10	8	1	25	1	1	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	15	12	12	16	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.999			0.900				0.899
Flt Protected		0.999						0.989				0.994
Satd. Flow (prot)	0	3536	0	0	3418	0	0	1824	0	0	1887	0
Flt Permitted		0.999						0.989				0.994
Satd. Flow (perm)	0	3536	0	0	3418	0	0	1824	0	0	1887	0
Link Speed (mph)		30			30			15			15	
Link Distance (ft)		375			236			185			200	
Travel Time (s)		8.5			5.4			8.4			9.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	9	855	1	1	1166	10	8	1	26	1	1	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	865	0	0	1177	0	0	35	0	0	8	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.1%
ICU Level of Service	A
Analysis Period (min)	15

HCM Unsignalized Intersection Capacity Analysis
4: Gas Station Drive/Hotel Drive

East Main Street Corridor Study
2018 Existing Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	821	1	1	1119	10	8	1	25	1	1	6
Future Volume (Veh/h)	9	821	1	1	1119	10	8	1	25	1	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	9	855	1	1	1166	10	8	1	26	1	1	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		873			236							
pX, platoon unblocked	0.90			0.90			0.95	0.95	0.90	0.95	0.95	0.90
vC, conflicting volume	1176			856			1465	2052	428	1645	2047	588
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	974			611			906	1526	134	1096	1521	321
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			96	99	97	99	99	99
cM capacity (veh/h)	633			865			213	109	799	151	110	607
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	436	428	584	593	35	8						
Volume Left	9	0	1	0	8	1						
Volume Right	0	1	0	10	26	6						
cSH	633	1700	865	1700	441	312						
Volume to Capacity	0.01	0.25	0.00	0.35	0.08	0.03						
Queue Length 95th (ft)	1	0	0	0	6	2						
Control Delay (s)	0.4	0.0	0.0	0.0	13.9	16.8						
Lane LOS	A		A		B	C						
Approach Delay (s)	0.2		0.0		13.9	16.8						
Approach LOS					B	C						
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			42.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
5: I-91/15 On Ramp/I-91/15 Off Ramp

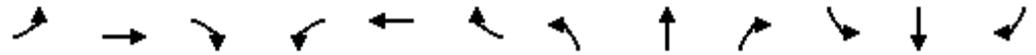
East Main Street Corridor Study
2018 Existing Conditions



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑					↖	↑	
Traffic Volume (vph)	0	681	166	233	774	0	0	0	0	239	6	356
Future Volume (vph)	0	681	166	233	774	0	0	0	0	239	6	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	14	12	10	11	11	12	12	12	15	14	12
Storage Length (ft)	0		0	130		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.971									0.852	
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3630	0	1636	3388	0	0	0	0	1928	1676	0
Flt Permitted				0.235						0.950		
Satd. Flow (perm)	0	3630	0	405	3388	0	0	0	0	1928	1676	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30										379
Link Speed (mph)		30			30			45				45
Link Distance (ft)		236			663			543				510
Travel Time (s)		5.4			15.1			8.2				7.7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	3	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	0	724	177	248	823	0	0	0	0	254	6	379
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	901	0	248	823	0	0	0	0	254	385	0
Turn Type		NA		D.P+P	NA					Split		NA
Protected Phases		2		1	1 2					4		4
Permitted Phases				2								
Detector Phase		2		1	1 2					4		4
Switch Phase												
Minimum Initial (s)		15.0		4.0						10.0		10.0
Minimum Split (s)		21.0		8.0						15.0		15.0
Total Split (s)		25.0		14.0						28.0		28.0
Total Split (%)		27.8%		15.6%						31.1%		31.1%
Maximum Green (s)		19.0		10.0						23.0		23.0
Yellow Time (s)		4.0		3.0						3.0		3.0
All-Red Time (s)		2.0		1.0						2.0		2.0
Lost Time Adjust (s)		0.0		0.0						0.0		0.0
Total Lost Time (s)		6.0		4.0						5.0		5.0
Lead/Lag		Lag		Lead						Lag		Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0		2.0						2.0		2.0
Recall Mode		C-Max		None						None		None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		42.7		59.0	63.0					18.0		18.0
Actuated g/C Ratio		0.47		0.66	0.70					0.20		0.20
v/c Ratio		0.52		0.54	0.35					0.66		0.60

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
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	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.1
Total Split (s)	23.0
Total Split (%)	26%
Maximum Green (s)	20.9
Yellow Time (s)	2.0
All-Red Time (s)	0.1
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)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	

Lanes, Volumes, Timings
5: I-91/15 On Ramp/I-91/15 Off Ramp

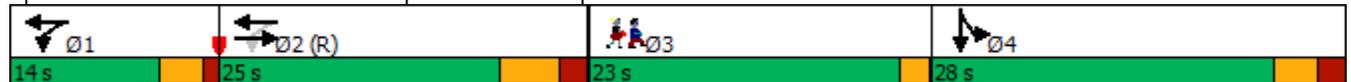


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay		30.9		11.0	6.6					40.7	7.6	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		30.9		11.0	6.6					40.7	7.6	
LOS		C		B	A					D	A	
Approach Delay		30.9			7.6						20.7	
Approach LOS		C			A						C	
Queue Length 50th (ft)		243		43	83					134	3	
Queue Length 95th (ft)		346		99	151					190	67	
Internal Link Dist (ft)		156			583			463			430	
Turn Bay Length (ft)				130								
Base Capacity (vph)		1738		469	2358					504	718	
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		0.52		0.53	0.35					0.50	0.54	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBWB and 6:, Start of Green
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	18.9
Intersection LOS:	B
Intersection Capacity Utilization:	71.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 5: I-91/15 On Ramp/I-91/15 Off Ramp



Lane Group	Ø3
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	
Reduced v/c Ratio	
Intersection Summary	

HCM Signalized Intersection Capacity Analysis
5: I-91/15 On Ramp/I-91/15 Off Ramp

East Main Street Corridor Study
2018 Existing Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑					↑	↑	
Traffic Volume (vph)	0	681	166	233	774	0	0	0	0	239	6	356
Future Volume (vph)	0	681	166	233	774	0	0	0	0	239	6	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	14	12	10	11	11	12	12	12	15	14	12
Total Lost time (s)		6.0		4.0	4.0					5.0	5.0	
Lane Util. Factor		0.95		1.00	0.95					1.00	1.00	
Frt		0.97		1.00	1.00					1.00	0.85	
Flt Protected		1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)		3628		1636	3388					1928	1677	
Flt Permitted		1.00		0.24	1.00					0.95	1.00	
Satd. Flow (perm)		3628		405	3388					1928	1677	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	724	177	248	823	0	0	0	0	254	6	379
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	0	0	303	0
Lane Group Flow (vph)	0	885	0	248	823	0	0	0	0	254	82	0
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Bus Blockages (#/hr)	3	0	0	0	0	0	0	0	0	0	0	0
Turn Type		NA		D.P+P	NA					Split	NA	
Protected Phases		2		1	1 2					4	4	
Permitted Phases				2								
Actuated Green, G (s)		42.7		57.0	61.0					18.0	18.0	
Effective Green, g (s)		42.7		57.0	61.0					18.0	18.0	
Actuated g/C Ratio		0.47		0.63	0.68					0.20	0.20	
Clearance Time (s)		6.0		4.0						5.0	5.0	
Vehicle Extension (s)		6.0		2.0						2.0	2.0	
Lane Grp Cap (vph)		1721		452	2296					385	335	
v/s Ratio Prot		0.24		c0.09	0.24					c0.13	0.05	
v/s Ratio Perm				c0.26								
v/c Ratio		0.51		0.55	0.36					0.66	0.24	
Uniform Delay, d1		16.4		8.3	6.2					33.2	30.3	
Progression Factor		1.64		1.00	1.00					1.00	1.00	
Incremental Delay, d2		0.9		0.7	0.0					3.1	0.1	
Delay (s)		27.9		9.1	6.2					36.3	30.4	
Level of Service		C		A	A					D	C	
Approach Delay (s)		27.9			6.9			0.0			32.8	
Approach LOS		C			A			A			C	
Intersection Summary												
HCM 2000 Control Delay			20.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			90.0			Sum of lost time (s)			17.1			
Intersection Capacity Utilization			71.9%			ICU Level of Service				C		
Analysis Period (min)			15									
c	Critical Lane Group											

Table 2
Existing Condition Signalized Intersection Level of Service Summary
East Main Street
Meriden, Connecticut

	Morning Peak Hour	Midday Peak Hour	Afternoon Peak Hour
East Main Street at Paddock Avenue/ Gravel Street	0.72/ LOS D/ 37.2*	0.62/LOS C/34.6*	0.68/ LOS C/31.8*
EB Approach	LOS D/47.6	LOS D/51.5	LOS D/35.0
WB Approach	LOS C/33.7	LOS C/24.6	LOS C/29.9
NB Approach	LOS C/33.4	LOS C/24.7	LOS C/32.1
SB Approach	LOS C/25.6	LOS C/23.7	LOS C/30.6
East Main Street at I-91 Southbound Ramps	0.68/ LOS C/29.5	0.51/LOS B/16.6	0.59/LOS C/20.5
EB Approach	LOS D/ 47.8	LOS C/22.5	LOS C/27.9
WB Approach	LOS B/11.5	LOS A/5.9	LOS A/6.9
SB Approach	LOS C/23.5	LOS C/24.6	LOS C/32.8

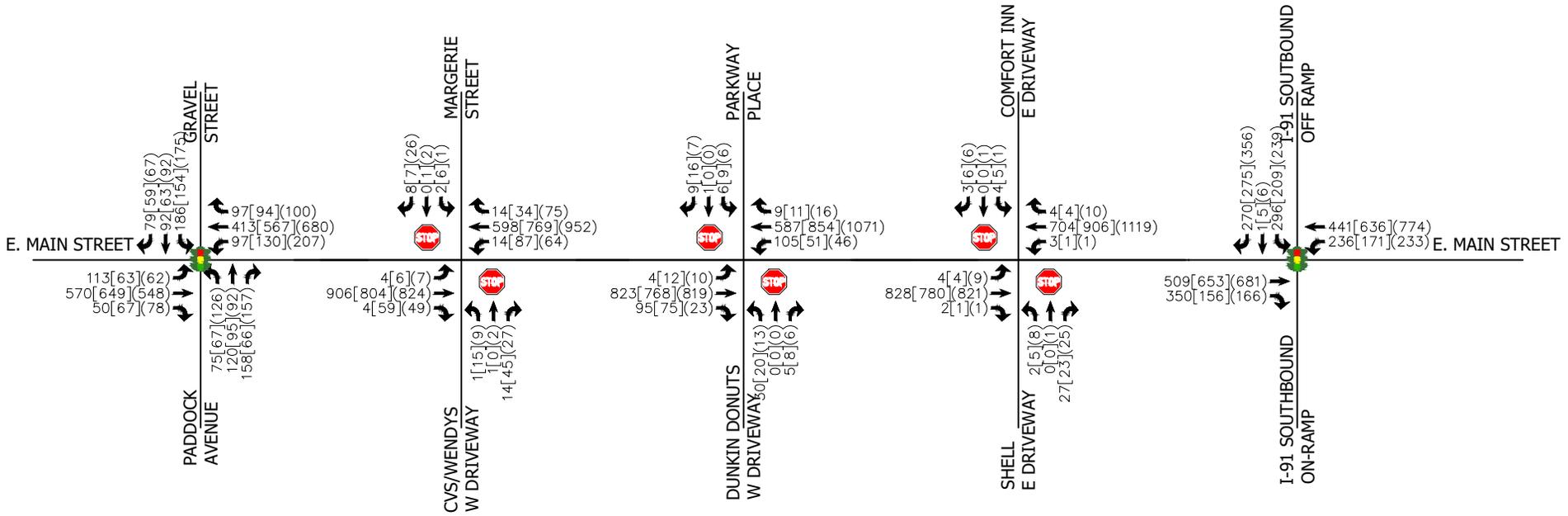
*Values indicated are intersection max v/c Ratio/LOS/Delay (sec)

Table 3
Existing Condition Unsignalized Intersection Level of Service Summary
East Main Street
Meriden, Connecticut

	Morning Peak Hour	Midday Peak Hour	Afternoon Peak Hour
East Main Street at Retail Drive/Margerie Street			
EB Approach	LOS A/0.1	LOS A/0.1	LOS A/ 0.1
WB Approach	LOS A/0.3	LOS A/1.4	LOS A/1.0
NB Approach	LOS B/12.1	LOS C/17.9	LOS C/18.5
SB Approach	LOS B/12.8	LOS D/26.5	LOS C/15.7
East Main Street at Retail Drive/ Parkway Place			
EB Approach	LOS A/0.1	LOS A/0.2	LOS A/0.2
WB Approach	LOS A/2.1	LOS A/0.9	LOS A/0.7
NB Approach	LOS D/33.0	LOS C/25.0	LOS C/21.3
SB Approach	LOS C/17.0	LOS C/17.8	LOS C/20.5
East Main Street at Gas Station Drive/ Hotel Drive			
EB Approach	LOS A/0.1	LOS A/0.1	LOS A/0.2
WB Approach	LOS A/ 0.1	LOS A/0.0	LOS A/0.0
NB Approach	LOS B/10.7	LOS B/11.8	LOS B/13.9
SB Approach	LOS C/16.3	LOS C/17.8	LOS C/16.8

Table 4
Existing Condition Queue Length Summary
East Main Street
Meriden, Connecticut

Intersection	Approach Lane	Morning Peak Hour	Midday Peak Hour	Afternoon Peak Hour	Storage Length
East Main Street at Paddock Avenue/Gravel Street	EB Left Turn	90 Feet	40 Feet	50 Feet	85 Feet
	EB Through/Right	285 Feet	280 Feet	230 Feet	1000 Feet
	WB Left Turn	60 Feet	70 Feet	235 Feet	200 Feet
	WB Through/Right	145 Feet	245 Feet	325 Feet	1030 Feet
	NB Left Turn	70 Feet	55 Feet	115 Feet	200 Feet
	NB Through/Right	190 Feet	100 Feet	165 Feet	1400 Feet
	SB Left Turn	155 Feet	110 Feet	160 Feet	200 Feet
East Main Street at Retail Drive/Margerie Street	EB Approach	0 Feet	0 Feet	0 Feet	175 Feet
	WB Approach	0 Feet	10 Feet	5 Feet	200 Feet
	NB Approach	0 Feet	15 Feet	10 Feet	920 Feet
	SB Approach	5 Feet	5 Feet	5 Feet	25 Feet
East Main Street at Retail Drive/ Parkway Place	EB Approach	0 Feet	0 Feet	0 Feet	230 Feet
	WB Approach	10 Feet	5 Feet	5 Feet	400 Feet
	NB Approach	20 Feet	10 Feet	5 Feet	875 Feet
	SB Approach	5 Feet	5 Feet	5 Feet	40 Feet
East Main Street at Gas Station Drive/ Hotel Drive	EB Approach	0 Feet	0 Feet	0 Feet	275 Feet
	WB Approach	0 Feet	0 Feet	0 Feet	150 Feet
	NB Approach	5 Feet	5 Feet	5 Feet	20 Feet
	SB Approach	0 Feet	5 Feet	0 Feet	20 Feet
East Main Street at I-91 Southbound Ramps	EB Approach	250 Feet	225 Feet	345 Feet	1030 Feet
	WB Left Turn	140 Feet	55 Feet	100 Feet	115 Feet
	WB Through/Right	85 Feet	90 Feet	150 Feet	955 Feet
	SB Left Turn	210 Feet	130 Feet	190 Feet	3000 Feet
	SB Through/Right	50 Feet	55 Feet	65 Feet	2640 Feet



XX(XX) = WEEKDAY MORNING PEAK HOUR [WEEKDAY MIDDAY PEAK HOUR] (WEEKDAY PM PEAK HOUR)

FIGURE 2: 2018 EXISTING TRAFFIC VOLUMES

PROJ. NO: 20170449.A10

EAST MAIN STREET - MERIDEN, CT

NOVEMBER 2018



Appendix B

Public Outreach Materials

**SAVE THE
DATE!**

**Tuesday, December 12th
6:00 pm**



East Main Street Corridor Study

You're Invited to the Public Workshop

Please join us 6:00 p.m. to offer your input on the East Main Street Corridor Study. The study seeks to determine the best ways to alleviate the traffic conditions on East Main Street in the area of Gravel Street and the I-91/Route 15 ramps. As project stakeholders and everyday users of this corridor, your input will be crucial to the development of viable improvement alternatives. We look forward to seeing you at the meeting.

**Maloney High School
Cafeteria
121 Gravel Street
Meriden, CT 06450**

For more information please contact:

Howard Weissberg, City Engineer
hweissberg@meridencr.gov





East Main Street Corridor Study

Public Workshop No. 1

December 12, 2018

Team Introductions

- Study funded by South Central Regional Council of Governments (SCRCOG)
- Team
 - City of Meriden
 - Howard Weissberg, PE
 - Emile Pierides, PE
 - SCRCOG
 - Stephen Dudley
 - Fuss & O'Neill
 - Matthew Skelly, PE, PTOE
 - Katherine Patch, EIT

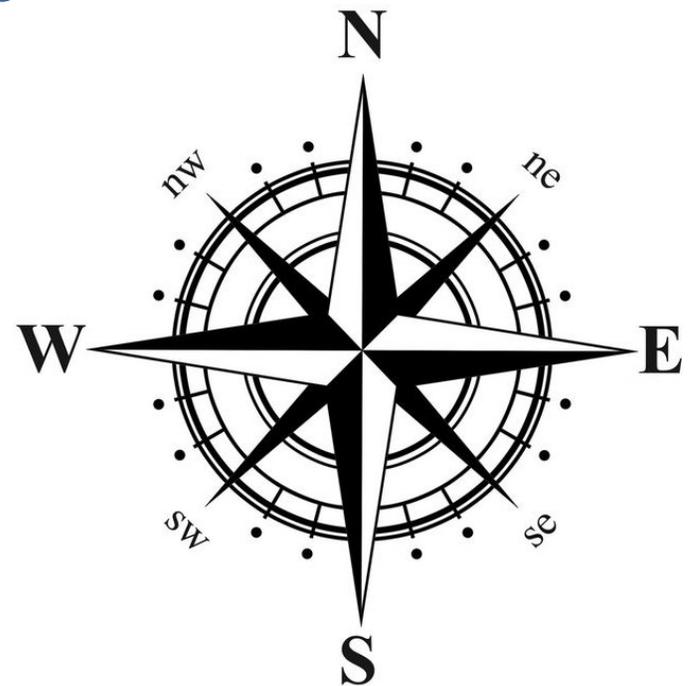


SCRCOG



Presentation Outline

- Project Corridor and Background
- Existing Conditions
 - Street Section – Lane Use & Dimensions
 - Zoning & Land Use
 - Analyzed Intersections
 - Traffic Analysis
 - Crash Data
 - Curb Cuts
 - Facilities & Services
- Break for Q&A
- Solutions Toolbox



Project Corridor



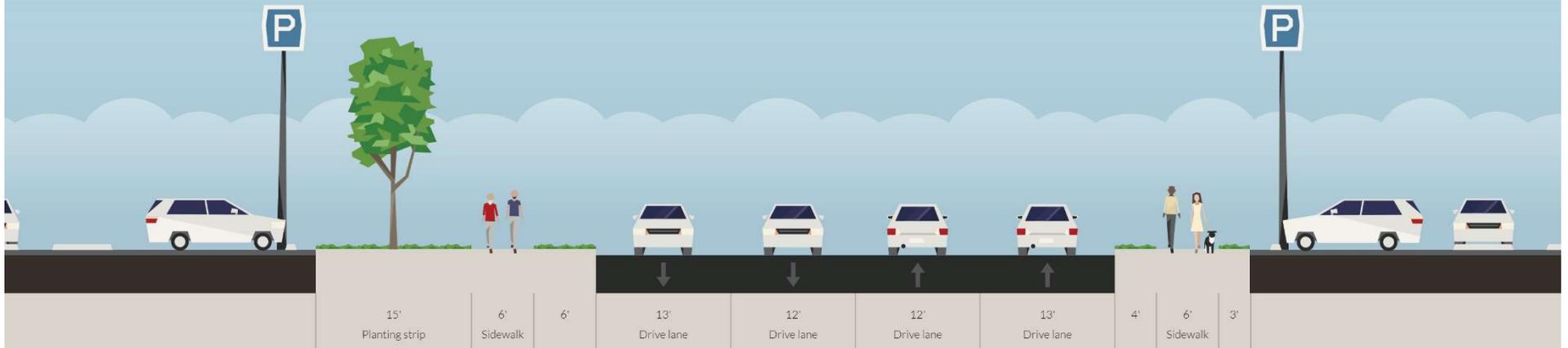
Project Background

- East Main Street is a four lane main thoroughway that connects I-91/Route 15 with downtown
- Average daily traffic (ADT) of approximately 25,500 vehicles
 - ADT of approximately 6200 vehicles on Gravel Road
 - ADT of approximately 5400 vehicles on Paddock Avenue
- This quarter-mile corridor averages 36 crashes per year, with a total of 111 crashes occurring in the last 3 years



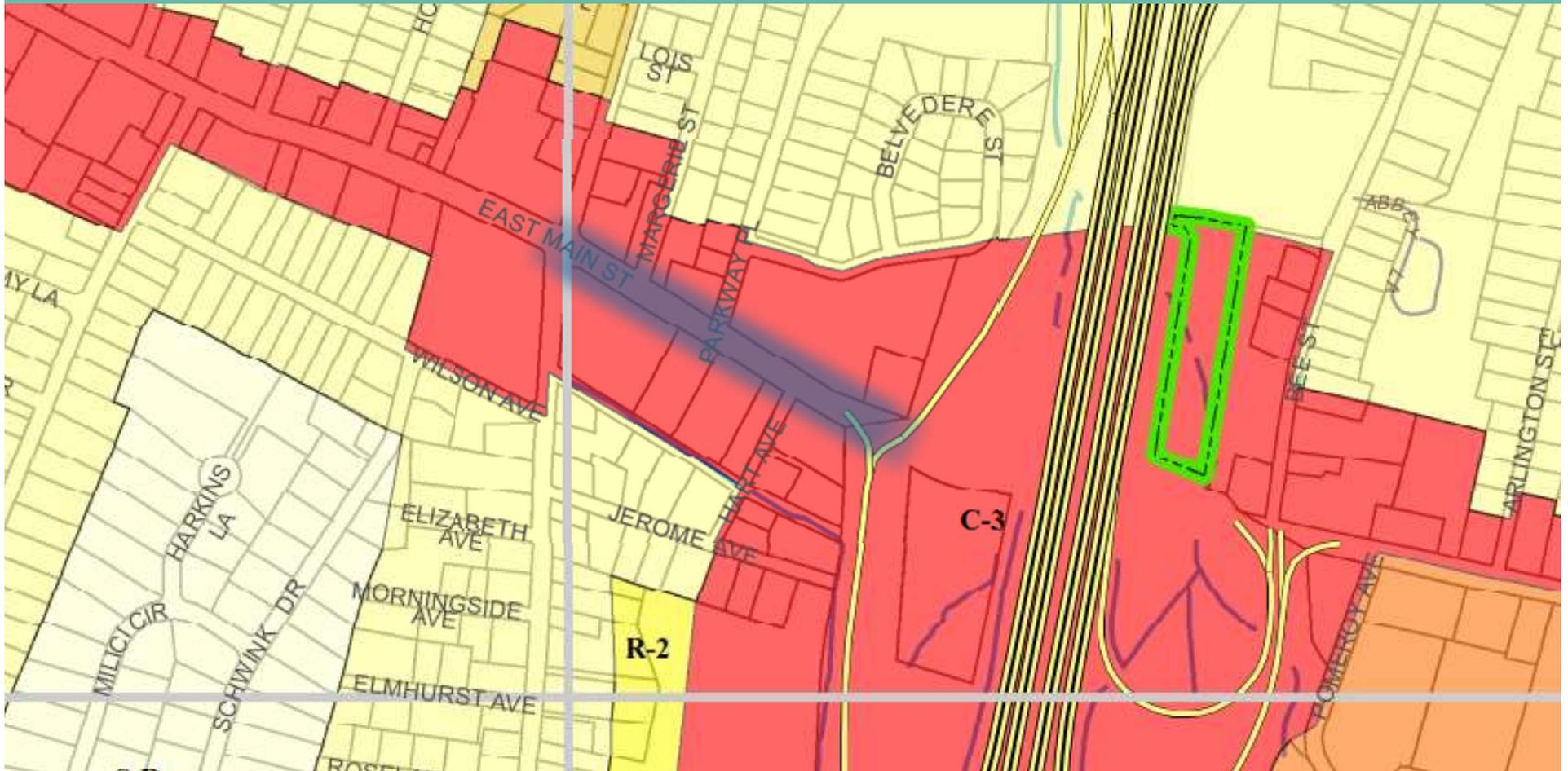
Existing Conditions – Street Section

East Main Street btwn Margerie and Parkway



- East Main Street is approximately 60' wide on average
- Along East Main Street, the average building is set back approximately 85' from the roadway

Existing Conditions – Zoning & Land Use



Legend

Zoning Districts

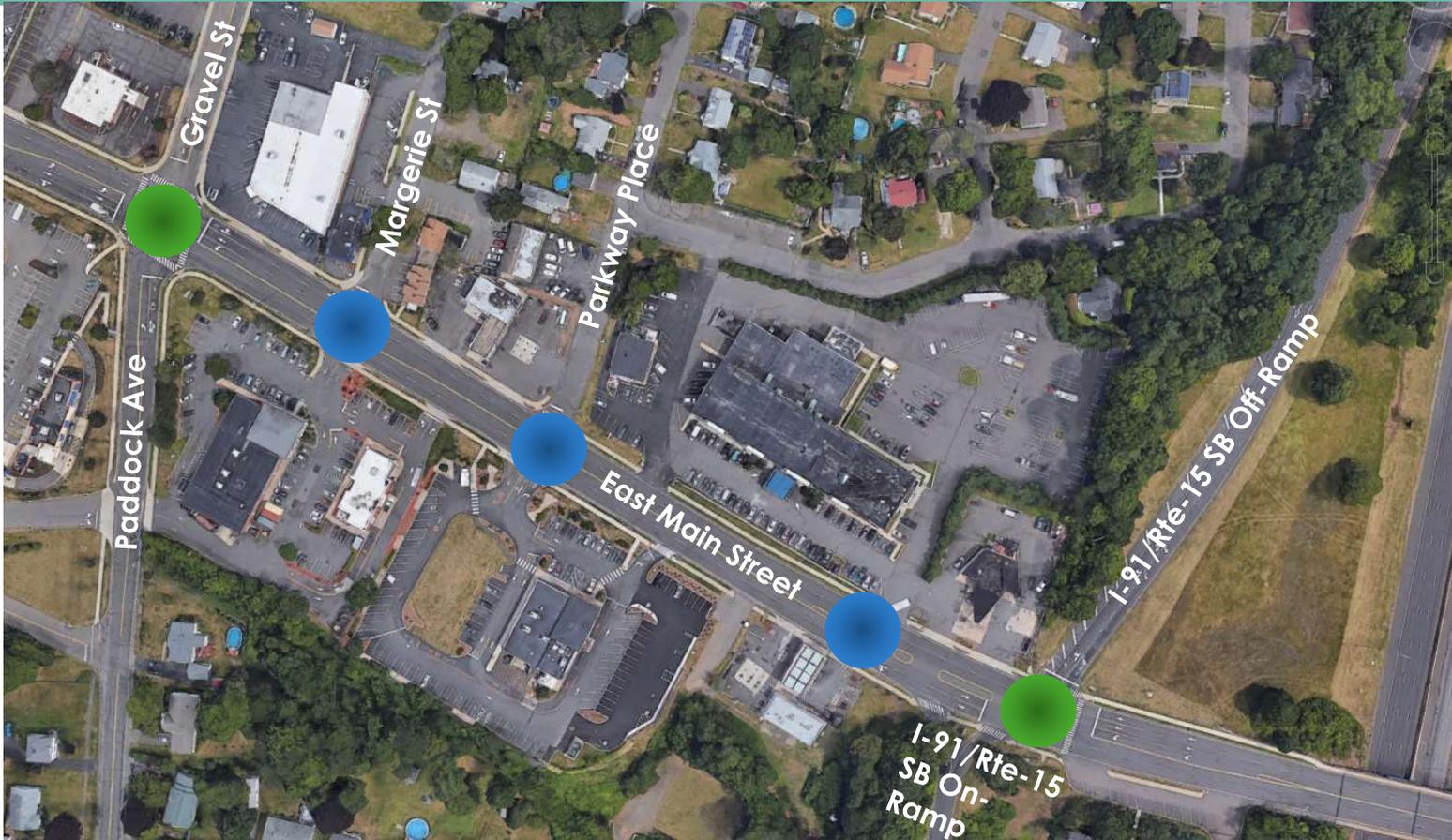
-  C-2 General Commercial
-  C-3 Highway Commercial
-  S-R Suburban Residential
-  R-1 Single Family Residential
-  R-2 Two-Three Family Residential
-  R-3 Multiple Family Residential

Zoning Overlay Districts

-  BILLBOARD OVERLAY

 Study Corridor

Existing Conditions – Analyzed Intersections



Signalized intersections

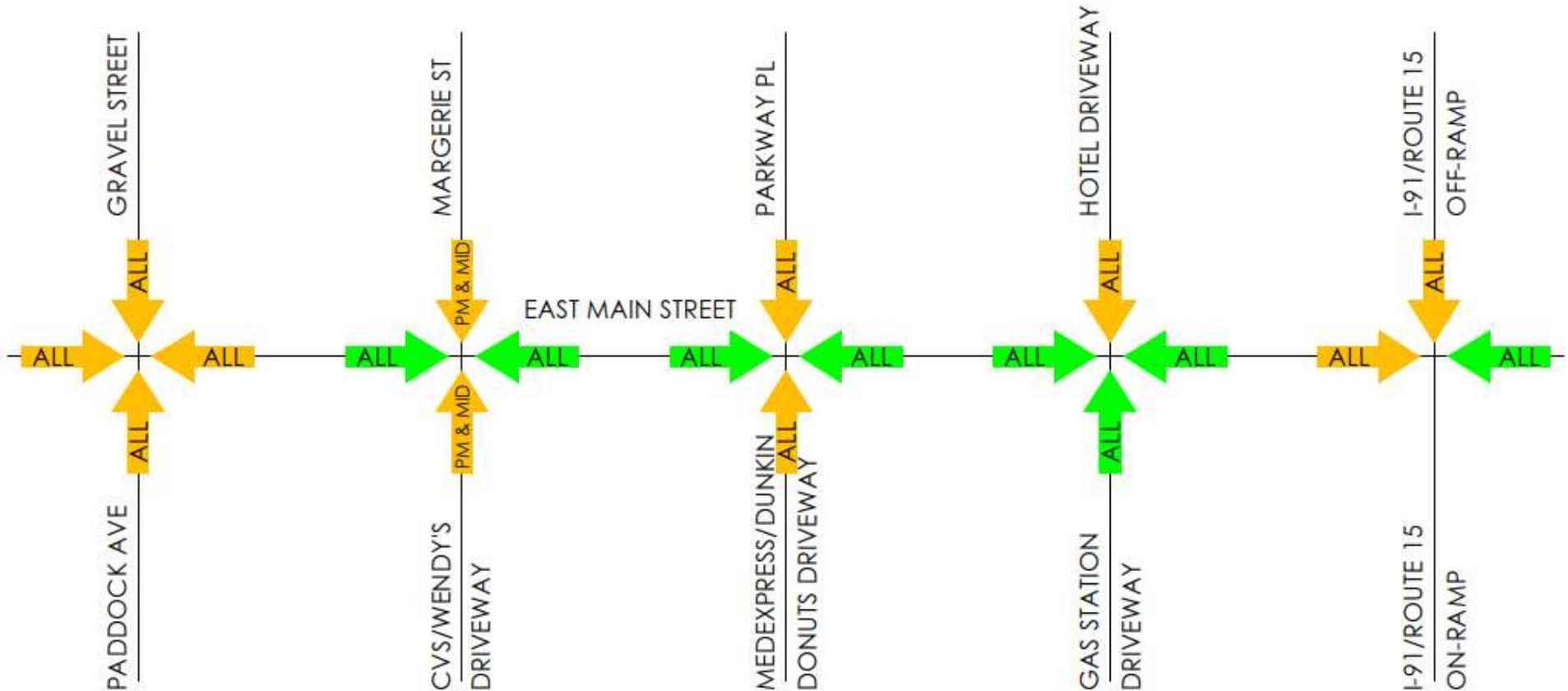
- At Paddock Avenue and Gravel Road
- At I-91/Route 15 Southbound Ramps



Unsignalized intersections

- At Margerie Street/ CVS and Wendy's Driveway
- At Parkway Place/ MedExpress and Dunkin Donuts Driveway
- At Hotel Driveway and Shell Station Drive

Existing Conditions – Traffic Analysis



PEAK HOURS	
AM PEAK	7-9AM
MIDDAY PEAK	11AM-1PM
PM PEAK	4-6PM

LEVELS OF SERVICE (LOS)		
SYMBOL	DELAY (SECONDS)	LOS
	0 - 20	LOS A AND B
	21 - 55	LOS C AND D
	56 +	LOS E AND F

Existing Conditions – Crash Data

Based on the University of Connecticut Crash Data Repository

Roadway Segment/Intersection	2015	2016	2017	Total	Average
East Main Street at Paddock Ave/Gravel St	24	18	15	57	19
East Main Street at Margerie Street	4	5	4	13	4
East Main Street at Parkway Place	2	4	6	12	4
East Main Street at Hotel Driveway	4	7	2	13	4
East Main Street at I-91 Southbound Ramps	5	8	3	16	5
Total	39	42	30	111	36

Existing Conditions – Curb Cuts



Existing Conditions – Facilities and Services



- Four bus stop locations (CT Transit and Middletown Area Transit (MAT) – no marked stop locations, bus shelters, or benches
- Sidewalks along the entire length of the corridor
- Crosswalks and pedestrian phasing at both signalized intersections
- Street lights at signalized intersections

**Break for
Questions/Discussion**

How can East Main Street be Improved?

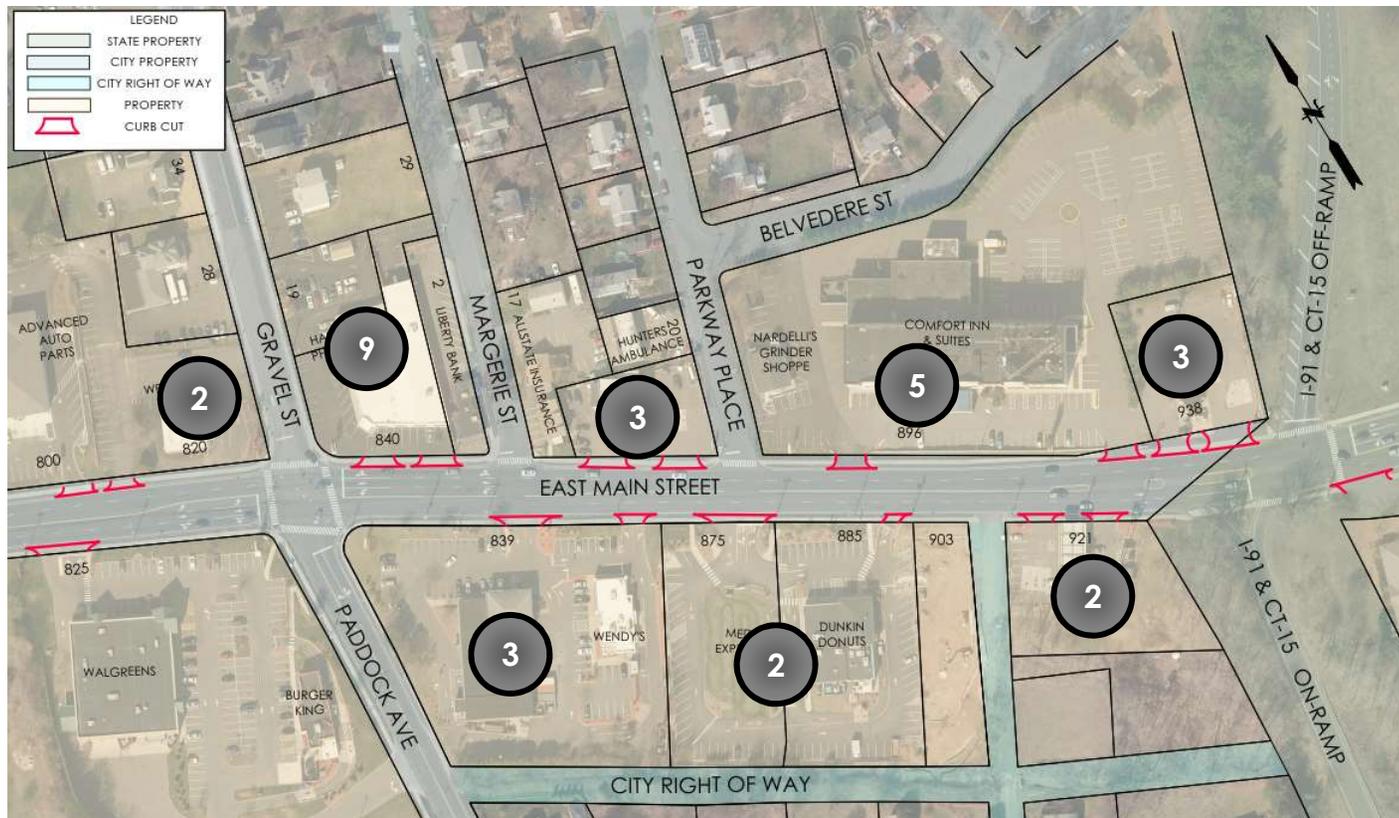
Important Criteria

- Vehicular safety
- Pedestrian Safety
- Travel time
- Interior access between properties
- Exterior access in/out of the properties
- Mobility
- Impact on adjacent properties

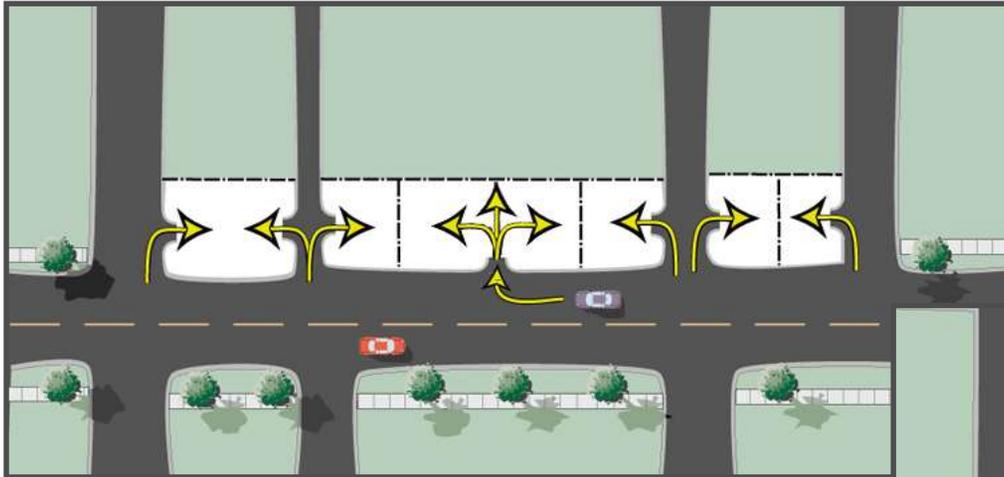


Solutions Toolbox – Access Management

- 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

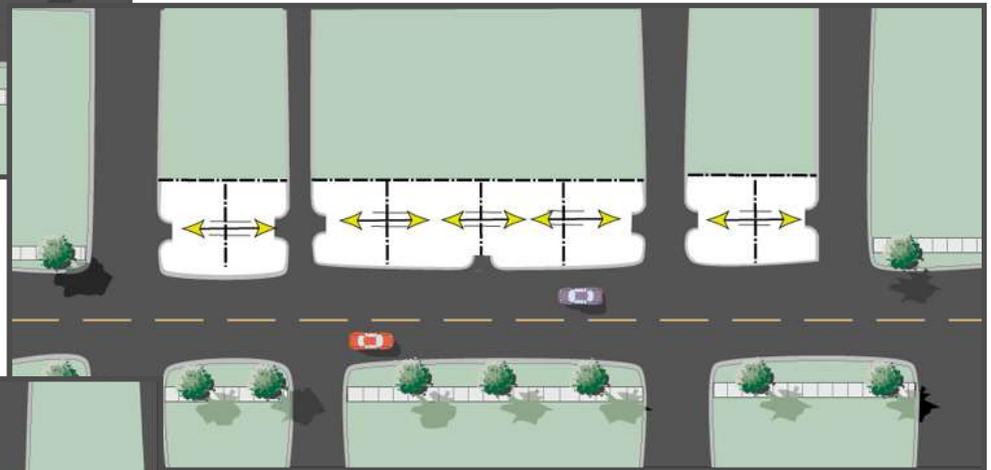


Solutions Toolbox – Access Management

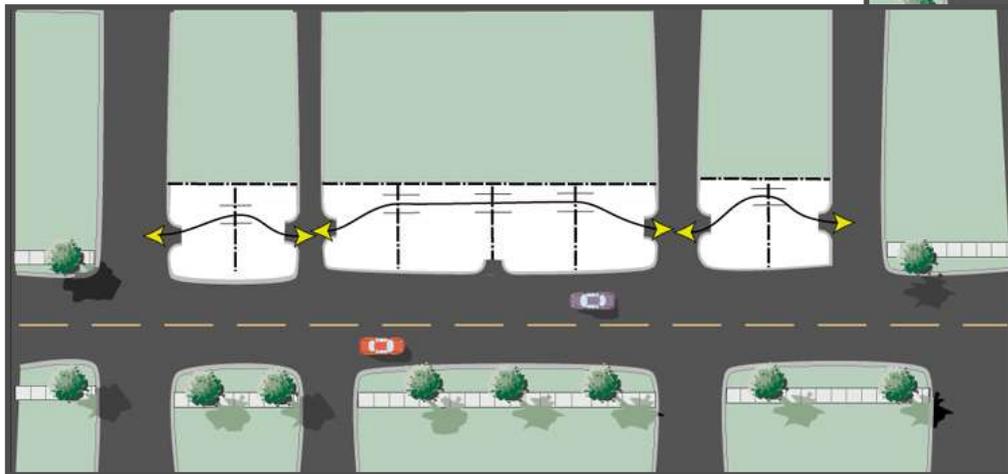


Shared Driveways

Cross Access Easements

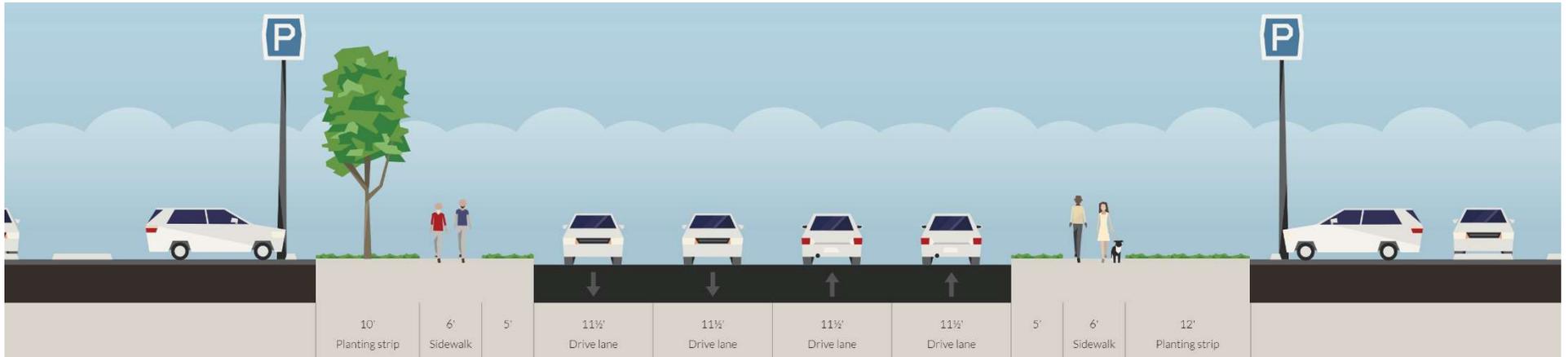


Access Roads



Solutions Toolbox – Access Management

Existing Roadway Cross Section



Alternative Roadway Cross Section



Solutions Toolbox - Signalization



- Signalization possible at East Main Street and Parkway Place
 - Approximately 500' between the existing signalized intersections

NEXT
STEPS

Moving Forward...



Concept Development
Public Workshop No. 2
Recommendations Report
Final Presentation



THANK
YOU

Sign-In Sheet

Workshop One

December 12, 2018

6:00 p.m. – 8:00 p.m.

Maloney High School – Cafeteria

Name	Organization	Email
Jasen Verchinski	resident	jverchinski@gmail.com
Fleurette & James Belote	resident	Lafleursept@gmail.com
LILLIAN V. RIVERA HICKS	RESIDENT	lvr65@cox.net
AJ Cortes	Batista Companies	aj.cortes@batista.co.com
Mike & Sheila Faulkner	resident	M.kesheila@att.net
Tom O'Malley	Resident	
DANUTA, Zolizlow	Resident	
Mohammed Bishrawi	DOT	
David Lovell	^{Business owner} Resident, Meriden City Council	dlovell@meridencr.gov
Doris Rita D'Angelo	128 Belvedere Drive	NONE - use library
Derek Schachter	Resident	derekschachter@gmail.com
Kevin Chesler	Resident	kevinchesler@gmail.com
John Guporian	Resident/Hunter's Ambulance	john.g@huntersamb.com
Michael Grove	Meriden Public Schools	Michael.grove@meridenk12.org

M E M O R A N D U M

DATE: December 13, 2018

RE: Meriden E. Main Street Public Outreach Meeting

A public outreach meeting was held at Maloney High School in Meriden, Connecticut between the hours of 6:00pm-8:00pm on Wednesday, December 12th, 2018 to discuss the future improvements to the quarter mile corridor.

Some concerns voiced by residents and organizations in attendance include:

- Speed
- Left turns on and out of side streets
- Students crossing midblock
- Bicyclists crossing bridge over highway
- Paddock WB turning left
- Long distance between crosswalks
- Ped Safety at driveways
- Connecting parkway outside of East Main Street
- Emergency access
- Delivery vehicles on Paddock to access industrial land to north
- Lots of queueing already on Paddock
 - Signal timing on Paddock

Some suggestions voiced by residents and organizations in attendance include:

- Blinking yellow lights
- Speed warning signs
- Enforcement
- Decrease lanes
- Education/Student crossing
- Signal at parkway (negative and positive feedback received)
- FY outside peaks
- RRFB
- HAWK
- PED 1st signage overhead
- Back access Dunkin' to Paddock
- Rumble strips?

**SAVE THE
DATE!**

**Wednesday, June 19th
6:00 pm**



East Main Street Access Study

You're Invited to the Project Presentation

Please join us at 6:00 p.m. to hear the findings of the East Main Street Access Study and offer your feedback. The study seeks to address traffic and safety concerns on East Main Street between Gravel Street and the I-91/Route 15 ramps. As project stakeholders and everyday users of this corridor, your input will be crucial to the review of improvement alternatives. We look forward to seeing you at the meeting.

**Meriden Public Library
Griffin Room
105 Miller Street
Meriden, CT 06450**

For more information please contact:

Emile Pierides, Associate City Engineer
epierides@meridentct.gov





East Main Street Access Study

Public Workshop No. 2

June 19, 2019

Team Introductions

- Study funded by South Central Regional Council of Governments (SCRCOG)
- Team
 - City of Meriden
 - Howard Weissberg, PE
 - Emile Pierides, PE
 - SCRCOG
 - Stephen Dudley
 - Fuss & O'Neill
 - Matthew Skelly, PE, PTOE
 - Katherine Patch, EIT

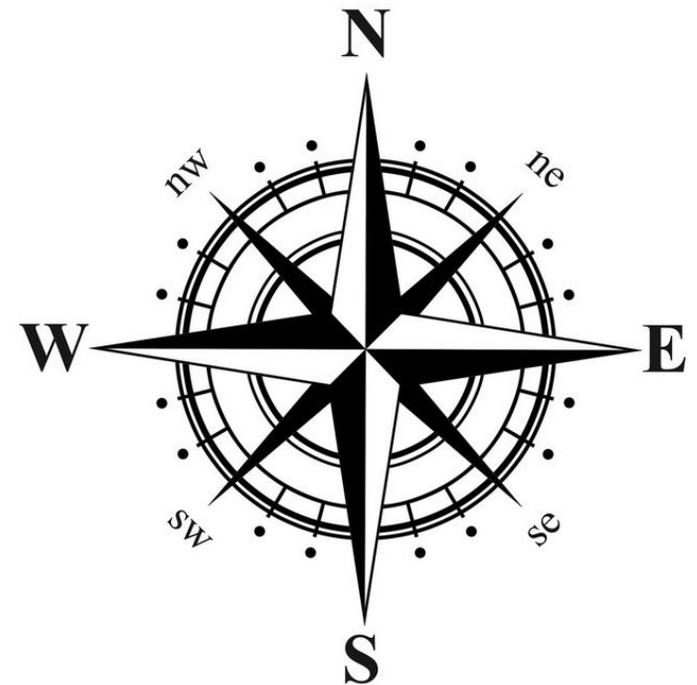


SCRCOG



Presentation Outline

- Review Study Limits and Background
- Review Potential Improvements
- Recap Workshop No. 1
- Concept – Development
- Stakeholder Interview Recap
- Concept – Revised
- Questions and Discussion



Project Limits



Project Background

- East Main Street is a four lane main thoroughway that connects I-91/Route 15 with downtown
- Average daily traffic (ADT) of approximately 25,500 vehicles
 - ADT of approximately 6200 vehicles on Gravel Road
 - ADT of approximately 5400 vehicles on Paddock Avenue
- This quarter-mile corridor averages 36 crashes per year, with a total of 111 crashes occurring in the last 3 years



REVIEW

How can East Main Street be Improved?

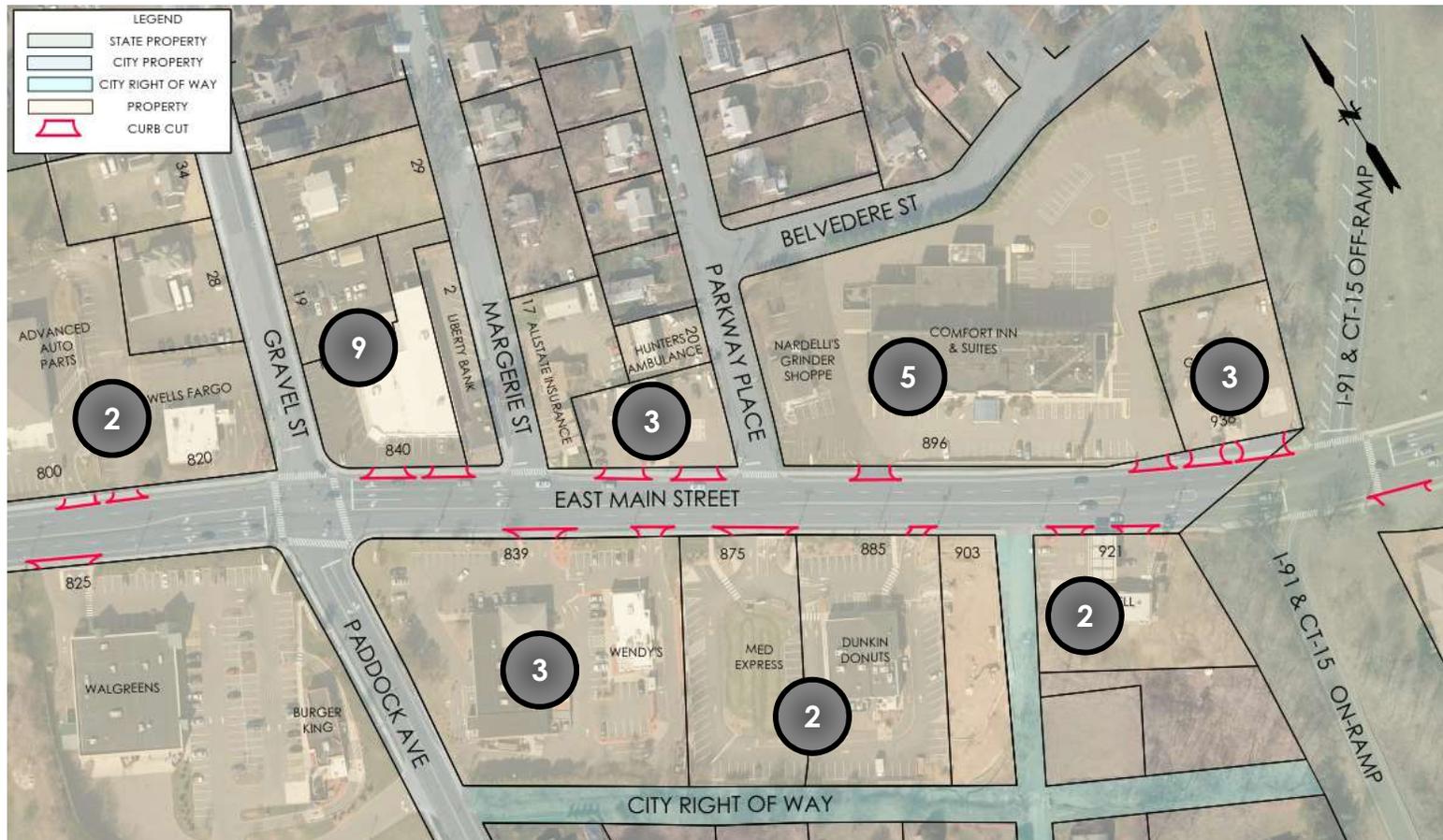
Review of Important Criteria

- Vehicular safety
- Pedestrian Safety
- Travel time
- Interior access between properties
- Exterior access in/out of the properties
- Mobility
- Impact on adjacent properties

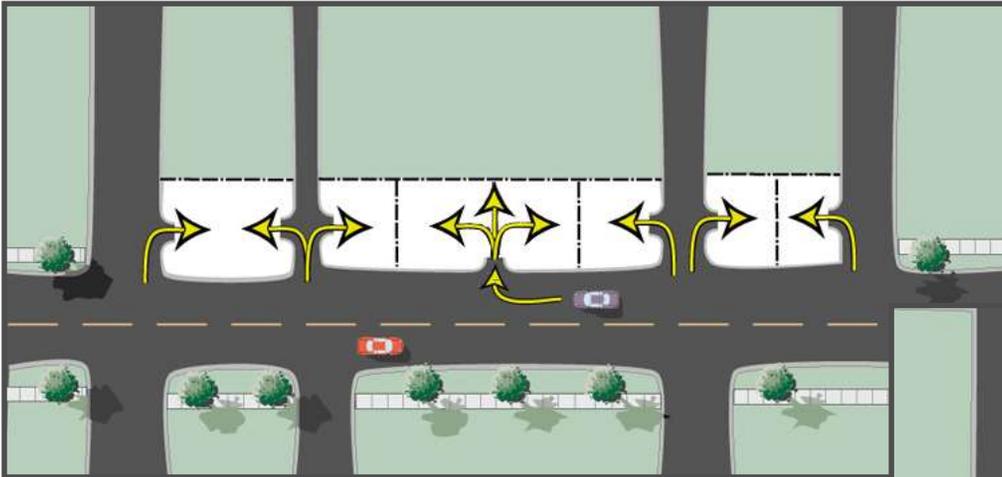


Review – Access Management

Goal: Provide safe and efficient access from private properties along a given roadway by minimizing the number and size of conflict points.”

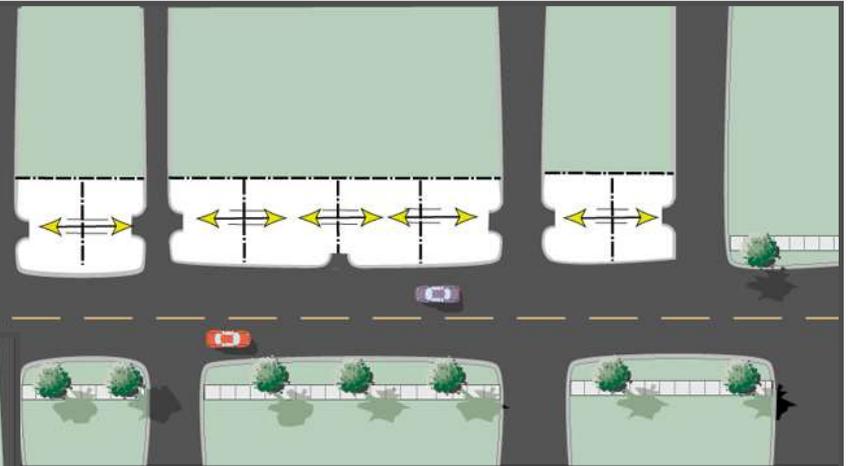


Review – Access Management

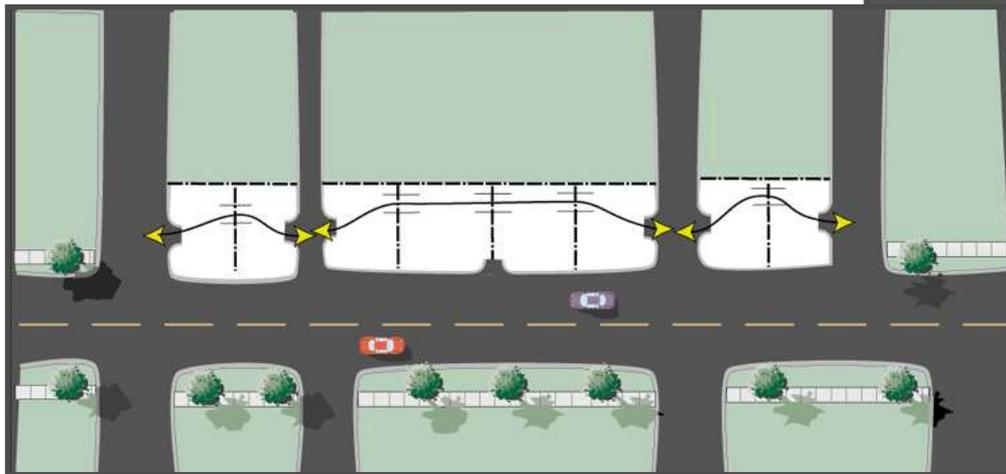


Shared Driveways

Cross Access Easements



Access Roads



COMMUNITY
FEEDBACK

December 12, 2018

Workshop No. 1 Recap

- Left Turns
- Pedestrian safety at driveways
- Speed
- Queueing on Paddock Ave
 - Especially from delivery trucks
- Midblock crossing
 - Long distances between crosswalks



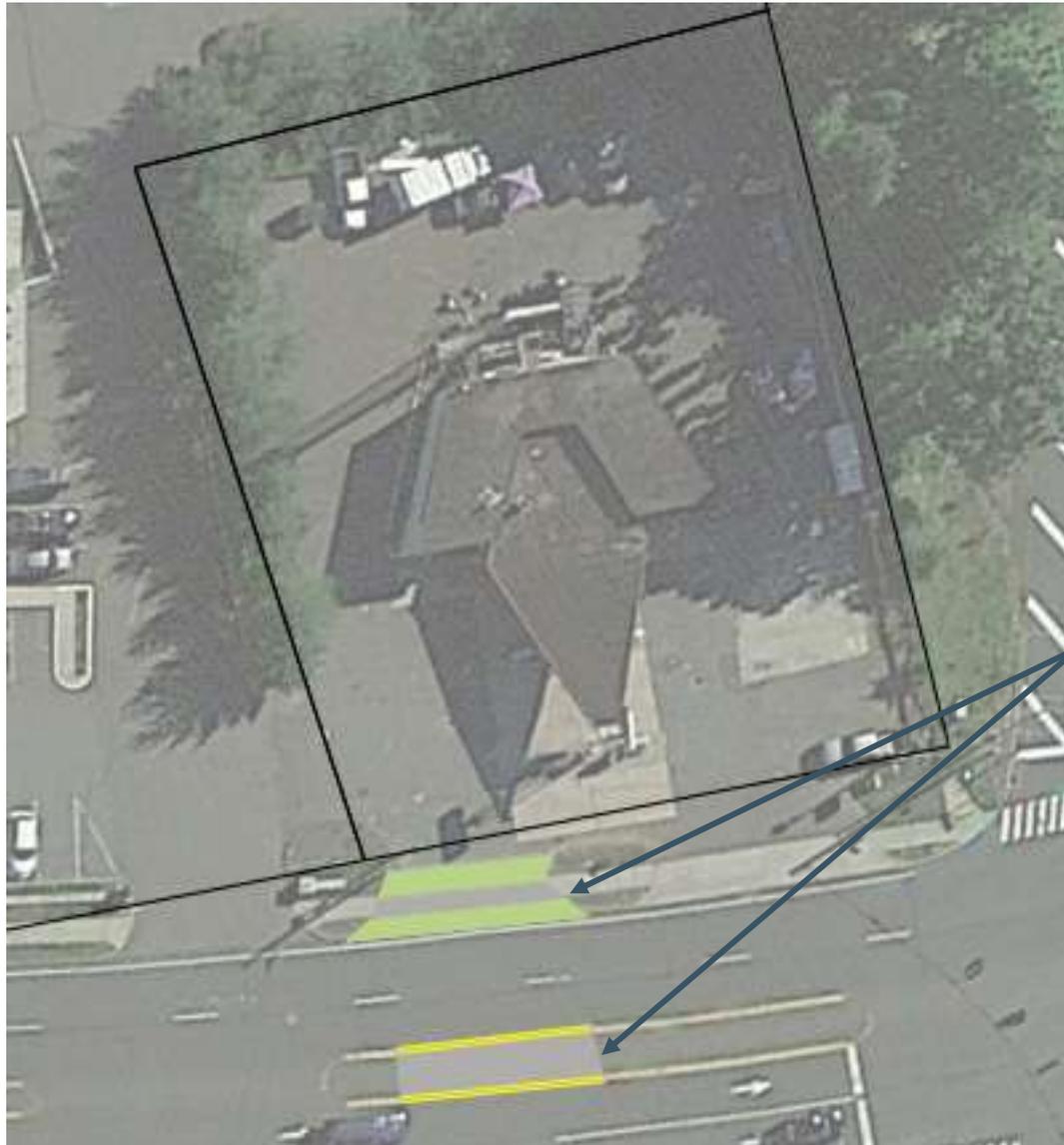
SINCE OUR LAST
WORKSHOP

Concept Development
Stakeholder Interviews
Public Workshop No. 2
Final Presentation
Final Report

Concept Development – Overview



Concept Development – Getty Gas Station



Close west driveway and close the double yellow center line



Concept Development – Comfort Inn & Suites



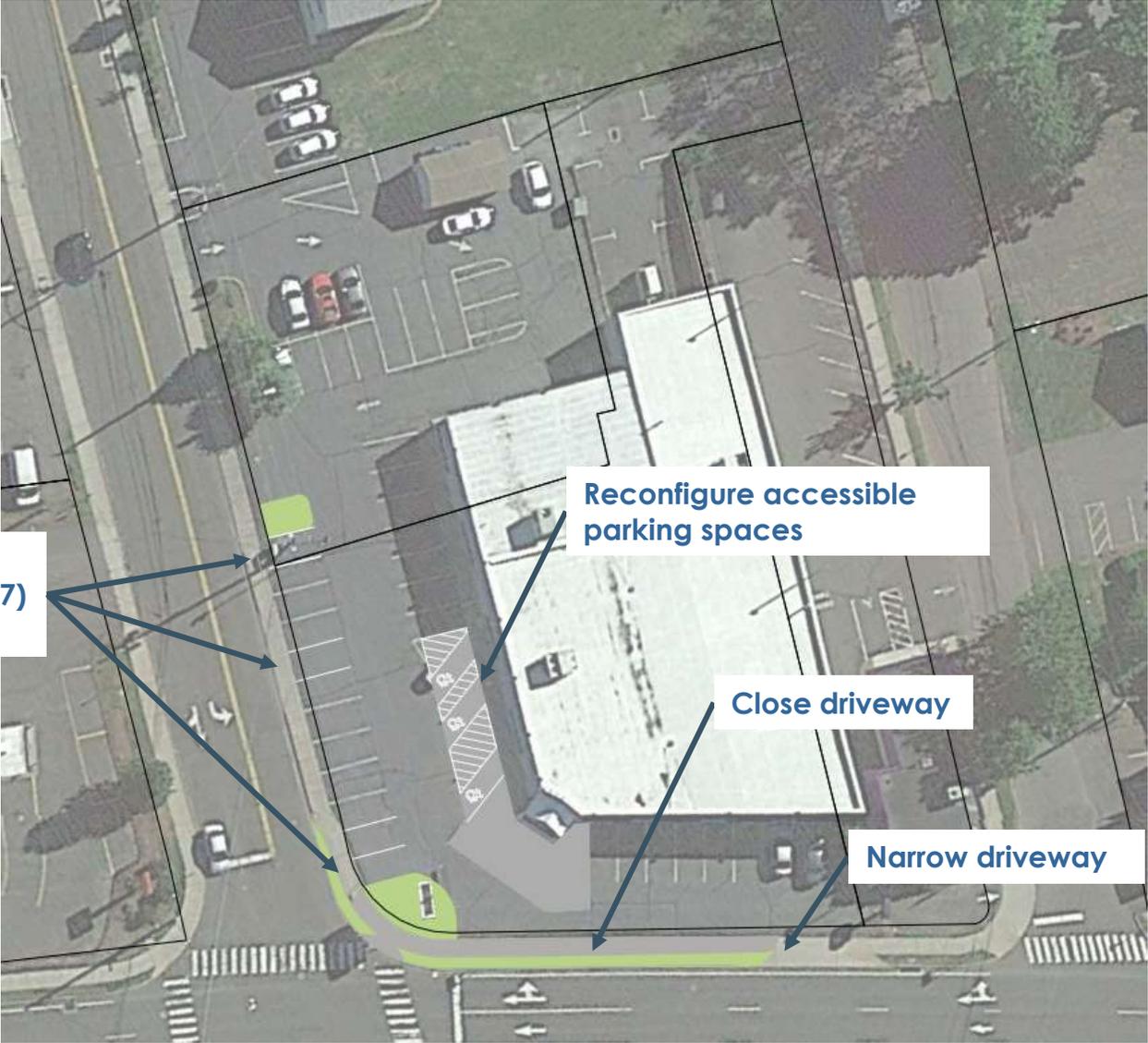
Concept Development – Hancock Pharmacy

Close driveways
and add seven (7)
parking spaces

Reconfigure accessible
parking spaces

Close driveway

Narrow driveway



Concept Development – South Side



Stakeholder Interviews

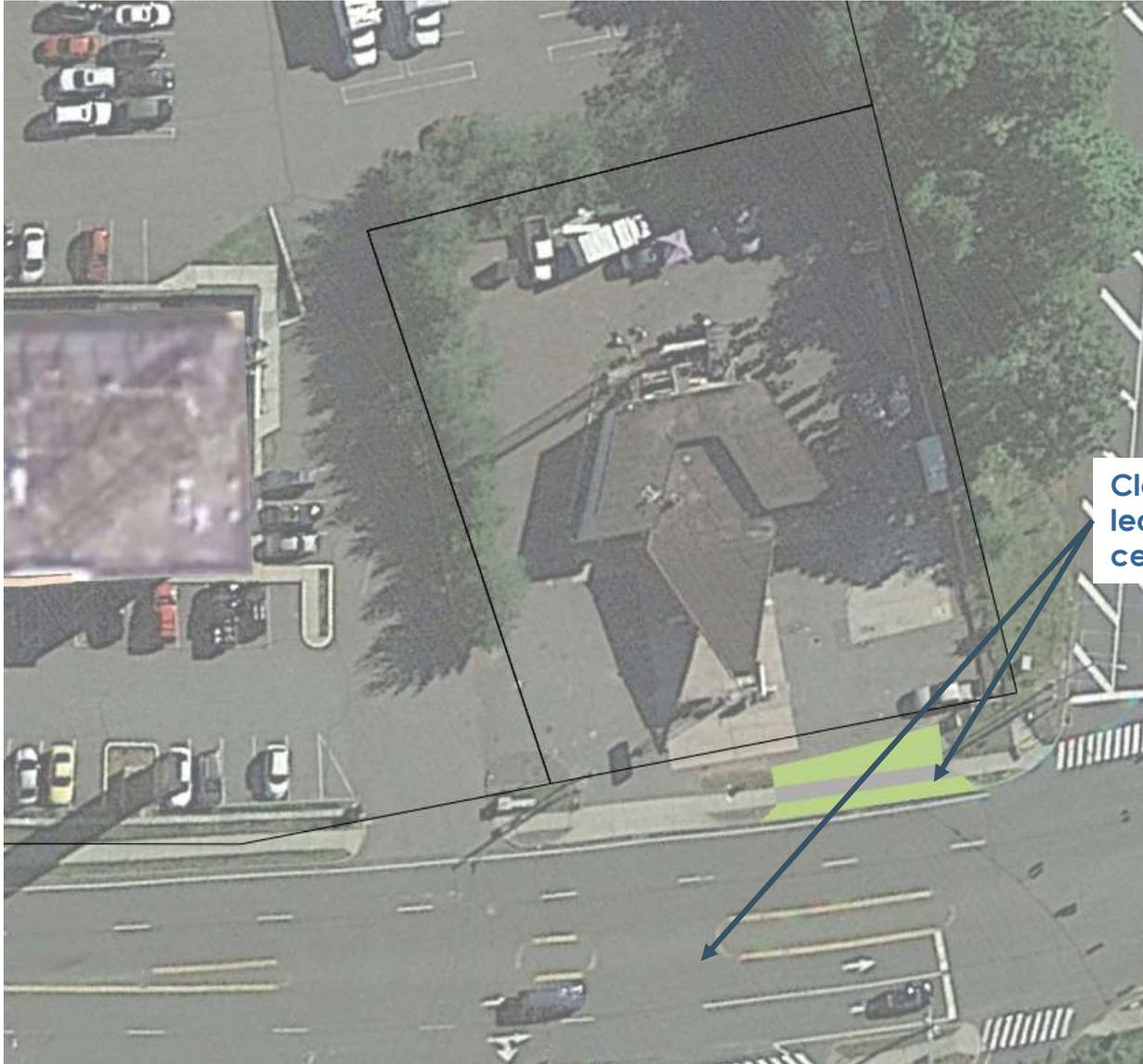
- The study team reached out to owners and business operators within the study area
- Takeaways
 - Rear access road could be supported
 - Concern about the left-turn restriction to exit the Dunkin Donuts property
 - The Gulf Station may be better served if the eastern driveway was narrowed, rather than the western driveway
 - Possibility of connecting Parkway Place and Margerie Street in the future



Concept Revised – Overview



Concept – Getty Gas Station



Close east driveway and leave the double yellow center line open



Concept – Comfort Inn & Suites



Concept – Paddock Avenue/CVS



Driveway to remain open

Shift rear access road north and reconfigure interior access behind CVS and Wendy's



Workshop No. 1 Recap

- Left Turns
- Pedestrian safety at driveways
- Speed
- Queueing on Paddock Ave
 - Especially from delivery trucks
- Midblock crossing
 - Long distances between crosswalks



Questions & Discussion





Thank you!

MEMORANDUM

DATE: June 19, 2019

RE: Meriden E. Main Street Public Outreach Meeting No. 2

A public outreach meeting was held at Meriden Public Library in Meriden, Connecticut between the hours of 6:00pm-7:00pm on Wednesday, June 19, 2019 to discuss the future improvements to the East Main Street study area.

After the presentation, the following topics were brought up by the attendees to be addressed by the project team:

- Opposing left turns at Parkway Place and Dunkin Donuts driveway
- Paddock queueing past the first residential driveway
 - New timings are being put in place, so queueing should subside
 - Concern about disrupting stream flow
- Rear access (Edson Street) used to be proposed to connect Paddock Avenue to Hart Avenue for delivering vehicles
 - This is not feasible right not because of hydrology & cost
 - Jerome Avenue – keep it residential
 - Engineering decision we have to evaluate
 - Jerome residents don't want through traffic (recap from Workshop No. 1)
 - Review Wilson Avenue one-way reasoning
- Closing Hart Avenue – old CL&P is commercially zoned and should have “Commercial Access” to East Main Street via Hart Avenue
- Paddock Avenue is residential collector; if residents could travel Paddock Avenue to Edson Street to Hart Avenue and back again, then there would be no need for them to be on East Main Street
- 18 wheelers at interchange – to be addressed with CTDOT highway reconfiguration in the next few years
 - City is working with DOT on this and it is going well
- East Main Street is City owned and maintained, therefore City engineering/ planning manages access along the roadway
- Connect Wendy's / DD parking lots further north at the front of the properties
 - Not ideal because of grade change and mismatched existing drive aisles
- Driving too Fast
- Parking – left turn from East Main Street onto Parkway Place conflict with new Nardelli's driveway
 - Minimal volumes on both movements therefore not a major safety concern
- High school parents pickup at dead end of Parkway

- City to reach out to school
 - Gravel Street is very congested when school gets out
- Comfort Inn north driveway probably won't be used as much with new driveway accessing Parkway Place
- Parking and signage can be reconfigured at the rear of the Comfort Inn parcel