

Traffic Impact Study

Proposed iPark Expansion

761 Main Avenue

City of Norwalk/Town of Wilton, CT

PREPARED FOR:

iPark II Norwalk, LLC

485 West Putnam Avenue
Greenwich, CT

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1.0 EXECUTIVE SUMMARY

This report has been prepared by Kimley-Horn and Associates, Inc. to document the potential traffic impacts associated with a proposed expansion to the iPark development at 761 Main Avenue (US Route 7) on the border of the City of Norwalk and the Town of Wilton. (the "Project"). This traffic impact study evaluated existing and future traffic conditions surrounding the site both with and without the Project. The anticipated year of completion of this development is 2022, although to be conservative, this report also provides an evaluation of 2025 traffic volume conditions as requested by the City of Norwalk.

1.1 Project Description

The Project site is situated on the west side of US Route 7 (Main Avenue), south of Kent Road, and to the east of the Metro-North Railroad tracks. The iPark property is currently developed with 371,694 square feet (sf) of mixed-uses, consisting of 250,000 sf of office space, 60,779 sf of warehouse space, and 60,915 sf of health club space. Access to the site is currently provided via one full-access, signalized driveway on Main Avenue, across from West Rocks Road, and one full-access, stop-controlled driveway on Kent Road.

1.2 Study Methodology

It is currently proposed to construct a 132-unit mid-rise residential building (164,750 gsf with approximately 117,000 sf enclosed) on the site. Construction of a 120-room hotel (80,000 sf) on the Wilton portion of the property is also contemplated in the near future, which would result in an expansion of 244,750 sf GFA and bring the total iPark development to 616,444 sf GFA. This traffic study conservatively evaluates the potential traffic impacts associated with both buildings.

The intersections to be evaluated were determined based on a review of the existing access to the iPark development, the expected travel routes to the site and the trips generated by the Project. The intersections identified for analysis are listed below.

- Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road
- Danbury Road (US Route 7) & Kent Road
- Kent Road and Cannondale Road (Site Driveway)
- Grist Mill Road & Main Avenue/CT DMV Driveway

Intersections beyond those listed above were determined not to be significantly impacted by the Project.

This study evaluates 2019 ("Existing") conditions and future background and combined conditions for the estimated completion date of the project, 2022. Existing and future volume information were developed based on traffic counts conducted in September 2019. In addition, as directed by the City of Norwalk, this study was also prepared following the methodology used in the February 2021 Traffic Impact Study¹ for the North 7 Master Plan development, which evaluated future conditions based on 2025 volumes developed

¹ North 7 Master Plan Traffic Impact Study, prepared by Tighe & Bond, dated February 2021.

by the Connecticut Department of Transportation (CTDOT). Background traffic volume information for the weekday AM and PM peak hours for the year 2025 was provided by CTDOT.

Consequently, the 2025 analyses performed for this study provide a very conservative evaluation of future traffic operating conditions. The Main Avenue iPark driveway volumes are 42% higher than volumes counted in September 2019 during the AM peak hour and are 29% higher during the PM peak hour. Further, the remaining traffic volumes at the iPark main driveway intersection are 24% and 16% higher than those counted in September 2019 during the AM and PM peak hours, respectively.

The 2019 existing volumes were grown to the year 2022 and traffic from four proposed vicinity developments² were added. The CTDOT 2025 background volumes at the study intersections, which were prepared contemplating future increases in traffic associated with prospective improvements to US Route 7 south of the site, were adjusted (consistent with the North 7 traffic study, as directed by the City) to add traffic from the North 7 Master Plan mixed-use development and from the proposed expansion to Grist Mill Village.

The trips anticipated to be generated by the Project during the peak hours were forecast based on the Institute of Transportation Engineers' (ITE) publication, *Trip Generation Manual*, 10th Edition. It is estimated that the Project will add 95 new vehicular trips to the surrounding roadways during the weekday AM peak hour and 96 new trips during the PM peak hour. Conservatively, no credit was taken for any trips that might occur between the new residential and hotel uses and the existing uses on the site.

Project trips were distributed to the roadways and added to the 2022 and 2025 Background volumes to represent future 2022 and 2025 conditions with the Project ("Combined").

CTDOT is evaluating improvements to US Route 7 in the study area to address existing operational concerns and future growth in the corridor. Improvements contemplated at the intersections of Main Avenue with West Rocks Road and Main Avenue with Grist Mill Road have been included in the 2025 Background and Combined analyses in this report.

Synchro analyses were conducted for the 2019 Existing volume condition and the 2022 and 2025 Background and Combined traffic volume conditions to identify the level of service (LOS)³ and delays for each intersection and lane movement. Potential impacts associated with the Project were determined by comparing the overall intersection LOS results for the Background condition to the overall intersection LOS results for the Combined condition, in accordance with the City of Norwalk's *Traffic Impact and Access Guidelines* ("TIAS", Section 4.5).

² North 7 Master Plan, Grist Mill Village/Grist Mill Village expansion, Innovation Center and Wilton Corporate Park.

³ Traffic operating conditions or LOS are graded on an "A" to "F" scale, with LOS "A" representing the best conditions and LOS "F" representing the worst conditions.

1.3 Findings

It is estimated that the Project will add 95 new vehicular trips to the surrounding roadways during the weekday AM peak hour and 96 new trips during the PM peak hour. Conservatively, no credit was taken for any trips that might occur between the new residential and hotel uses and the existing uses on the site.

Compared to the 2022 Background volumes, the 2022 Combined volumes represent only a 1.5 percent increase in trips at the four study locations. Similarly, the 2025 Combined volumes represent only a 1.4 percent increase in trips when compared to the 2025 Background volumes. The Project is anticipated to add up to 77 trips at the iPark driveway intersection with Main Avenue (US Route 7) and up to 48 trips at the other study locations. Further, the project is projected to add no more than 30 trips to any left-turn movement. These values are lower than those usually prescribed by the Connecticut Office of the State Traffic Administration "OSTA" to require detailed intersection analyses.

The results of the Synchro analysis at each study intersection are described below for the 2019 Existing condition, 2022 Background conditions and 2022 Combined condition. A summary of comparisons between the 2025 Background and Combined conditions is also provided.

Existing Conditions

During the AM peak hour, all study intersections operate acceptably, at overall LOS "C" or better and all individual movements operate at LOS "D" or better. During the PM peak hour, overall LOS "E" is experienced at two intersections, the Main Avenue intersections with West Rocks Road/iPark Driveway and with Grist Mill Road/DMV driveway. At these locations, one or more movements operate at "F" levels of service. The Danbury Road intersection with Kent Road and the Kent Road intersection with iPark Driveway both operate at acceptable levels.

2022 Background Conditions

When compared to Existing conditions, delays will increase in the future without the proposed Project (but with forecast increases in existing traffic volumes and vicinity development volumes) and, at the Main Avenue intersection with West Rocks Road/iPark driveway, the overall LOS will degrade from LOS "C" under Existing conditions to LOS "D" in the AM hour and from LOS "E" to LOS "F" in the PM peak hour. The overall intersection LOS at the other three study intersections will remain the same as existing levels.

2022 Combined Conditions

In the future with the proposed Project, compared to 2022 Background conditions, the Main Avenue intersection with West Rocks Road/iPark Driveway will see significant increases in delay during the AM peak hour on the Main Avenue northbound and southbound through movements, resulting in the overall LOS dropping from "D" to "E". The increased delays will also result in the southbound through movement degrading from LOS "D" under Background conditions to LOS "F" under Combined conditions.

At the Main Avenue intersection with Grist Mill Road, compared to Background conditions, a 1.4 second increase in delay will trigger a threshold LOS change for the overall intersection from LOS “C” to LOS “D” in the AM peak hour. All movements during both peak hours and the overall intersection LOS during the PM peak hour will remain at Background levels.

At the Danbury Road intersection with Kent Road, a 0.7 second increase in delay will trigger a threshold LOS change for the overall intersection from LOS “B” to LOS “C” in the PM peak hour. All movements during both peak hours and the overall intersection LOS during the AM peak hour will remain at Background levels.

All movements at the Kent Road intersection with the iPark Driveway will continue to operate acceptably.

Proposed Improvements – 2022

The additional Project traffic will result in a degradation in levels of service for the 2022 Combined condition at the Main Avenue intersection with West Rocks Road and the iPark driveway. The TIAS guidelines require mitigation at intersections where a project increases volumes by more than 5 percent **and** where levels of service drop from Background LOS “D” to either “E” or “F” under Combined conditions. The subject Project increases traffic at the intersection by only 1.9 percent, therefore, mitigation per the TIAS guidelines is not required. Nevertheless, it is recommended that signal timing modifications be implemented to improve traffic operations which will in turn restore intersection operations to 2022 Background levels in the AM peak hour and will improve operations in the PM peak hour from LOS “F” under Background conditions to LOS “D” under Combined conditions with the signal timing modifications.

2025 Background Conditions

In the future under 2025 Background conditions (with CTDOT proposed roadway improvements, without the proposed Project, but with an average 23% increase over existing traffic volumes), the Main Avenue intersection with West Rocks Road/iPark driveway will operate at an overall LOS “D” during the AM peak hour and at LOS “E” during the PM peak hour. Both the Danbury Road intersection with Kent Road and the Main Avenue intersection with Grist Mill Road/DMV Driveway will operate at LOS “C” during both peak hours. Exiting movements at the unsignalized iPark driveway intersection with Kent Road will operate at LOS “B” during both peak hours.

2025 Combined Conditions

In the future with the proposed Project, compared to 2025 Background conditions, all study intersections will operate at 2025 Background levels. All individual movements will operate at 2025 Background levels with two exceptions; the iPark eastbound approach at the intersection with Main Avenue will see the LOS change from “D” under Background conditions to “E” under Combined conditions during the AM peak hour. At the Danbury Road intersection with Kent Road, a 1.6 second increase in delay will trigger a threshold LOS change on the northbound left-turn from LOS “B” to LOS “C.”

A queuing analysis indicates that the Project will have an insignificant impact on queuing at the study intersections with increases attributable to the Project resulting in generally less than 1 additional vehicle on movements that are anticipated to exceed the available storage under Background and Combined conditions.

1.4 Conclusions

The data presented in this study indicate that the proposed apartments and contemplated hotel will not have a significant adverse impact on 2022 or 2025 traffic operations in the study area. The 2022 traffic volumes provide an assessment of traffic conditions with existing roadway geometrics in the year when the Project is anticipated to be completed. The 2025 traffic volumes used in this study provide a conservative analysis of future traffic operating conditions as the 2025 Background volumes represent up to a 23 percent increase in traffic volumes compared to the 2019 existing volumes.

The Project will add up to 96 peak hour trips which will be dispersed to the area roadways, and which will constitute an increase of only 1.5 percent to the overall traffic volumes. Under future 2022 Combined conditions, with the recommended signal timing change at the Main Avenue intersection with West Rocks Road and the iPark driveway, the analyses indicate that Project impacts will be minimized, and improved traffic operating conditions will occur on Main Avenue. Under 2025 conditions with the contemplated improvements by CTDOT, all movements will operate at Level-of-Service "E" or better conditions, the project will not cause any changes in Level-of-Service to any of the movements along Main Avenue, Grist Mill Road or Kent Avenue, and that the largest increases in delays will be confined to the iPark exiting driveway movements. The Applicant will be implementing on-site improvements to better accommodate traffic internally to the site.

Based on these findings, it is concluded that the increase in traffic volumes associated with the proposed Project will not have a significant adverse impact on traffic operations at the study intersections or on the area roadways.

2.0 INTRODUCTION

This report has been prepared by Kimley-Horn and Associates, Inc. to document the potential traffic impacts associated with a proposed expansion to the iPark development at 761 Main Avenue (US Route 7) on the border of the City of Norwalk and the Town of Wilton. (the “Project”). This study evaluates existing conditions, future traffic conditions without the Project (“Background”) and with the Project (“Combined”). The Background condition is the benchmark against which the potential impacts of the proposed Project are compared. The anticipated year of completion of this development is 2022, although to be conservative, this report also provides an evaluation of 2025 traffic volume conditions, consistent with the recommendations of the City of Norwalk.

The Project site is situated on the west side of Main Avenue (US Route 7), south of Kent Road, and to the east of the Metro-North Railroad tracks (see **Figure 1** for site location). The iPark property is currently developed with 371,694 square feet (sf) of mixed-uses, consisting of 250,000 sf of office space, 60,779 sf of warehouse space, and 60,915 sf of health club space. Access to the site is currently provided via one full-access, signalized driveway on Main Avenue, across from West Rocks Road, and one full-access, stop-controlled driveway on Kent Road.

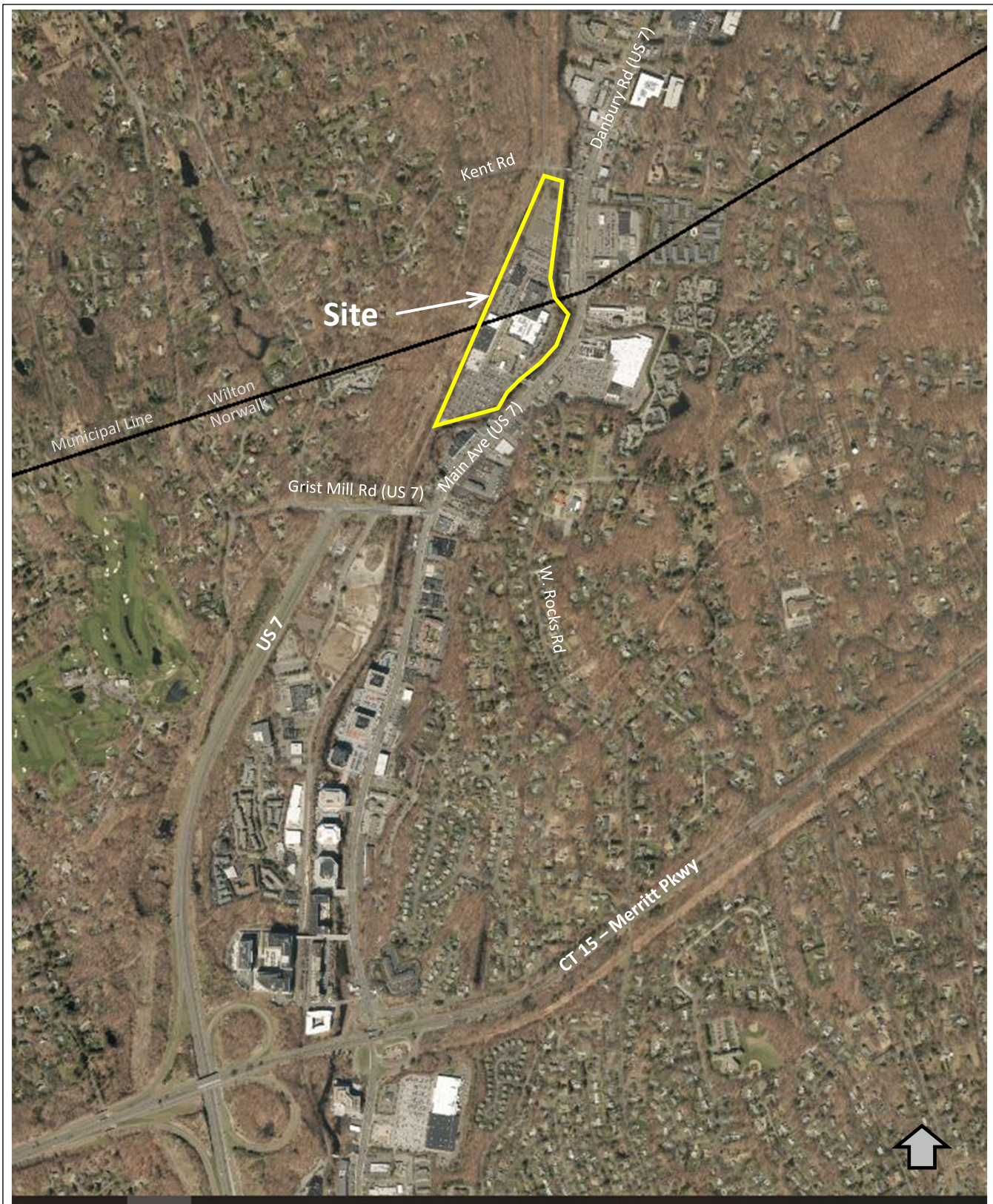
The Applicant wishes to construct a 132-unit mid-rise residential building (164,750 gsf with approximately 117,000 sf enclosed) on the site. Construction of a 120-room hotel (80,000 sf) on the Wilton portion of the property is also contemplated in the near future, which would result in an expansion of 244,750 sf GFA and bring the total iPark development to 616,444 sf GFA. The existing driveways will remain unchanged.

The following four study intersections were analyzed in this report:

- Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road (signalized)
- Danbury Road (US Route 7) & Kent Road (signalized)
- Kent Road and Cannondale Road (Site Driveway) (unsignalized)
- Main Avenue and Grist Mill Road/CTDMV Driveway (signalized)

The selection of these intersections was based on a review of the existing access to the iPark development, the expected travel routes to the site and the trips generated by the Project. Intersections beyond those listed above were determined not to be significantly impacted by the Project⁴.

⁴ Added traffic determined to be 35% or less of OSTA volumes described as significantly affecting intersections - 100 vph at an intersection or 50 vph on a left turn.



Kimley»Horn

**i-Park
Norwalk/Wilton, CT**

Project Location

FIGURE

1

3.0 EXISTING CONDITIONS

3.1 Roadway Network

Evaluation of the traffic impacts associated with the proposed Project requires a thorough understanding of the existing roadway system in the vicinity of the site. The existing conditions observed in the study area include an inventory of the roadways, speed limits, intersection geometry, traffic control devices, pavement condition and markings. This information is provided below.

US Route 7 (Main Avenue/Danbury Road) is known as Main Avenue in the City of Norwalk and as Danbury Road in the Town of Wilton and is a north-south State highway which begins in the south at Interstate Route 95/US Route 1 in Norwalk and travels in a northerly direction through the State. Within the study area, US Route 7 is classified as an urban “principal arterial - other” and provides two travel lanes per direction with additional turning lanes provided at key intersections. Sidewalks are provided within the study area along the east side of the roadway to the north of West Rocks Road as well as at the Grist Mill Road intersection. Sidewalks are provided on the west side of Main Avenue along the frontage of the Center 7 shopping center. US Route 7 is under the jurisdiction of the Connecticut State Department of Transportation (CTDOT). The posted speed limit in the study area is 35 miles per hour (mph). CTDOT is evaluating improvements to US Route 7 in the study area (see Section 4.2 for discussion of US Route 7 improvements).

Kent Road is a generally east to west oriented local road which runs from its intersection with US Routes 7 (Danbury Road) in the east to Old Belden Hill Road in the west. The Kent Road has one travel lane per direction and does not have shoulders or sidewalks. The posted speed limit is 25 mph and the roadway is under the jurisdiction of the Town of Wilton.

West Rocks Road is a north-south oriented roadway that runs from its intersection with Main Avenue (US Route 7) in the north to Ward Street in the south where it continues to the south as France Street in the City of Norwalk. West Rocks Road has a posted speed limit of 30 mph and is classified as a minor arterial. Within the study area, West Rocks Road provides one travel lane in each direction with sidewalks provided on the east side of the roadway between Bayne Street and Main Avenue.

Grist Mill Road is an east to west oriented road of approximately 0.33 miles in length, which runs from its intersection with Belden Hill Road/North Seir Hill Road in the west to Main Avenue (US Route 7/State Route 719) in the east. Grist Mill Road generally provides one travel lane per direction to the west of the US Route 7 expressway and two travel lanes per direction to the east of US Route 7 expressway. Additional turn lanes are provided at the signalized intersections with US Route 7 expressway, Glover Avenue and Main Avenue. Grist Mill Road is classified as a minor arterial to the west of the US Route 7 expressway and as an “principal arterial – other” to the east of the US Route

7 expressway. Grist Mill Road has a posted speed limit of 25 mph. There are no sidewalks or crosswalks provided along Grist Mill Road.

3.2 Description of Study Intersections

Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road – The iPark Site Driveway forms the eastbound approach and West Rocks Road forms the westbound approach to this four-legged, signalized intersection with Main Avenue (US Route 7). Main Avenue northbound provides an exclusive left-turn lane (285' storage length), two through lanes and an exclusive right-turn lane (115' storage). Southbound Main Avenue provides an exclusive left-turn lane (335' storage), a through lane and a shared through/right-turn lane. The Site Driveway approach provides one lane permitting all movements. The West Rock Road approach provides an exclusive left-turn lane (125' storage length) and a shared through/right-turn lane. The intersection is controlled by a multi-phase traffic signal. Crosswalks are provided on the north and west legs of the intersection. Curb ramps are provided at each crosswalk terminus; however, the ramps are not ADA-compliant. CTDOT is evaluating improvements to West Rocks Road at this intersection (see Section 4.2 for discussion of improvements).

Danbury Road (US Route 7) & Kent Road – Kent Road forms the eastbound approach to this three-legged, signalized intersection with Danbury Road (US Route 7) and provides one shared left-turn/right-turn lane. Danbury Road provides an exclusive left-turn lane and two through lanes northbound and a through lane and a shared through/right-turn lane southbound. The intersection is controlled by a three-phase traffic signal. There are no crosswalks provided at the intersection, however, pole-mounted pedestrian push buttons with a non-standard pedestrian display (three-section signal heads) are provided on the south leg. Field observations indicate that the pedestrian indication runs concurrent with the Kent Road green phase, and without pedestrian activation.

Kent Road & Site Driveway (Cannondale Way) – The iPark Site Driveway, also known as Cannondale Way, forms the northbound approach to this three-legged unsignalized intersection with Kent Road. Each approach provides one lane and the intersection is controlled by a Stop sign on the Site Driveway approach. There are no crosswalks provided at the intersection.

Main Avenue (US Route 7) & Grist Mill Road/CT DMV Driveway – Grist Mill Road forms the eastbound approach and the CT DMV driveway forms the westbound approach to this four-legged, signalized intersection with Main Avenue (US Route 7). Main Avenue northbound provides an exclusive left-turn lane and a shared through/right-turn lane. Southbound Main Avenue provides an exclusive left-turn lane (140' storage length), a through lane and an exclusive right-turn lane (>1000' storage length). The Grist Mill Road approach provides an exclusive left-turn lane, a shared left-turn/through lane and a right-turn lane (400' storage length). The DMV driveway approach provides a shared left-turn/through lane and a shared through/right-turn lane. The intersection is controlled by

a multi-phase traffic signal. A sidewalk is provided on the east side of Main Avenue. Crosswalks are not provided at this intersection; however, pedestrian buttons are provided on the north leg of the intersection. CTDOT is evaluating improvements to this intersection (see Section 4.2 for discussion of improvements).

3.3 *Multi-Modal Transportation*

Norwalk Transit District provides bus service in the study area. WHEELS Route 4 operates on weekdays with buses travelling a loop between the Norwalk Transit Hub on Burnell Boulevard and Wilton Center. Bus stops are provided within the iPark development. Hourly service is provided with a total of 13 daily buses. The Main Avenue Shuttle operates 7 days a week between Dock Road in South Norwalk and Walmart on Main Avenue opposite the iPark development. There are 3 buses that run on weekdays and Saturdays and 8 buses that run on Sundays.

The Danbury Branch of Metro-North Railroad's New Haven Line provides daily commuter rail service in the study area, with the nearest station the Merritt 7 station located on Glover Avenue. The Danbury Branch operates between Danbury and South Norwalk where connections can be made to the New Haven Line, which provides service between Grand Central Terminal in Manhattan and New Haven. On weekdays, between the Merritt 7 station and the South Norwalk station, there are 8 northbound and 8 southbound trains. On weekends and holidays, there are 6 trains in each direction.

Genesee and Wyoming, Inc.'s Providence and Worcester Railroad has trackage rights along the Danbury Branch for freight movement.

There are no bicycle routes in the study area. A proposed expansion of the Norwalk River Valley Trail will provide a north/south shared use path connecting Norwalk to Wilton. When completed, the 4.8 mile WilWalk section of the trail will extend from Broad Street in Norwalk to Wolfpit Road in Wilton. A one-mile section of the trail between Grist Mill Road and Kent Road is scheduled to be constructed to the west of iPark and the rail line in 2021.

Residents at the proposed iPark residential development will be able to use the existing bus routes to connect to other bus routes and to Metro North Railroad's South Norwalk station. It is not anticipated that the route capacity will be impacted as most of the current WHEELS Route 4 bus riders to the businesses within iPark are inbound in the morning and outbound in the evening, opposite of the residential riders who would be leaving home in the morning and arriving home in the evening.

3.4 Crash History and Safety Assessment

A crash history for the study intersections was obtained from the Connecticut Crash Data Repository for the most recent three-year period of typical traffic conditions⁵ (from January 1, 2017 through December 31, 2019). A review of the data indicates that a total of 48 crashes occurred in the study area. Injuries occurred in 7 of the crashes and there were no fatalities. None of the crashes involved pedestrians or bicyclists.

A total of 28 crashes occurred at the intersection of Main Avenue with West Rocks Road/iPark Site Driveway, 11 crashes occurred at the Main Avenue intersection with Grist Mill Road, and 9 crashes occurred at the Danbury Road intersection with Kent Road. There were no crashes at the Kent Road unsignalized intersection with the iPark Site Driveway. A review of the data indicated that the crashes were mostly rear-end collisions with a total of 29 crashes, which is consistent with the type of collisions that are typically experienced at signalized intersections. In the three-year period, a total of 14 rear end collisions occurred at the intersection of Main Avenue with West Rocks Road/iPark Site Driveway, 6 occurred at the Main Avenue intersection with Grist Mill Road, and the remaining 9 crashes occurred at the Danbury Road intersection with Kent Road. A detailed summary of the crash history is provided in the Appendix. The crash history is summarized below in **Table 1**.

Table 1 – Crash Summary 1/1/2017 to 12/31/2019						
Location	No. of Crashes	Injury	Rear End	Sideswipe	Angle	Other/ Unknown
Kent Rd & iPark Site Driveway	0	0	0	0	0	0
Danbury Road & Kent Rd	9	1	9	0	0	0
Main Ave & West Rocks Rd/iPark Site Driveway	28	3	14	5	2	7
Main Ave & Grist Mill Rd	11	3	6	2	3	0
TOTAL	48	7	29	7	5	7

3.5 Traffic Data Collection

To assess traffic conditions in the vicinity of the site and to identify the existing trip generations for the iPark development, intersection turning movement counts and Automatic Traffic Recorder (ATR) counts were conducted in September 2019. The intersection vehicular, pedestrian, and bicycle

⁵ Due to the potential impact of the Covid-19 pandemic on traffic volumes, crash data from 2020 was excluded from the crash analysis.

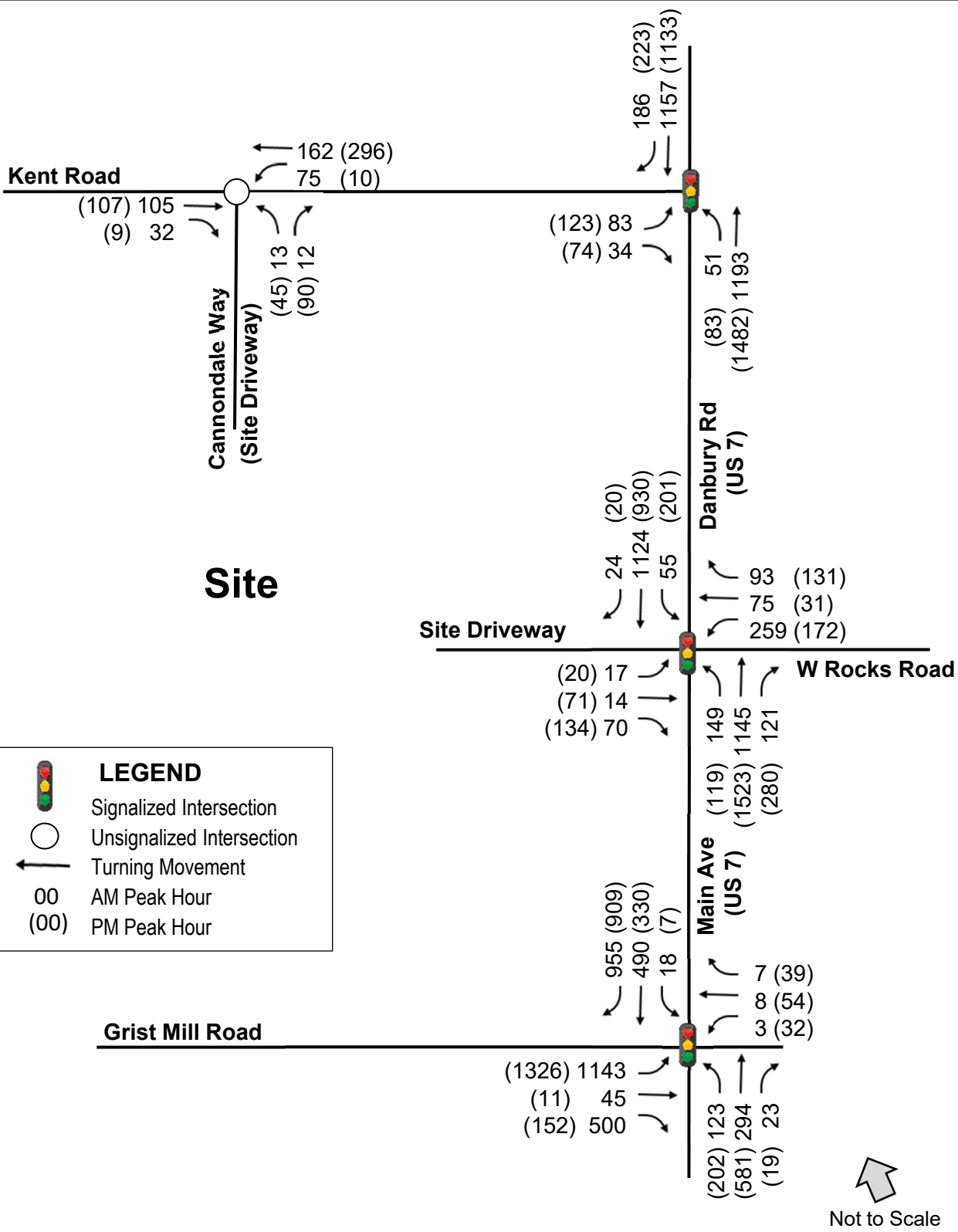
turning movement counts were recorded from 7:30 to 9:30 AM and 4:30 to 6:30 PM on Thursday September 12, 2019 at the intersections listed below.

- Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road
- Danbury Road (US Route 7) & Kent Road
- Kent Road and Cannondale Road (Site Driveway)
- Main Avenue (US Route 7) & Grist Mill Road/CT DMV Driveway

Based on the counts, the peak hours during the weekday were determined to be from 8:00 to 9:00 AM and 5:15 to 6:15 PM. The Existing (2019) volumes for the weekday AM and PM peak hours are provided on **Figure 2**. The ATR counts were conducted for a one-week period in September 2019 on Main Avenue, south of the site driveway, and on Kent Road, east of Cannondale Way. Based on the ATRs, the maximum total average daily traffic occurred on Thursday, September 12th.

Although the counts were conducted in 2019, they are considered representative of “normal” conditions as counts conducted after February 2020 would have significantly lower volumes due to the current COVID-19 pandemic.

Turning movement counts were not recorded on the weekend because the land uses on this site are mostly commercial office, which mainly generates high volumes of traffic during the week. The ATRs showed that the total average daily traffic for any given weekday was significantly higher (2,000+) than the total average daily traffic for any given Saturday or Sunday. The ATR data showed that the 85th percentile speed on Main Avenue was 36 mph northbound and 39 mph southbound. The 85th percentile speed on Kent Road was recorded as 27 mph eastbound and 28 mph westbound.



4.0 FUTURE BACKGROUND CONDITIONS

4.1 Background Traffic Volumes

The future Background volumes are the forecast traffic conditions that are expected to occur without the proposed development. This includes background traffic growth and traffic associated with any other planned / approved developments. The development of the 2022 and 2025 Background volumes are described below.

2022 Background Traffic Volumes

The Existing traffic volumes were increased to the 2022 design year by a growth factor of 0.6 percent per year (1.018 percent total increase), as recommended by the Connecticut Department of Transportation's (ConnDOT's) Transportation Planner, to take into account non-development-specific background traffic growth. The 2022 grown volumes for the AM and PM peak hours are shown on **Figure 3**.

ConnDOT was also contacted to determine if there are any proposed developments in the general vicinity of the subject site that would be completed within the timeframe of the Project and would add traffic to the study intersections. The following four (4) proposed developments were identified; three in the City of Norwalk and one in the Town of Wilton.

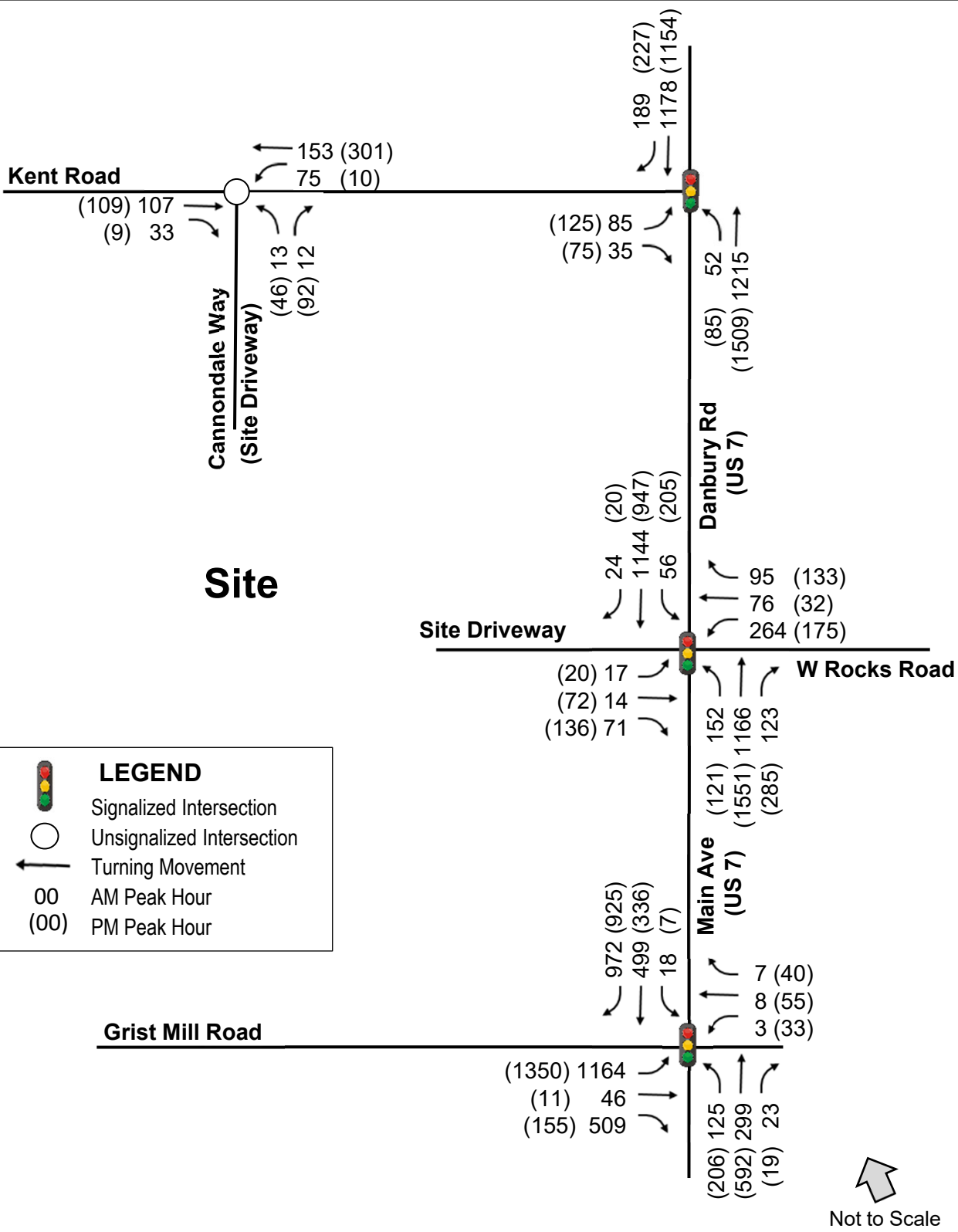
Norwalk

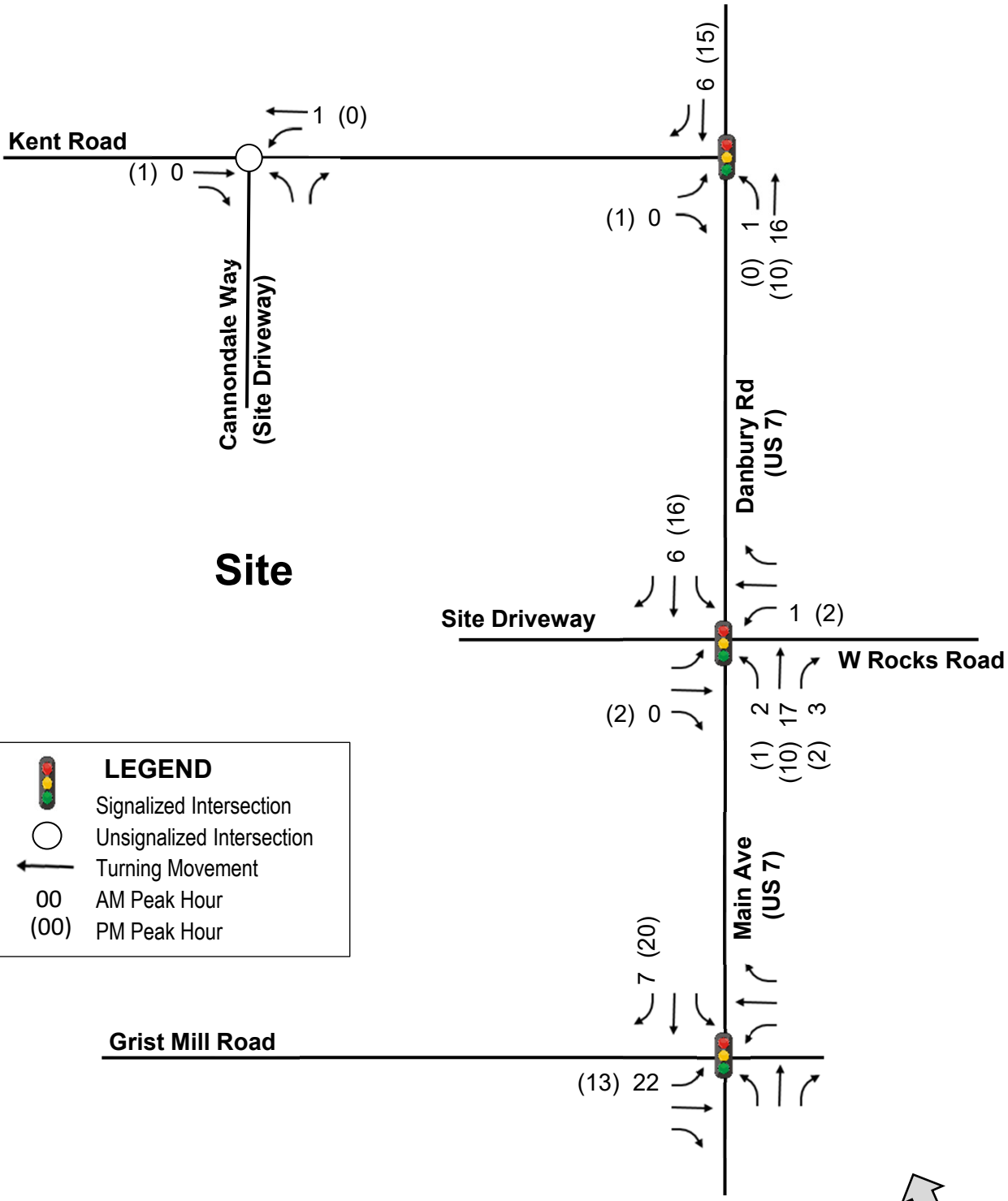
- Grist Mill Village and Grist Mill Village Expansion (mixed-use development)
- Building and Land Technology (BLT) North 7 (mixed-use development),
- Innovation Center in Norwalk (mixed-use development)

Wilton

- Wilton Corporate Park (garage expansion and land use conversion)

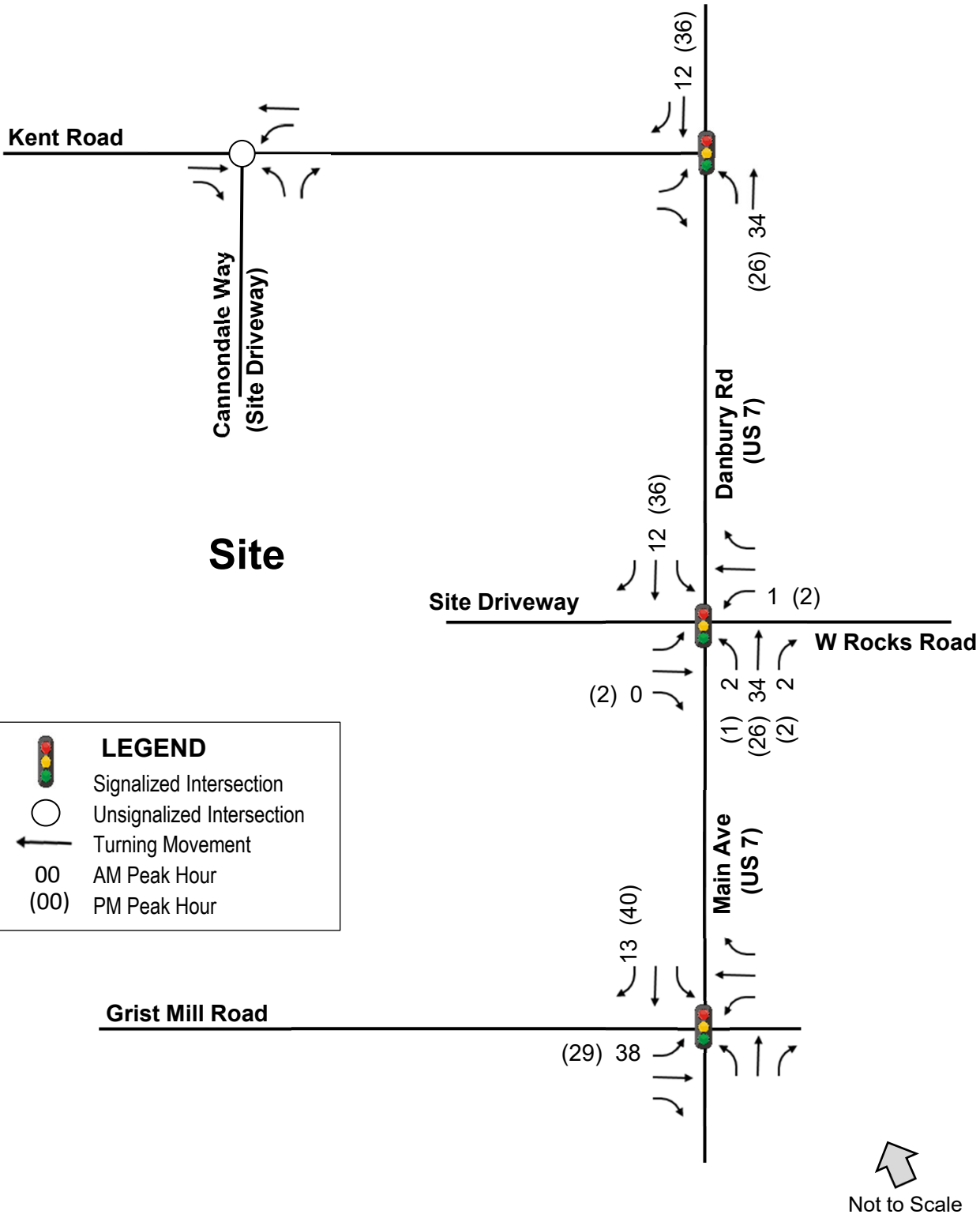
Traffic studies for the vicinity developments were obtained from OSTA and traffic generated by each development was distributed to the study intersections. The traffic volumes for each vicinity development are shown on **Figures 4 to 7**. The vicinity development traffic was then added to the grown traffic volumes, to represent the future 2022 conditions without the Project ("Background"). The future 2022 Background traffic volumes are shown on **Figure 8**.

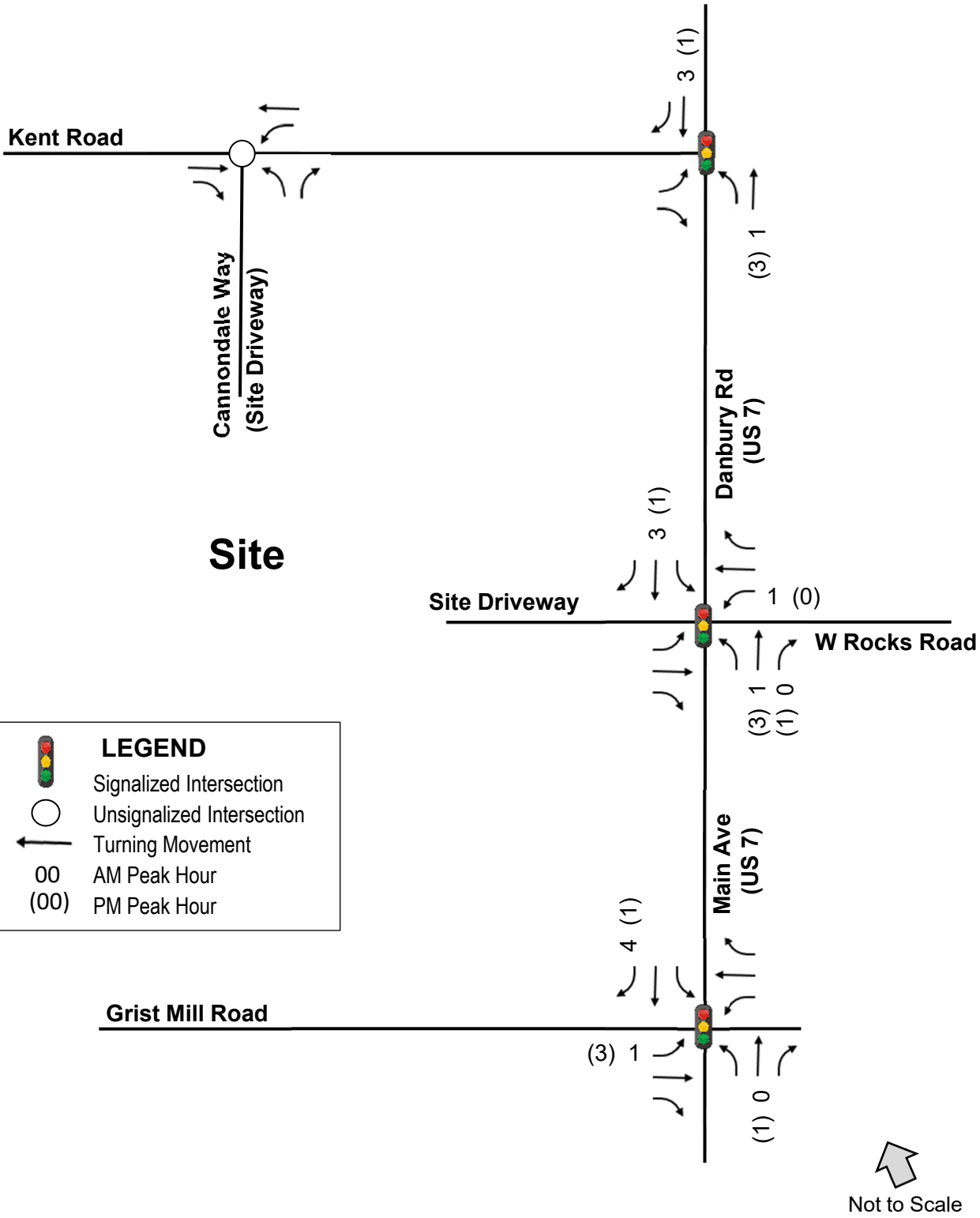


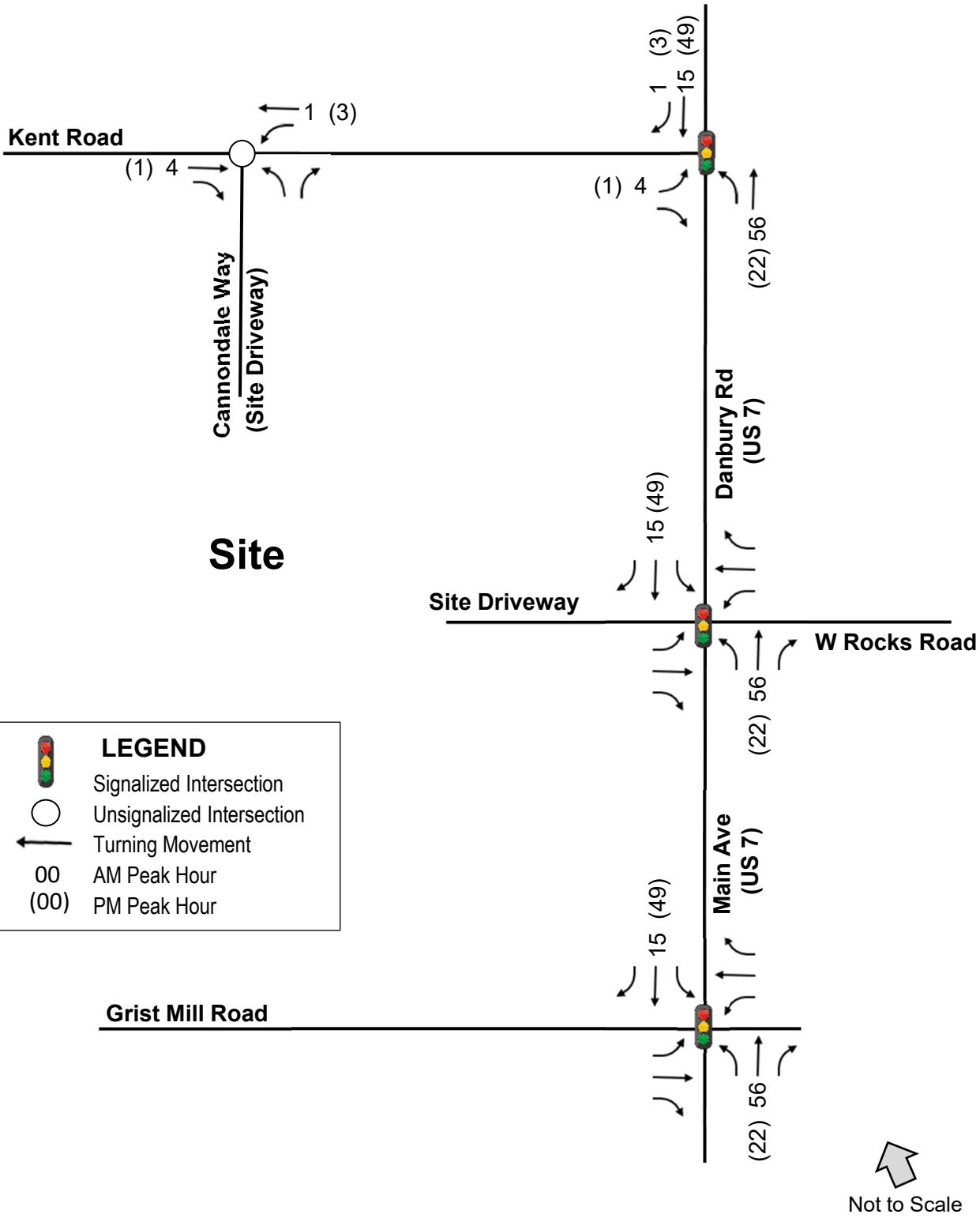


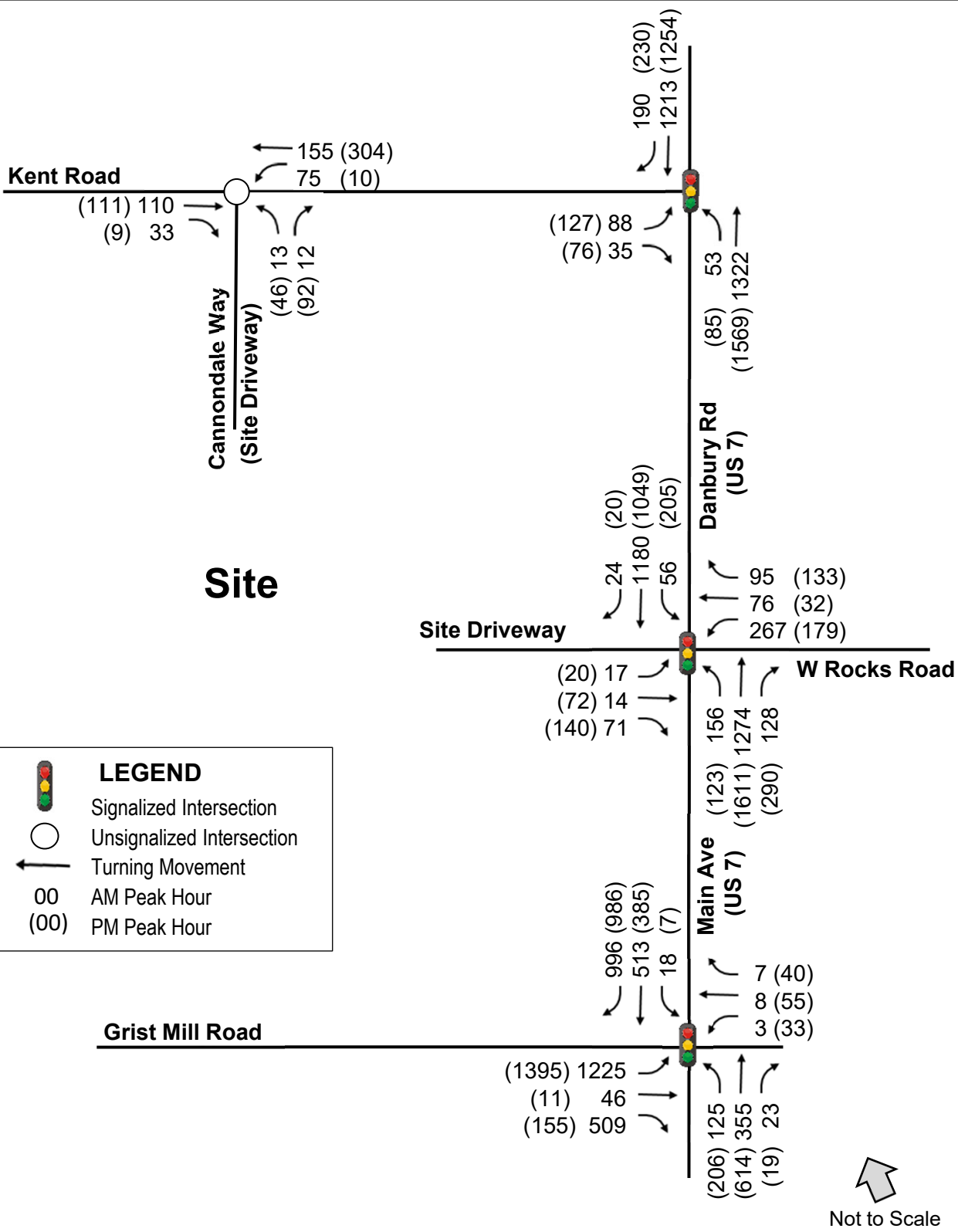
Note: Grist Mill Village trips also include Grist Mill Village Expansion trips.

Not to Scale









2025 Background Traffic Volumes

As directed by the City of Norwalk, this study follows the methodology used in the February 2021 Traffic Impact Study⁶ for the North 7 Master Plan development, which evaluated future conditions based on 2025 volumes developed by the CTDOT. Background traffic volume information for the weekday AM and PM peak hours for the year 2025 was provided by CTDOT from Proposed Project (“PP”) number 102-020 (see Section 4.2 for PP 102-020 description) and is provided in the Appendix.

Following consultation with and consent from CTDOT⁷, the CTDOT entering and exiting volumes at the iPark driveway on Main Avenue were adjusted to be more reflective of current development levels on the iPark site, based on the driveway counts conducted in September 2019. The through movements on US Route 7 at the intersection were likewise modified to maintain the 2025 CTDOT traffic flows between intersections to the north and south. The Adjusted CTDOT 2025 Traffic Volumes at the study locations are shown on **Figure 9**.

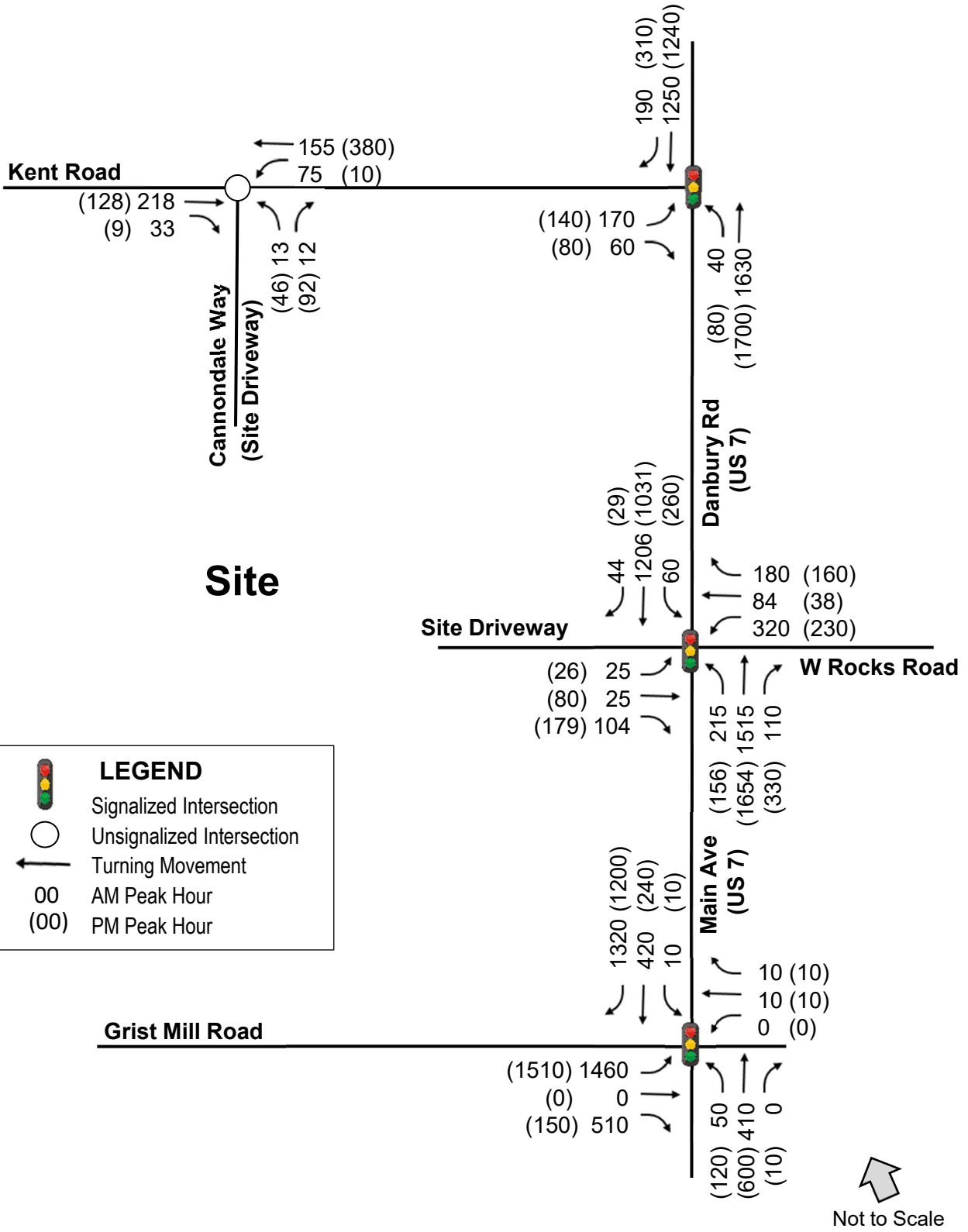
Even with these changes to the 2025 CTDOT traffic volumes, the Main Avenue iPark driveway volumes during the AM peak hour are still 42% higher than those counted in September 2019 and 29% higher than those counted on the driveway during the PM peak hour. Further, the remaining traffic volumes at the iPark main driveway intersection are 24% and 16% higher than those counted in September 2019 during the AM and PM peak hours, respectively. Consequently, the 2025 analyses performed for this study provide a very conservative evaluation of future traffic operating conditions.

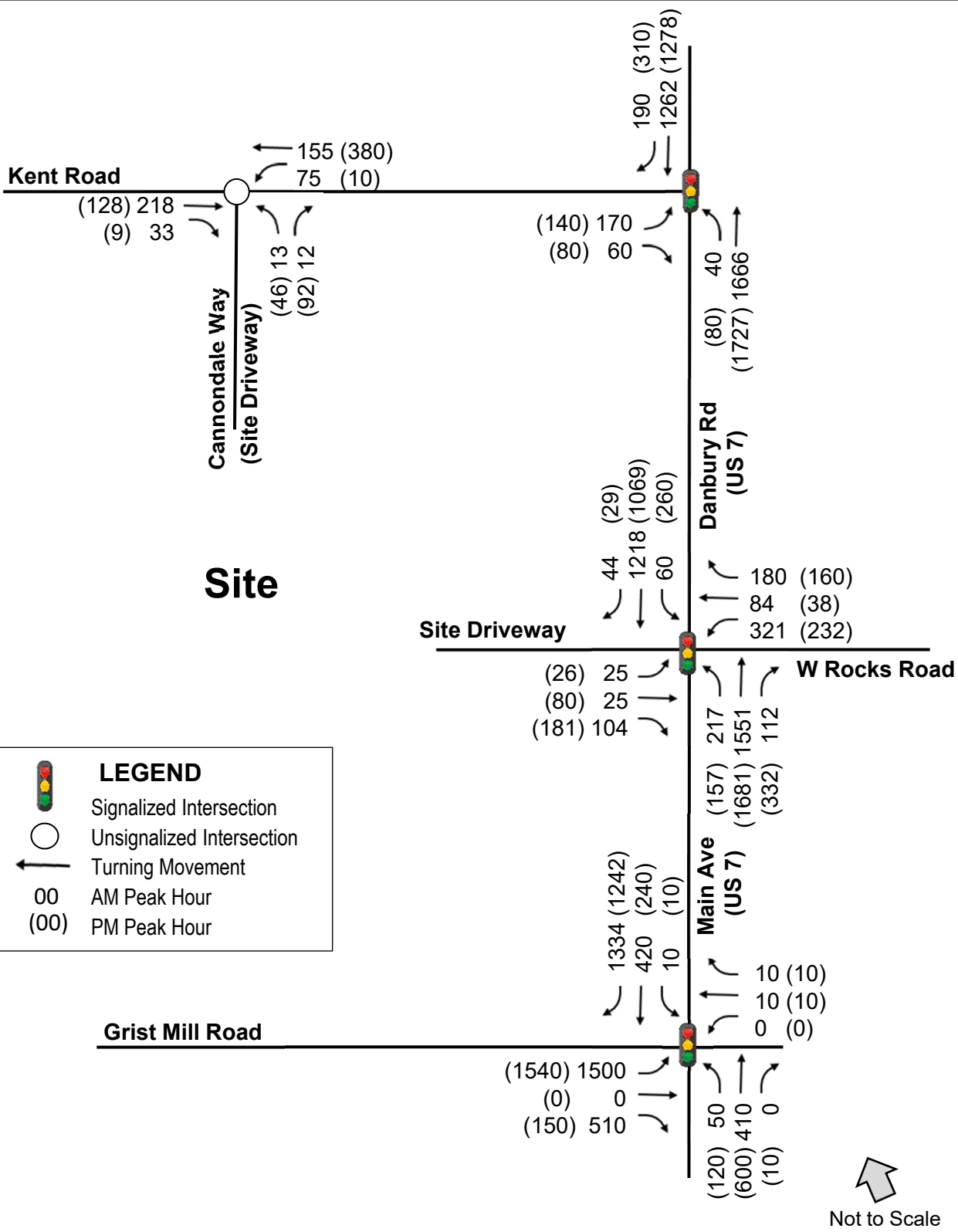
Traffic projected to be generated by two proposed vicinity developments that were not part of the CTDOT 2025 background volumes, the proposed expansion to Grist Mill Village (44 apartments and 3 hotel rooms) and the BLT North 7 Master Plan mixed-use development (1,303 apartments and 27,865 sf retail) and shown in **Figures 4 and 5**, respectively, was added to the traffic volumes shown in Figure 9 to yield the 2025 Background traffic volumes.

The 2025 Background Traffic Volumes are shown on **Figure 10** for the weekday AM and PM peak hours.

⁶ North 7 Master Plan Traffic Impact Study, prepared by Tighe & Bond, dated February 2021.

⁷ Approved per 3/22/2021 email from Marissa Pfaffinger, P.E., CTDOT Highway Management Unit. See Appendix for copy of email.





4.2 Contemplated Future Roadway Improvements

CTDOT is evaluating improvements to US Route 7 in the study area to address existing operational concerns and future growth in the corridor. The improvements, which are being developed under Proposed Project (“PP”) 102-006, extend from the US Route 7 intersection with Grist Mill Road to Kent Road. This project is being conducted in combination with PP 102-020, which involves reconfiguration of the end of the US Route 7 expressway to form a four-leg intersection with Grist Mill Road and Glover Avenue. This modification to the end of the US Route 7 expressway is expected to add more traffic onto US Route 7 (Main Avenue), therefore requiring evaluation and identification of possible improvements on US Route 7 between Grist Mill Road and Kent Road.

Specific improvements being contemplated at three US Route 7 intersections evaluated in this Report are listed below:

US Route 7 (Main Avenue) & iPark Driveway/West Rocks Road

- Convert the northbound US Route 7 right-turn lane into a shared through/right-turn lane to provide three through lanes. Continue the third through lane to the north to approximately 400 feet south of the Kent Road intersection where it tapers to two northbound travel lanes.
- Widen the West Rocks Road approach to provide a second left-turn lane.
- Optimize and coordinate traffic signal timings.
- Add a sidewalk on the west side of Main Avenue south of the iPark driveway.

US Route 7 (Danbury Road) & Kent Road

- Optimize and coordinate traffic signal timings.

US Route 7 (Main Avenue) & Grist Mill Road/CT DMV Driveway

- Widen Main Avenue to provide four (4) northbound lanes (two left-turn lanes, a through lane and a shared through/right-turn lane) and five (5) southbound lanes (a left-turn lane, two through lanes and two right-turn lanes).
- Restripe Grist Mill Road to provide two left-turn lanes, a through lane and a right-turn lane.
- Install a new traffic signal and optimize and coordinate signal timings.

The analyses for the future 2025 Background and Combined conditions include the above improvements.

5.0 PROJECT TRAFFIC

Project traffic is the number of vehicle trips forecast to be generated by the proposed development. This Project traffic is calculated and dispersed throughout the road network and onto the study intersections by using trip generation, trip distribution, and trip assignment.

5.1 Trip Generation

The proposed Project is the expansion of the iPark development and consists of a 132-unit apartment building with a possible future 120-room business hotel. To evaluate the potential traffic impact of these additions, it is necessary to determine the traffic volumes expected to be generated by the new residential and hotel uses. A review was undertaken of the available trip generation data sources, including the reference published by the Institute of Transportation Engineers (ITE), *Trip Generation Manual*, Tenth Edition. This widely utilized reference source contains trip generation rates for related uses: “Multifamily Housing (Mid-Rise)” (Land Use Code 221) and “Business Hotel” (Land Use Code 312).

The proposed Project’s peak-hour trips were calculated and are summarized in **Table 2** below.

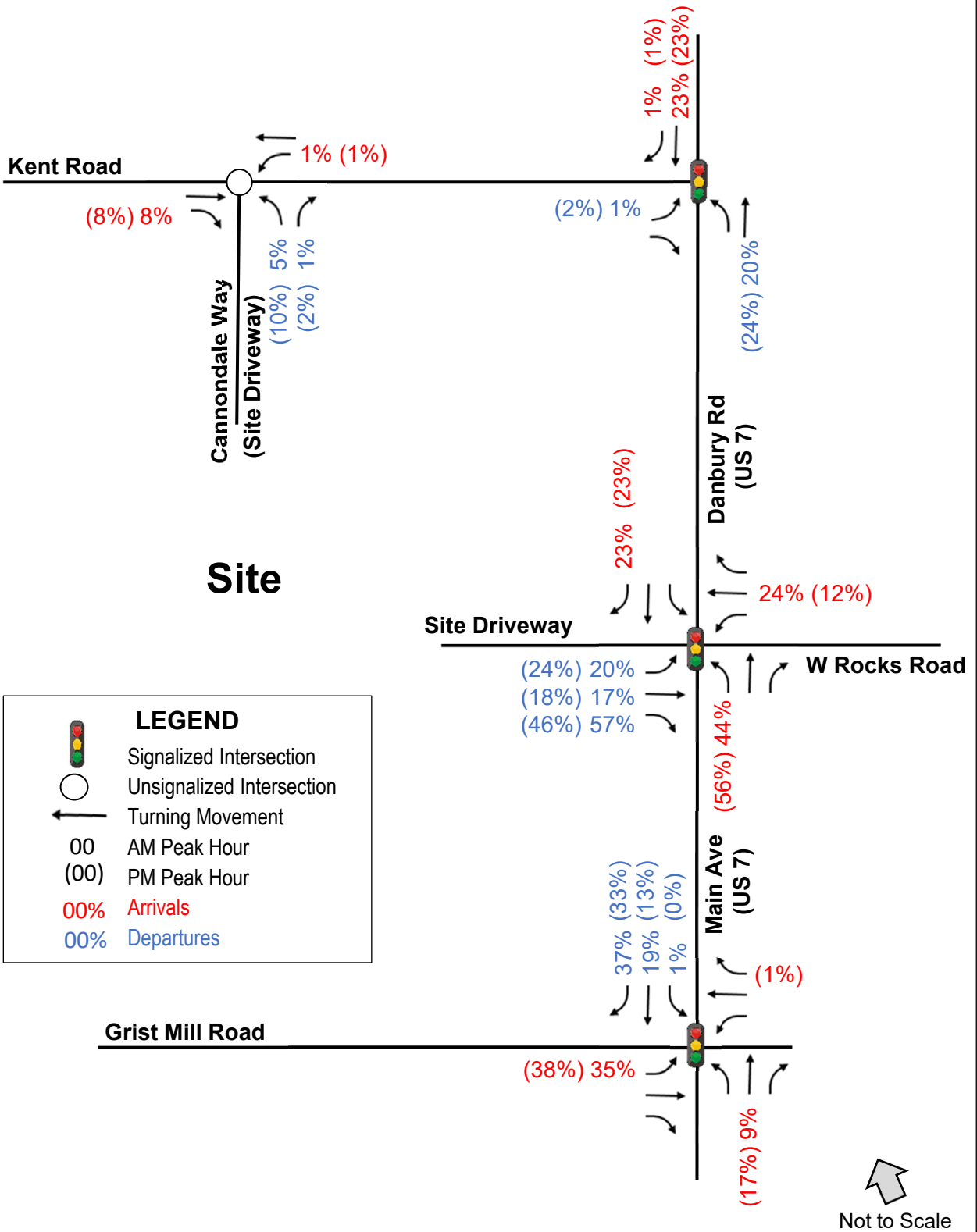
Table 2 – Trip Generation						
Project Component	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
<i>Residential - 132 units</i>						
Vehicular Trips	13	35	48	35	23	58
<i>Hotel - 120 rooms</i>						
Vehicular Trips	20	27	47	21	17	38
Total Project Trips	33	62	95	56	40	96

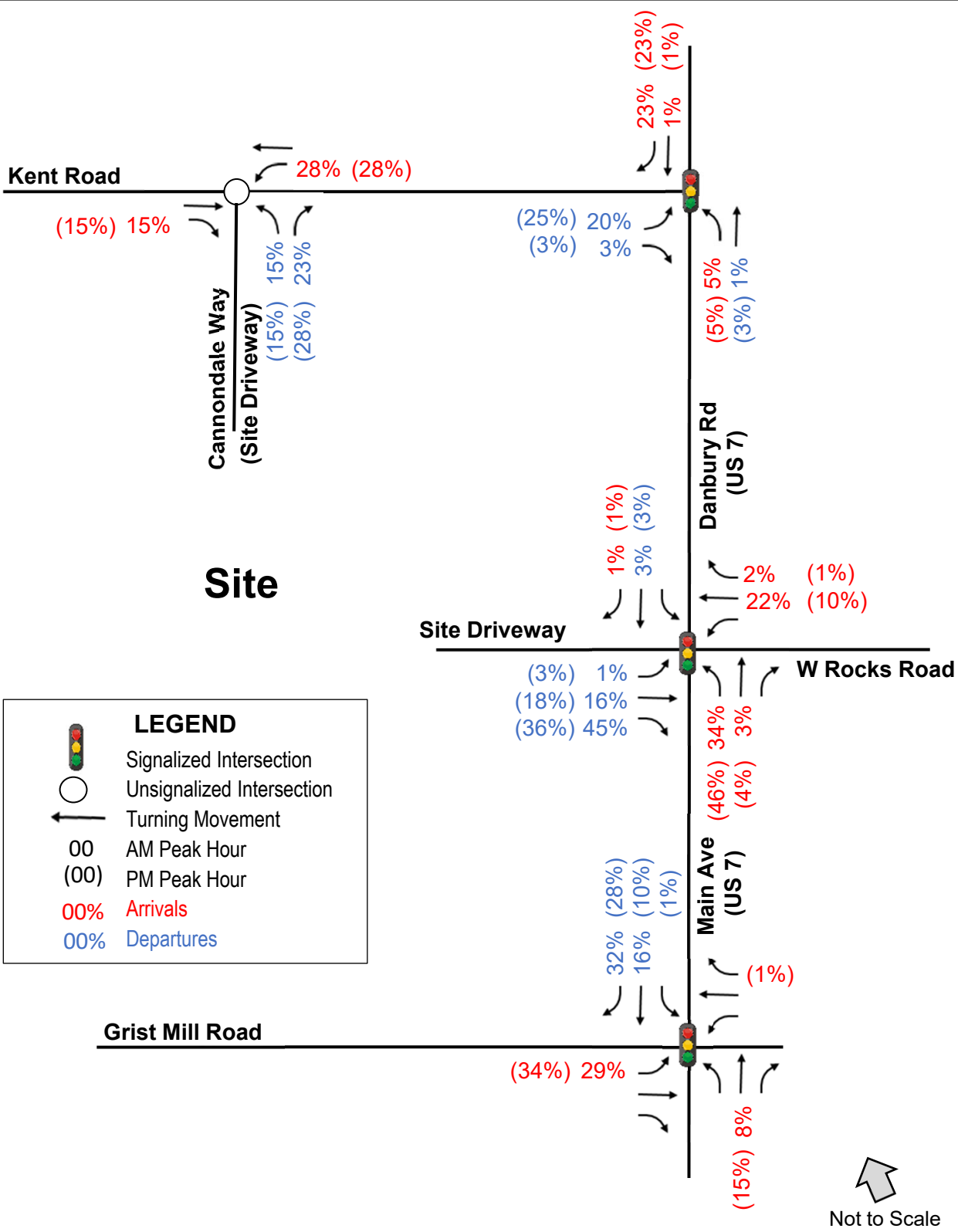
Source: Based on ITE *Trip Generation Manual*, 10th Edition.

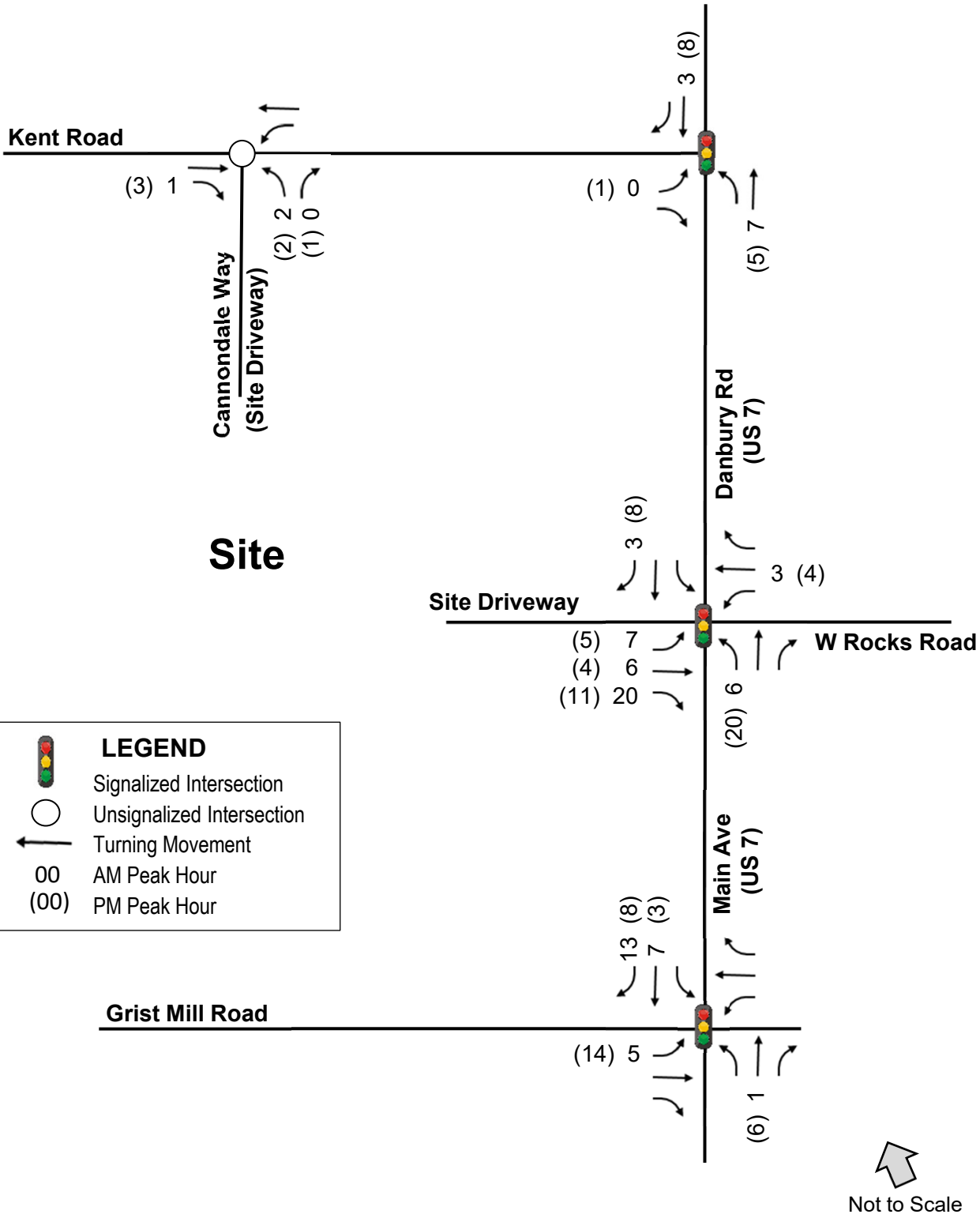
As can be seen from Table 2, the proposed development is anticipated to generate 95 vehicular trips (33 entering trips; 62 exiting trips) during the weekday AM peak hour and 96 vehicular trips (56 entering trips; 40 exiting trips) during the weekday PM peak hour. Conservatively, no credit was taken for any trips that might occur between the new residential and hotel uses and the existing uses on the site.

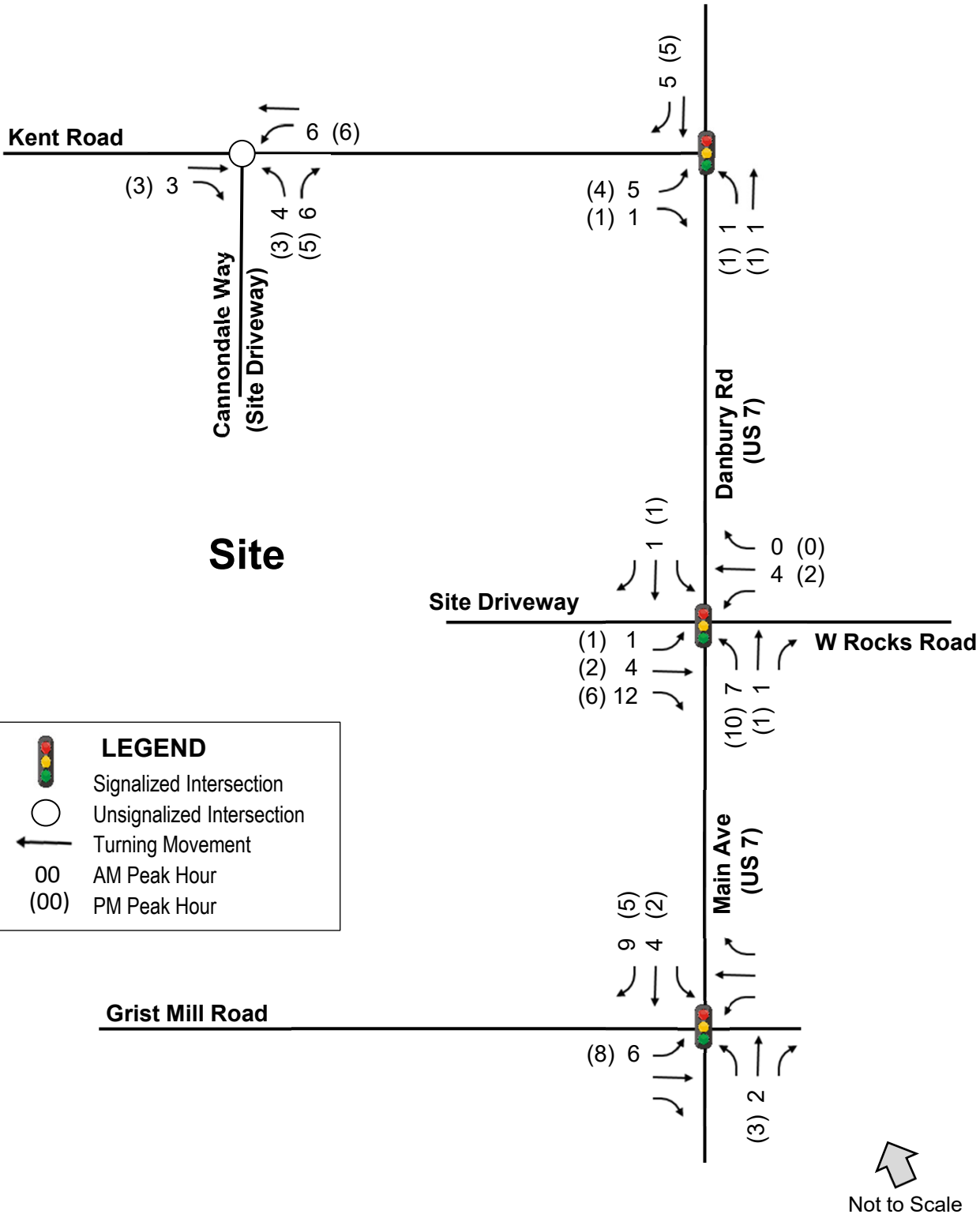
5.2 *Trip Distribution and Assignment*

Trip arrival and departure patterns, which show how the newly-generated trips will travel to and from the Site, were determined based on a review of the existing roadway network, existing access patterns at the site and the proximity of the proposed residential and hotel uses to the access driveways. The trip arrival and departure distribution percentages for the proposed residential and hotel trips are shown graphically on **Figures 11 and 12**. The trip distribution percentages were then applied to the Project-generated trips, resulting in the newly generated traffic, or Project Trips, shown on **Figures 13 and 14** for the hotel and residential trips, respectively. As one can see, the intersections in proximity to the site will not be significantly affected by newly generated traffic. A significant impact is defined by OSTA as having 100 or more peak hour vehicle trips at any given intersection or 50 or more peak hour vehicle trips on any left-hand turning movement.



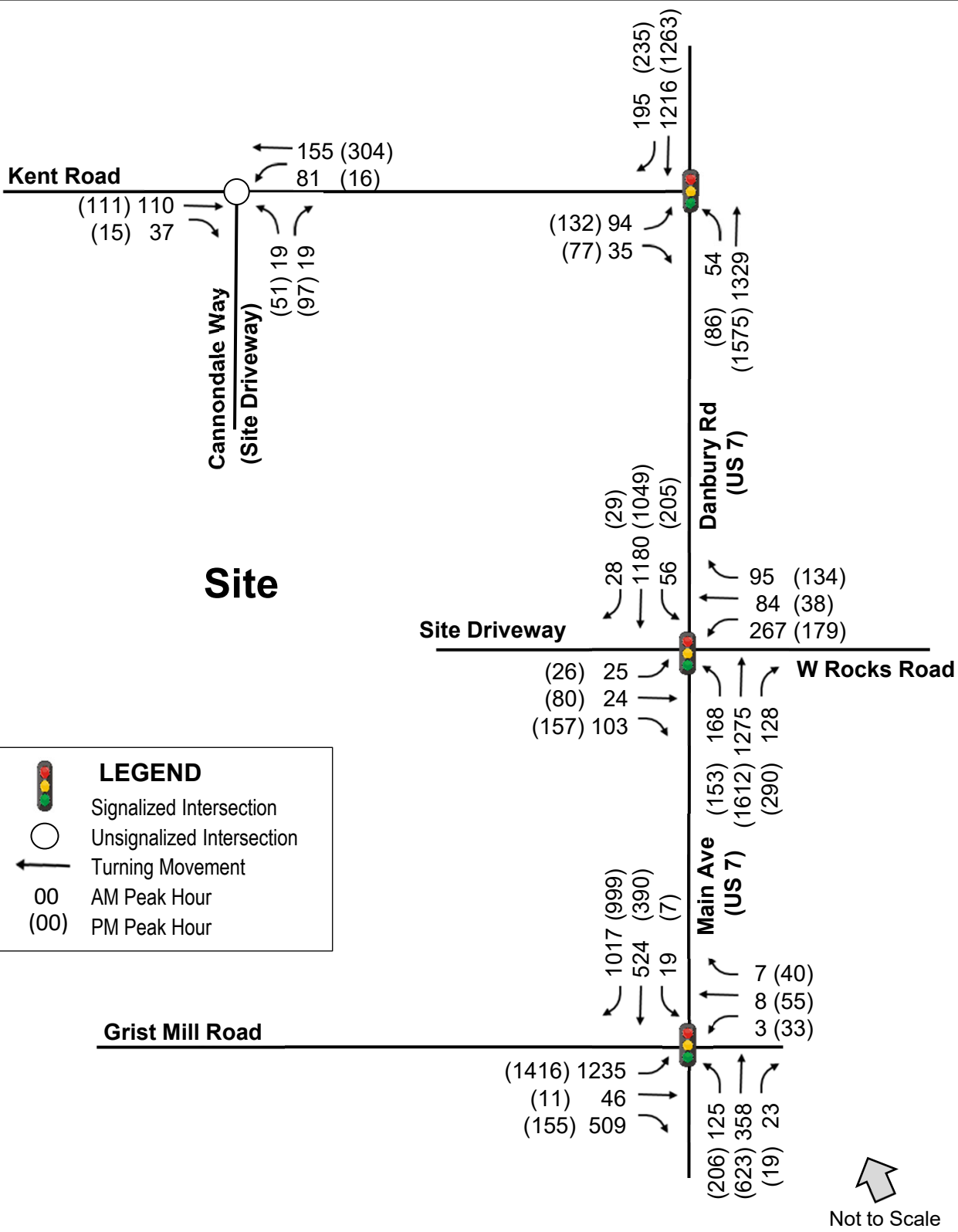


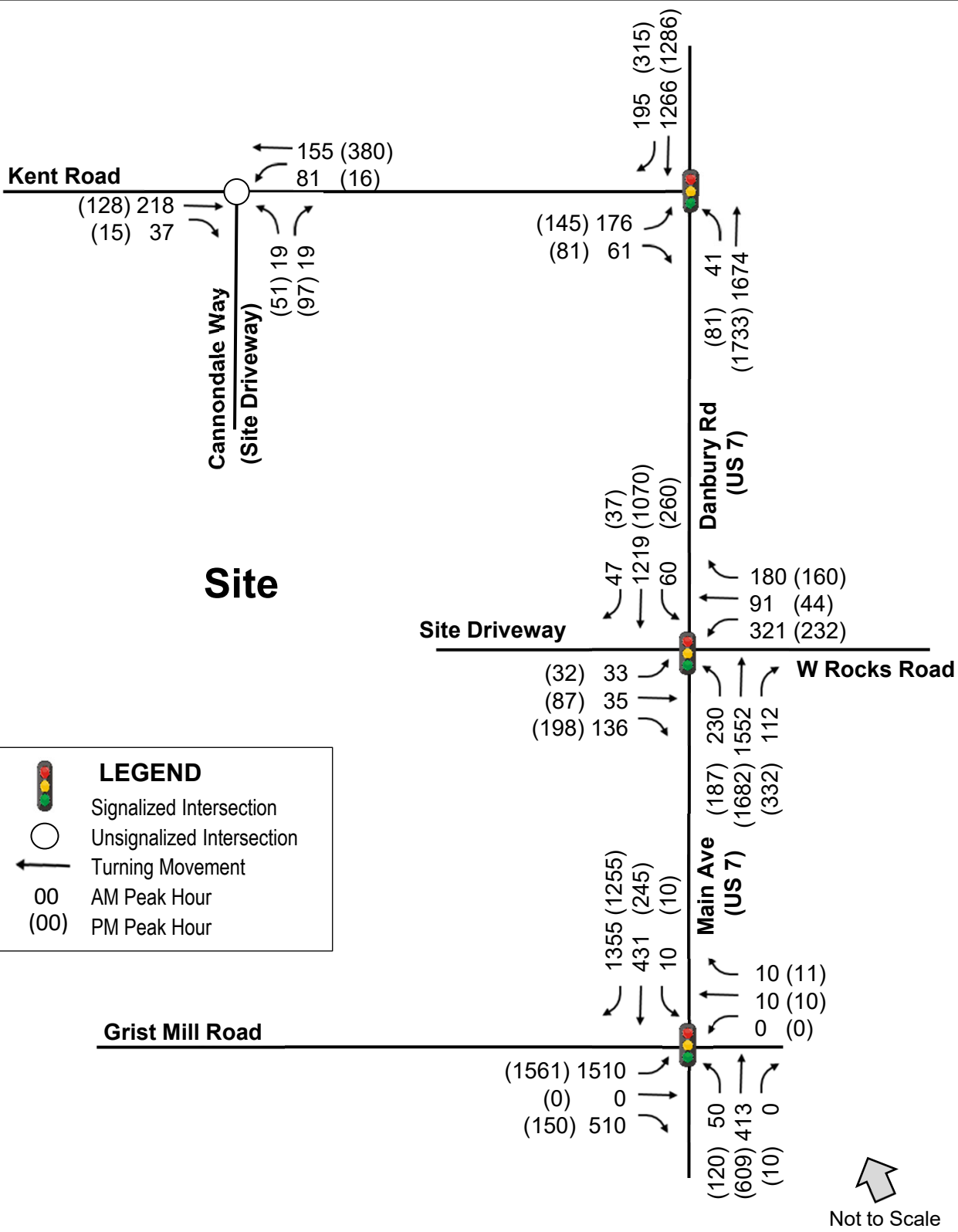




6.0 FUTURE COMBINED TRAFFIC CONDITIONS

The Future Combined conditions are defined as the forecast traffic conditions on the roadway network when the Project is completed. To determine the future Combined traffic volumes for the 2022 and 2025 analysis years, the Project-generated volumes shown on Figures 13 and 14 were added to the 2022 and 2025 Background volumes shown on Figures 8 and 10, respectively. The resulting 2022 and 2025 Combined traffic volumes for the weekday AM and PM peak hours are shown on **Figures 15 and 16** respectively.





7.0 CAPACITY ANALYSIS

7.1 Intersection Capacity Analysis

An intersection capacity analysis was conducted with the Existing volumes (shown on Figure 2) and the 2022 and 2025 Background and Combined peak-hour traffic volumes (shown on Figures 8, 10, 15 and 16) to assess the quality of the traffic flow at the study intersections.

The criteria used to analyze the study intersections is based on the evaluation criteria contained in the Transportation Research Board's *Highway Capacity Manual* ("HCM") 6th Edition. The term "level of service" ("LOS") is used to denote the different operating conditions that occur at an intersection under various traffic volume loads. It is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay, and freedom to maneuver. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

Synchro 10 software was used to model the study intersections based on the parameters mentioned above. Synchro 10 software is widely used by traffic engineering professionals and is consistent with the procedures in the HCM.

The LOS designations, which are based on delay, are reported differently for signalized and unsignalized intersections. For signalized intersections, LOS is based on the average control delay per vehicle for the various lane group movements within the intersection. LOS can be reported for individual turning movements, approaches, or for the intersection as a whole. For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by traffic on the side streets. Thus, the LOS designation is for the critical movement exiting the side street, which is generally the left turn out of the side street or side driveway. For the purposes of this analysis, control delay is defined as the total elapsed time that includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation.

The control delay criteria for the range of service levels for signalized and unsignalized intersections are shown below in **Table 3**.

Table 3 – LOS Criteria		
Level-of-Service (LOS)	Control Delay Per Vehicle	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0 seconds	≤ 10.0 seconds
B	>10.0 and ≤ 20.0 seconds	>10.0 and ≤ 15.0 seconds
C	>20.0 and ≤ 35.0 seconds	>15.0 and ≤ 25.0 seconds
D	>35.0 and ≤ 55.0 seconds	>25.0 and ≤ 35.0 seconds
E	>55.0 and ≤ 80.0 seconds	>35.0 and ≤ 50.0 seconds
F	>80.0 seconds	>50.0 seconds

Source: Transportation Research Board. *Highway Capacity Manual*.

The Synchro analyses use the existing lane geometry and signal phasing and timings for the Existing, 2022 Background and 2022 Combined analyses. The existing signal timings are provided in the Appendix.

For the future 2025 Background and Combined condition, the Synchro analyses use the proposed CTDOT intersection geometry at the Main Avenue (US Route 7) intersections with West Rocks Road/iPark driveway and with Grist Mill Road. At the three signalized study locations on US Route 7, the Synchro analysis uses a 120-second cycle length to be consistent with the cycle length used in the North 7 Master Plan 2025 analysis of the Grist Mill Road intersection with Main Avenue.

The Synchro analyses include pedestrian and bicycle activity at each intersection. The results of the intersection analysis for the Existing, 2022 Background and the 2022 Combined volume conditions for the AM and PM peak hours are summarized in **Tables 4 to 6** below. The 2025 Background and 2025 Combined volume conditions for the AM and PM peak hours are summarized in **Tables 7 and 8** below. In accordance with the City of Norwalk TIAS Guidelines, project impacts were determined by comparing the intersection levels of service and delays under the Background condition to the intersection levels of service and delays under the Combined condition.

The Synchro worksheets are provided in the Appendix.

Table 4 – Existing Conditions – Intersection Capacity Analysis Results							
Intersection	Movement/ Approach	AM Peak Hour			PM Peak Hour		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	12.6	0.20	B	19.5	0.35	B
	WB L	38.8	0.63	D	31.4	0.44	C
	WB TR	29.9	0.34	C	25.8	0.27	C
	NB L	30.0	0.69	C	22.5	0.54	C
	NB T	31.8	0.85	C	152.8	1.26	F
	NB R	3.9	0.19	A	15.0	0.47	B
	SB L	12.2	0.30	B	43.9	0.81	D
	SB TR	29.1	0.94	C	21.5	0.81	C
Overall		29.2		C	77.9		E
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	38.5	0.53	D	46.3	0.73	D
	NB L	5.0	0.14	A	14.9	0.22	B
	NB T	1.8	0.49	A	4.2	0.59	A
	SB TR	20.1	0.77	C	23.8	0.83	C
	Overall		12.5		B	15.7	
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	10.7	0.04	B	10.7	0.18	B
	WB LT	2.8	0.06	A	0.3	0.01	A
Main Ave & Grist Mill Road (Signalized)	EB L	48.0	0.92	D	114.7	1.14	F
	EB LT	42.0	0.88	D	106.5	1.12	F
	EB R	6.7	0.54	A	1.9	0.19	A
	WB LTR	33.2	0.08	C	36.0	0.46	D
	NB L	33.9	0.63	C	25.6	0.57	C
	NB TR	23.5	0.46	C	39.3	0.84	D
	SB L	26.6	0.07	C	31.3	0.06	C
	SB T	60.8	0.94	E	47.0	0.75	D
	SB R	5.8	0.73	A	14.7	0.81	B
Overall		29.0		C	57.4		E

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

Table 5 – 2022 Background Conditions – Intersection Capacity Analysis Results							
Intersection	Mvmt/ Approach	AM Peak Hour			PM Peak Hour		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	12.4	0.20	B	19.6	0.36	B
	WB L	38.5	0.64	D	32.1	0.46	C
	WB TR	29.5	0.34	C	25.9	0.28	C
	NB L	30.7	0.69	C	23.2	0.56	C
	NB T	44.5	0.97	D	184.8	1.34	F
	NB R	4.4	0.20	A	15.7	0.49	B
	SB L	12.1	0.30	B	41.2	0.82	D
	SB TR	43.7	1.02	D	27.1	0.91	C
	Overall	39.3	D		92.2	F	
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	39.9	0.56	D	46.8	0.74	D
	NB L	6.2	0.14	A	15.6	0.22	B
	NB T	2.2	0.55	A	5.2	0.63	A
	SB TR	23.3	0.83	C	31.2	0.92	C
	Overall	14.1	B		19.5	B	
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	10.7	0.04	B	10.8	0.19	B
	WB LT	2.8	0.06	A	0.3	0.01	A
Main Ave & Grist Mill Road (Signalized)	EB L	60.6	0.99	E	137.4	1.20	F
	EB LT	50.2	0.94	D	127.8	1.18	F
	EB R	7.3	0.55	A	1.9	0.19	A
	WB LTR	33.2	0.08	C	36.2	0.47	D
	NB L	34.6	0.64	C	30.1	0.67	C
	NB TR	25.5	0.55	C	43.6	0.88	D
	SB L	26.7	0.07	C	32.1	0.07	C
	SB T	70.1	0.99	E	58.8	0.88	E
	SB R	6.9	0.76	A	22.0	0.89	C
Overall	34.5	C		69.0	E		

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

Table 6 – 2022 Combined Conditions – Intersection Capacity Analysis Results							
Intersection	Mvmt/ Approach	AM Peak Hour			PM Peak Hour		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	12.1	0.25	B	21.7	0.41	C
	WB L	35.3	0.62	D	33.2	0.49	C
	WB TR	26.5	0.31	C	26.2	0.29	C
	NB L	37.8	0.76	D	29.4	0.67	C
	NB T	78.8	1.08	E	185.1	1.34	F
	NB R	4.8	0.22	A	15.7	0.49	B
	SB L	13.2	0.29	B	40.1	0.82	D
	SB TR	90.2	1.13	F	29.1	0.93	C
Overall	67.9	E		91.9	F		
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	41.0	0.58	D	47.7	0.75	D
	NB L	7.1	0.15	A	15.8	0.23	B
	NB T	2.9	0.55	A	5.2	0.64	A
	SB TR	23.9	0.84	C	32.4	0.93	C
	Overall	14.8	B		20.2	C	
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	10.9	0.06	B	11.1	0.21	B
	WB LT	3.0	0.06	A	0.5	0.01	A
Main Ave & Grist Mill Road (Signalized)	EB L	62.4	0.99	E	144.8	1.22	F
	EB LT	51.7	0.95	D	134.2	1.19	F
	EB R	7.4	0.55	A	1.9	0.19	A
	WB LTR	33.2	0.08	C	36.2	0.47	D
	NB L	34.6	0.64	C	30.7	0.68	C
	NB TR	25.6	0.56	C	45.0	0.90	D
	SB L	26.7	0.07	C	32.4	0.08	C
	SB T	75.1	1.01	E	60.5	0.89	E
	SB R	7.5	0.78	A	23.5	0.91	C
Overall	35.9	D		72.5	E		

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

Table 7 – 2025 Background Conditions – Intersection Capacity Analysis Results							
Intersection	Mvmt/ Approach	AM Peak Hour			PM Peak Hour		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	50.3	0.74	D	58.6	0.82	E
	WB L	45.3	0.45	D	48.4	0.41	D
	WB TR	65.7	0.82	E	67.5	0.76	E
	NB L	43.6	0.89	D	40.7	0.81	D
	NB TR	30.2	0.85	C	80.0	1.09	E
	SB L	21.5	0.42	C	79.3	1.01	E
	SB TR	41.6	1.02	D	25.2	0.89	C
	Overall	38.8		D	60.5		E
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	68.1	0.83	E	67.2	0.82	E
	NB L	4.0	0.11	A	19.4	0.25	B
	NB T	12.0	0.70	B	8.0	0.67	A
	SB TR	32.9	0.88	C	27.4	0.87	C
	Overall	24.7		C	20.4		C
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	11.8	0.05	B	11.4	0.20	B
	WB LT	3.0	0.06	A	0.3	0.01	A
Main Ave & Grist Mill Road (Signalized)	EB L	41.8	0.95	D	39.6	0.94	D
	EB LT	0.0	0.0	A	0.0	0.0	A
	EB R	10.4	0.51	B	1.0	0.14	A
	WB LTR	36.8	0.13	D	36.8	0.13	D
	NB L	55.7	0.25	E	59.4	0.49	E
	NB TR	31.8	0.37	C	37.0	0.58	D
	SB L	58.9	0.05	E	39.7	0.07	D
	SB T	58.9	0.51	E	36.3	0.33	D
	SB R	2.9	0.59	A	3.9	0.57	A
	Overall	26.7		C	26.8		C

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

Table 8 – 2025 Combined Conditions – Intersection Capacity Analysis Results							
Intersection	Mvmt/ Approach	AM Peak Hour			PM Peak Hour		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	76.1	0.91	E	75.9	0.93	E
	WB L	45.3	0.45	D	47.7	0.40	D
	WB TR	67.7	0.84	E	65.7	0.75	E
	NB L	54.4	0.95	D	54.5	0.91	D
	NB TR	32.1	0.87	C	79.9	1.09	E
	SB L	19.4	0.42	B	77.2	1.01	E
	SB TR	55.0	1.06	D	26.8	0.91	C
	Overall	46.1	D		62.4	E	
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	68.0	0.84	E	67.2	0.83	E
	NB L	4.1	0.11	A	21.2	0.26	C
	NB T	11.5	0.71	B	8.2	0.68	A
	SB TR	33.6	0.89	C	28.0	0.88	C
	Overall	24.8	C		20.8	C	
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	12.0	0.08	B	11.7	0.23	B
	WB LT	3.1	0.07	A	0.4	0.01	A
Main Ave & Grist Mill Road (Signalized)	EB L	42.9	0.96	D	41.6	0.96	D
	EB LT	0.0	0.0	A	0.0	0.0	A
	EB R	10.4	0.52	B	1.1	0.14	A
	WB LTR	36.8	0.13	D	36.8	0.13	D
	NB L	55.7	0.25	E	59.4	0.49	E
	NB TR	31.9	0.37	C	37.2	0.59	D
	SB L	58.2	0.05	E	40.8	0.07	D
	SB T	59.3	0.52	E	36.7	0.34	D
	SB R	2.9	0.60	A	3.8	0.58	A
Overall	27.2	C		27.7	C		

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

A descriptive summary of the Synchro analysis results shown in Tables 4 to 8 for each study intersection is provided below.

Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road

Existing Conditions – As shown in Table 4, this signalized intersection operates at level of service (LOS) “C” during the AM peak hour and at LOS “E” during the PM peak hour. All movements experience acceptable operating conditions (LOS “D” or better), during the AM peak hour. During

the PM peak hour, all movements experience acceptable operating conditions with the exception of the northbound through movement which operates at LOS “F”.

2022 Background Conditions – As shown in Table 5, in the future under 2022 Background conditions (without the proposed Project, but with forecast increases in existing traffic volumes and vicinity development volumes), compared to Existing conditions, the overall intersection LOS will degrade from LOS “C” to LOS “D” during the AM peak hour and from LOS “E” to LOS “F” during the PM peak hour. During both peak hours, all movements, with one exception, will operate at LOS “D” or better. The exception is the northbound through movement on Main Avenue which will operate at LOS “F” in the PM peak hour with delays increasing by 32 seconds compared to Existing conditions.

2022 Combined Conditions – As shown in Table 6, under future 2022 Combined conditions (with the proposed Project traffic), compared to Background conditions, in the AM peak hour the analyses indicate that, because the project adds traffic to the driveway, this takes time away from the mainline, with the result that there would be a significant impact to the Main Avenue southbound through/right (an increase in delay of 46.5 seconds) which would degrade the movement from LOS “D” to LOS “F”. The northbound through movement would be similarly affected, with an increase in delay of 34.3 seconds causing the LOS to drop from LOS “D” to LOS “E”. The added delays on the northbound and southbound approaches during the AM peak hour will result in the overall intersection levels degrading from LOS “D” under Background conditions to LOS “E” under Combined conditions. During the PM peak hour, all movements and the overall intersection will continue to operate at Background levels with the exception of the iPark driveway approach in which a 2.3 second increase in delay will trigger a LOS change from “B” to “C”.

2025 Background Conditions – As shown in Table 7, in the future under 2025 Background conditions (with CTDOT planned roadway improvements, without the proposed Project, but with CTDOT forecast increases in existing traffic volumes and vicinity development volumes), this signalized intersection will operate at an overall LOS “D” during the AM peak hour and at LOS “E” during the PM peak hour. During the AM peak hour, all movements, with one exception, will operate at LOS “D” or better. The exception is the westbound through/right-turn lane on West Rocks Road which will operate at LOS “E”. During the PM peak hour, four movements will operate at LOS “E” (eastbound left/through/right-turn, westbound through/right-turn, northbound through/right-turn movement and the southbound left-turn). All other movements will operate at LOS “D” or better.

2025 Combined Conditions – As shown in Table 8, under future 2025 Combined conditions (with CTDOT planned roadway improvements and with the proposed Project traffic), compared to 2025 Background conditions, in the AM peak hour the analyses indicates that, because the project adds traffic to the driveway, the driveway will degrade from LOS “D” under Background conditions to LOS “E” under Combined conditions. All other movements and the overall intersection will continue to

operate at Background levels during the AM peak hour. During the PM peak hour, all movements and the overall intersection will continue to operate at Background levels.

Danbury Road (US Route 7) & Kent Road

Existing Conditions – As shown in Table 4, all movements at this signalized intersection experience acceptable operating conditions (LOS “D” or better) during both peak hours. The overall intersection operates at a LOS “B” during both peak hours.

2022 Background Conditions – As shown in Table 5, in the future under 2022 Background conditions (without the proposed Project, but with forecast increases in existing traffic volumes and vicinity development volumes), compared to Existing conditions, all movements will continue to operate at acceptable levels during both peak hours. The overall intersection will continue to operate at a LOS “B” during both peak hours.

2022 Combined Conditions – As shown in Table 6, under future 2022 Combined conditions (with the proposed Project traffic), compared to Background conditions, all movements will continue to operate at Background levels. During the PM peak hour, a 0.7 second increase in intersection delay will trigger a threshold change in LOS from “B” to “C”.

2025 Background Conditions – As shown in Table 7, in the future under 2025 Background conditions (with CTDOT planned roadway improvements, without the proposed Project, but with CTDOT forecast increases in existing traffic volumes and vicinity development volumes), the overall intersection will operate at LOS “C” during both peak hours. All movements will operate at LOS “C” or better during the peak hours with the exception of the Kent Road approach which will operate at LOS “E” during the AM and PM peak hours.

2025 Combined Conditions – As shown in Table 8, under future 2025 Combined conditions (with CTDOT planned roadway improvements and with the proposed Project traffic), the overall intersection and all movements will continue to operate at 2025 Background levels.

Kent Road & iPark Site Driveway (Cannondale Way)

Existing Conditions – As shown in Table 4, under Existing conditions at this unsignalized intersection, all movements experience operating conditions of LOS “B” or better during both peak hours.

2022 Background Conditions – As shown in Table 5, in the future under 2022 Background conditions all movements will continue to operate at Existing levels during both peak hours.

2022 Combined Conditions – As shown in Table 6, under future 2022 Combined conditions (with the proposed Project traffic), compared to Background conditions, all movements will continue to operate at Background levels.

2025 Background Conditions – As shown in Table 7, in the future under 2025 Background conditions all movements at this intersection will operate at LOS “B” or better during the peak hours.

2025 Combined Conditions – As shown in Table 8, under future 2025 Combined conditions, all movements will continue to operate at 2025 Background levels.

Main Avenue (US Route 7) & Grist Mill Road/DMV Driveway

Existing Conditions – As shown in Table 4, this signalized intersection operates at level of service (LOS) “C” during the AM peak hour and at LOS “E” during the PM peak hour. All movements experience acceptable operating conditions (LOS “D” or better) during the AM peak hour with the exception of the southbound through movement which operates at LOS “E”. During the PM peak hour, all movements experience acceptable operating conditions with the exception of the eastbound Grist Mill Road left-turn lane and shared left-turn through lane which operate at LOS “F”.

2022 Background Conditions – As shown in Table 5, in the future under 2022 Background conditions (without the proposed Project, but with forecast increases in existing traffic volumes and vicinity development volumes), the overall intersection LOS will continue to operate at Existing levels. Increased delays on the eastbound left-turn movement during the AM peak hour and on the southbound through movement during the PM peak hour will result in the LOS degrading from LOS “D” to LOS “E” on both movements.

2022 Combined Conditions – As shown in Table 6, under future 2022 Combined conditions (with the proposed Project traffic), compared to Background conditions, a 1.4 second increase in delay will trigger a threshold LOS change for the overall intersection from LOS “C” to LOS “D” in the AM peak hour. All movements during both peak hours and the overall intersection LOS during the PM peak hour will remain at Background levels.

2025 Background Conditions – As shown in Table 7, in the future under 2025 Background conditions (with CTDOT planned roadway improvements, without the proposed Project, but with CTDOT forecast increases in existing traffic volumes and vicinity development volumes), this signalized intersection will operate at an overall LOS “C” during the AM and PM peak hours. During the AM peak hour, all movements, with three exceptions, will operate at LOS “D” or better. The exceptions are the northbound left-turn movement as well as the southbound left-turn and through movements. During the PM peak hour, all movements will operate at LOS “D” or better with the exception of the northbound left-turn movement which will experience a LOS “E”.

2025 Combined Conditions – As shown in Table 8, under future 2025 Combined conditions (with CTDOT planned roadway improvements and with the proposed Project traffic), the overall intersection and all individual movements will continue to operate at Background levels during the AM and PM peak hours.

7.2 Traffic Impact Evaluation

As noted above, the intersection of Main Avenue with West Rocks Road and the iPark driveway will see conditions deteriorate under future 2022 conditions with or without the Project. The overall intersection LOS will change from LOS “D” under Background conditions to LOS “E” under Combined conditions during the AM peak hour. Per the City of Norwalk’s TIAS guidelines, mitigation is required at intersections where a project increases volumes by more than 5 percent and where levels of service drop from Background LOS “D” to either “E” or “F” under Combined conditions. The subject Project increases traffic at the intersection by only 1.9 percent, therefore, mitigation per the TIAS guidelines is not required. Nevertheless, it is recommended that signal timing modifications be implemented to improve traffic operations which will in turn restore intersection operations to 2022 Background levels in the AM peak hour and will improve PM peak hour from LOS “F” under Background conditions to LOS “D” under Combined conditions with the signal timing modifications. With the signal timing modifications, which shift green time from the side street approaches to Main Avenue, the higher functioning roadway, the Main Avenue intersection with West Rocks Road and the iPark driveway will operate at LOS “D” during both peak hours.

Tables 9 and 10 below provides a LOS summary comparing the 2022 Combined conditions with the signal timing modifications to the 2022 Background conditions for the AM and PM peak hours, respectively.

A review of the 2025 Background and Combined LOS results (which project a 23% increase in traffic volumes from 2019 levels by 2025) reveals that mitigation will not be required at any of the study intersections either, as there will be no degradation in overall LOS and increases in traffic will be well less than the prescribed 5%. The only change in LOS will be on the iPark exit to Main Avenue during the morning peak hour while increases in delay will be confined, primarily, to vehicles moving on and off the iPark property (as opposed to passing traffic).

Table 9 – 2022 Background vs. 2022 Combined Improved Conditions - AM Peak Hour Intersection Capacity Analysis Results							
Intersection	Mvmt/ Approach	Background Conditions			Combined Improved Conditions		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	12.4	0.20	B	14.4	0.28	B
	WB L	38.5	0.64	D	43.6	0.72	D
	WB TR	29.5	0.34	C	31.2	0.35	C
	NB L	30.7	0.69	C	34.4	0.74	C
	NB T	44.5	0.97	D	43.0	0.96	D
	NB R	4.4	0.20	A	4.0	0.20	A
	SB L	12.1	0.30	B	10.3	0.30	B
	SB TR	43.7	1.02	D	41.9	1.02	D
	Overall	39.3		D	38.4		D
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	39.9	0.56	D	41.0	0.58	D
	NB L	6.2	0.14	A	6.3	0.15	A
	NB T	2.2	0.55	A	2.4	0.55	A
	SB TR	23.3	0.83	C	23.9	0.84	C
	Overall	14.1		B	14.5		B
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	10.7	0.04	B	10.9	0.06	B
	WB LT	2.8	0.06	A	3.0	0.06	A
Main Ave & Grist Mill Road (Signalized)	EB L	60.6	0.99	E	51.7	0.99	D
	EB LT	50.2	0.94	D	49.5	0.95	D
	EB R	7.3	0.55	A	7.5	0.55	A
	WB LTR	33.2	0.08	C	33.2	0.08	C
	NB L	34.6	0.64	C	42.9	0.64	D
	NB TR	25.5	0.55	C	26.7	0.56	C
	SB L	26.7	0.07	C	26.8	0.07	C
	SB T	70.1	0.99	E	75.1	1.01	E
	SB R	6.9	0.76	A	6.9	0.78	A
	Overall	34.5		C	34.0		C

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

Table 10 – 2022 Background vs. 2022 Combined Improved Conditions - PM Peak Hour - Intersection Capacity Analysis Results							
Intersection	Mvmt/ Approach	Background Conditions			Combined Improved Conditions		
		Delay (secs)	v/c	LOS	Delay (secs)	v/c	LOS
Main Ave (US Route 7) & iPark Site Driveway & West Rocks Rd (Signalized)	EB LTR	19.6	0.36	B	29.2	0.52	C
	WB L	32.1	0.46	C	50.3	0.70	D
	WB TR	25.9	0.28	C	34.5	0.37	C
	NB L	23.2	0.56	C	30.4	0.70	C
	NB T	184.8	1.34	F	76.8	1.08	E
	NB R	15.7	0.49	B	11.8	0.41	B
	SB L	41.2	0.82	D	43.5	0.83	D
	SB TR	27.1	0.91	C	11.6	0.75	B
	Overall	92.2		F	44.5		D
Danbury Road (US Route 7) & Kent Road (Signalized)	EB LR	46.8	0.74	D	47.7	0.75	D
	NB L	15.6	0.22	B	14.8	0.23	B
	NB T	5.2	0.63	A	2.4	0.64	A
	SB TR	31.2	0.92	C	32.4	0.93	C
	Overall	19.5		B	18.9		B
Kent Rd & iPark Site Driveway (Unsignalized)	NB LR	10.8	0.19	B	11.1	0.21	B
	WB LT	0.3	0.01	A	0.5	0.01	A
Main Ave & Grist Mill Road (Signalized)	EB L	137.4	1.20	F	117.2	1.15	F
	EB LT	127.8	1.18	F	107.9	1.13	F
	EB R	1.9	0.19	A	2.1	0.19	A
	WB LTR	36.2	0.47	D	36.2	0.47	D
	NB L	30.1	0.67	C	45.5	0.76	D
	NB TR	43.6	0.88	D	54.0	0.94	D
	SB L	32.1	0.07	C	31.9	0.10	C
	SB T	58.8	0.88	E	49.3	0.91	D
	SB R	22.0	0.89	C	17.7	0.90	B
Overall	69.0		E	62.4		E	

Note: Analysis results based on Synchro 10. LOS = Level of Service. v/c = volume to capacity ratio. Delays represent seconds per vehicle.

As can be seen from Tables 9 and 10, at the Main Avenue intersection with West Rocks Road and the iPark driveway, under future 2022 Combined Improved conditions (with the proposed Project traffic and signal timing adjustments), compared to Background conditions, the overall intersection operating conditions will see a significant improvement during the PM peak hour (from LOS “F” to LOS “D”) while a LOS “D” will be maintained in the AM peak hour and the overall intersection delay

will be reduced. The Main Avenue northbound and southbound through lanes will see improved LOS during both peak hours, most notably during the PM peak hour where the northbound through movement which will see delays reduced by 108 seconds with a corresponding improvement from LOS "F" under Background conditions to LOS "E" with the signal timing changes.

Although no improvements are recommended for the Danbury Road intersection with Kent Road, due to the coordinated signal system along US Route 7, the signal timing changes proposed at the US Route 7 intersection with West Rocks Road and the iPark driveway will result in a minor decrease in northbound delays at the Kent Road intersection (restoring the overall intersection LOS from LOS "C" under Combined conditions, in the PM peak hour, to LOS "B" for Combined conditions with the proposed West Rocks Road/iPark driveway signal timing changes).

Although Project traffic will have almost no noticeable impact on peak-hour traffic operating conditions in 2022 at the intersection of Grist Mill Road with Main Avenue (an overall increase in delay of 1.4 seconds in the AM peak hour, which will trip a change in LOS, and a 3.5 second overall increase in the PM peak hour, which will not), the analysis indicates that future traffic volumes will be a little out of balance (two LOS E movements in the AM Peak hour and two LOS F with one LOS E movement in the PM peak hour). Overall delays (and some poorer LOS movements) could be improved with modest signal timing adjustments. These signal timing adjustments are reflected in Tables 9 and 10.

7.3 Queue Analysis

The queue lengths reported in the Synchro analyses for the Existing conditions and the 2022 and 2025 Background and Combined conditions were reviewed and are summarized in **Tables 11 and 12** below.

Table 11 – 95 th Percentile Queuing Summary – Existing, 2022 Background & 2022 Combined Conditions										
Approach	Lane Use	Available Storage (feet)	Weekday AM Peak Hour				Weekday PM Peak Hour			
			Exist.	2022 Bckgrd.	2022 Comb.	2022 Comb. Impr.	Exist.	2022 Bckgrd.	2022 Comb.	2022 Comb. Impr.
Intersection: Main Avenue (US Route 7) & West Rocks Road & iPark Site Driveway (Signalized)										
iPark Drwy	EB LTR	115/400 ²	63	63	89	97	185	192	242	325
West Rocks Road	WB L	125 ³	347	358	370	407	230	242	248	303
	WB TR	1000+	179	184	195	242	155	165	175	256
Main Avenue	NB L	285	130	140	148	136	67	69	102	107
	NB T	1000+	531	620	621	563	683	738	738	654
	NB R	115	33	37	37	34	134	142	142	123
	SB L	335	16	15	15	12	96	84	81	83
	SB TR	610	525	563	565	529	274	312	310	116
Intersection: Danbury Road (US Route 7) & Kent Road (Signalized)										
Kent Road	EB LR	220 ⁴	101	107	112	112	159	163	169	169
Danbury Road	NB L	115	6	6	5	3	11	11	11	12
	NB T ¹	660	72	74	34	40	36	35	37	44
	SB TR ¹	365	455	544	551	551	453	588	598	598
Intersection: Kent Road & iPark Site Driveway (Unsignalized)										
Kent Road	EB TR	70	0	0	0	0	0	0	0	0
	WB LT	240	5	5	5	5	1	1	1	1
iPark Drwy	NB LR	1000+	3	3	5	5	17	17	20	20
Intersection: Main Avenue & Grist Mill Road (Signalized)										
Grist Mill Road	EB L ¹	400	644	710	716	687	758	811	828	804
	EB LT ¹	400	621	685	693	700	762	814	829	805
	EB R ¹	400	123	138	140	150	19	20	20	22
DMV Drwy	WB LTR	180	15	15	15	15	57	58	58	58
Main Avenue	NB L ¹	1000+	105	109	109	130	136	138	138	185
	NB TR ¹	1000+	238	291	295	300	540	587	601	626
	SB L	140	27	27	28	29	16	16	16	16
	SB T ¹	1000+	536	570	587	587	332	417	424	388
	SB R ¹	1000+	218	277	310	273	479	758	780	751

Note: Queuing results taken from Synchro intersection analyses. Queuing lengths are reported in feet. Queues which exceed storage lengths are noted in **Bold** typeface. Existing, Background and Combined queuing analyses are based on existing geometry and signal timings. Combined with Mitigation queuing analyses are based on existing geometry and proposed signal timing changes to the Main Ave. intersection with West Rocks Rd/iPark driveway

1. Storage length measured to nearest upstream signalized intersection.
2. 115' storage length to the first internal intersection; total of 400' storage provided including the area to the west of the first internal intersection.
3. Storage length is effectively longer than 125 feet as the westbound through lane on West Rocks Road opens into two lanes on the approach to the intersection.
4. 220 ft storage measured to iPark Driveway; additional 70 ft storage available to the west of driveway prior to RR tracks

Table 12 - 95 th Percentile Queuing Summary – 2025 Background & 2025 Combined Conditions						
Approach	Lane Use	Available Storage (feet)	Weekday AM Peak Hour		Weekday PM Peak Hour	
			2025 Background	2025 Combined	2025 Background	2025 Combined
Intersection: Main Avenue (US Route 7) & West Rocks Road & iPark Site Driveway (Signalized)						
iPark Drwy	EB LTR	115/400 ⁴	142	257	510	568
West Rocks Road	WB L (2 lanes) ¹	200	317	317	130	130
	WB TR	215	566	582	304	316
Main Avenue	NB L	215	164	184	87	130
	NB TR ³	1000+	488	485	382	362
	SB L	335	4	4	224	216
	SB TR ²	610	680	684	544	547
Intersection: Danbury Road (US Route 7) & Kent Road (Signalized)						
Kent Road	EB LR	220 ⁵	250	257	232	238
Danbury Road	NB L	115	3	3	17	19
	NB T ²	660	759	762	668	671
	SB TR ²	365	693	708	667	680
Intersection: Kent Road & iPark Site Driveway (Unsignalized)						
Kent Road	EB TR	70	0	0	0	0
	WB LT	240	5	5	1	1
iPark Drwy	NB LR	1000+	4	6	19	22
Intersection: Main Avenue & Grist Mill Road (Signalized)						
Grist Mill Road	EB L	645	778	787	791	809
	EB T ²	400	0	0	0	0
	EB R ²	400	203	205	17	18
DMV Drwy	WB LTR	180	18	18	18	18
Main Avenue	NB L/L	320/460	41	41	83	83
	NB TR ²	1000+	194	196	305	310
	SB L	155	12	12	8	8
	SB T ²	1000+	191	191	91	91
	SB R/R	250/390	109	106	493	482

Note: Queuing results taken from Synchro intersection analyses. Queuing lengths are reported in feet. Queues which exceed storage lengths are noted in **Bold** typeface.

1. Effective storage is longer than value shown as the (rightmost) WB left-turn lane is developed from the through lane on West Rocks Road.
2. Storage length measured to nearest upstream signalized intersection.
3. Two (2) through lanes' storage exceeds 1000 feet. Shared through/right-turn lane storage is 215 feet. Synchro reports one (1) queue length for the combined through lanes (T, T, TR).
4. 115' storage length to the first internal intersection; total of 400' storage provided including the area to the west of the first internal intersection.
5. 220 ft storage measured to iPark Driveway; additional 70 ft storage available to the west of driveway prior to RR tracks

The maximum (95th percentile) queues for the 2022 Background conditions were compared to the average and maximum queues for the 2022 Combined conditions. A summary of the queueing analysis for each intersection is provided below.

Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road

As shown in Table 11, the westbound left-turn queue will exceed the available storage during the AM and PM peak hours under Existing and 2022 Background and Combined conditions. Compared to Background conditions, the westbound left-turn queue will increase by up to 12 feet (or less than one vehicle). The eastbound iPark driveway queue will exceed the available storage during the PM peak hour for all analysis conditions. The northbound right-turn queue will exceed the available storage during the PM peak hour under Existing and 2022 Background and Combined conditions, however the queue will not increase under Combined conditions.

With the recommended signal timing changes to improve traffic flow on Main Avenue, the westbound left-turn and eastbound approach will see queues increase under Combined with Mitigation conditions. However, the signal timing changes, which give more green time to US Route 7, the higher functioning roadway, will see queues decrease along US Route 7. The iPark driveway approach will experience queues under Background and Combined conditions during the PM peak hour that will extend into the site's internal roadways.

It is recommended that "Don't Block the Box" striping and signage be provided at the first internal intersection to facilitate internal traffic flow. It is also recommended that a directional way-finding sign be erected at the end of the landscaped island encountered on the left immediately after crossing the bridge into the site, to allow entering motorists to easily discern the way to their destination. In addition, a striped walkway should be provided along the north side of the entrance driveway to the sidewalk in front of Building B. If necessary, the access to the parking on the north side of the driveway immediately east of the bridge could be made one-way only, northbound, to simplify the intersection and reduce conflicts.

Danbury Road (US Route 7) & Kent Road

The southbound US Route 7 through/right-turn movement currently experiences queues that extend beyond the adjacent upstream signalized intersection (Kensett Avenue) during the AM and PM peak hours; however, the additional Project traffic will result in the queue increasing by only 10 feet or fewer (less than one vehicle) during the peak hours. None of the other movements at this intersection (northbound left-turn and through or eastbound left/right-turn) have queues that exceed the available storage and the Project traffic will have little, if any, impact.

Kent Road & iPark Site Driveway (Cannondale Way)

The maximum queues on all approaches are well within the provided storage, and the Project will have an insignificant impact.

Main Avenue (US Route 7) & Grist Mill Road/DMV Driveway

Under Existing, 2022 Background and 2022 Combined conditions, the maximum queues on the eastbound Grist Mill Road left-turn lane and shared left-turn/through lane will exceed the available storage during the AM and PM peak hours. Compared to 2022 Background conditions, the 2022 Combined conditions will see an insignificant increase in queue of up to 17 feet (or less than one vehicle).

The maximum (95th percentile) queues for the 2025 Background conditions were compared to the average and maximum queues for the 2025 Combined conditions. Both analysis conditions include CTDOT's contemplated improvements to US Route 7. A summary of the queueing analysis for each intersection is provided below.

Main Avenue (US Route 7) & iPark Site Driveway/West Rocks Road

As shown in Table 12, for the 2025 conditions, the westbound left-turn and through/right-turn queues and the southbound through/right-turn queue will exceed the available storage during the AM peak hour under Background and Combined conditions. Compared to Background conditions, the Combined queues will increase by up to 16 feet (or less than one vehicle). For the PM peak hour, the westbound through/right-turn lane will exceed the available storage under the Background and Combined conditions, however, the queue will increase by only 12 feet under Combined conditions as a result of the added Project traffic. The iPark driveway approach will experience queues under Background and Combined conditions that will extend into the site; the added Project traffic will result in a 58-foot increase in queue (or less than 3 vehicles). It is noted that the projected driveway traffic volumes are 29% greater than counted in 2019 during this period, so it is unlikely that this queue length will ever materialize. To ensure that internal traffic flows are not impacted by potential queuing from the traffic signal, it is recommended that that "Don't Block the Box" striping and signage be provided at the first internal intersection. If necessary, the access to the parking on the north side of the driveway immediately east of the bridge could be made one-way only, northbound, to simplify the intersection and reduce conflicts. As discussed above, wayfinding signage and a striped pedestrian walkway are also proposed.

Danbury Road (US Route 7) & Kent Road

In 2025, the southbound US Route 7 through/right-turn movement will continue to experience queues during the peak hours that extend beyond the adjacent upstream signalized intersection (Kensett Avenue); however, the additional Project traffic will result in the queues increasing by only 15 feet or fewer (less than one vehicle). The queues on the northbound through movement will extend beyond the adjacent signalized intersection (Gateway Center driveway) during the AM and PM peak hours under the 2025 Background and Combined conditions. Compared to the Background queues, the Combined queues increase by an imperceptible 3 feet in the peak hours. The maximum queue on eastbound Kent Road will extend to the iPark driveway intersection (to the centerline extended of the

driveway) during the AM peak hour under Background and Combined conditions. The Combined queue is only 7 feet longer than the Background queue. During the PM peak hour, the eastbound queue will extend to the iPark driveway, with the Combined queue measuring 6 feet more than the Background queue. For the 2022 and 2025 analysis conditions, the eastbound maximum queue will not extend the railroad crossing which is 340 feet to the west of Danbury Road. The northbound left-turn queue will not exceed the available storage and the Project traffic will have little if any impact. Again, it is noted that peak-hour volume increases of 23% under this condition by 2025 seem unlikely, in view of present circumstances.

Kent Road & iPark Site Driveway (Cannondale Way)

At the Kent Road intersection with the iPark Driveway (Cannondale Road), the maximum queues are well within the provided storage, and the Project will have an insignificant impact.

Main Avenue (US Route 7) & Grist Mill Road/DMV Driveway

Under 2025 Background and 2025 Combined conditions, the maximum queues on the eastbound Grist Mill Road left-turn lane and shared left-turn/through lane will exceed the available storage during the AM and PM peak hours. Compared to Background conditions, the Combined conditions will see an insignificant increase in queue of up to 18 feet (or less than one vehicle). During the PM peak hour, the maximum queue on the southbound right-turn lanes will exceed the available storage during the Background and Combined conditions. Due to upstream metering for the Combined condition (as determined by the Synchro software), the Combined condition has a queue that is 11 feet shorter than the Background queue.

To summarize, on the movements where the queues exceed the available storage, other than on the iPark site driveway approach at its intersection with Main Avenue (US Route 7), the added traffic from the Project will result in queues to increase by up to 18 feet or less (less than one vehicle). The Kent Road eastbound queue at the intersection with Danbury Road will not extend to the railroad crossing located 340 feet to the west.

8.0 CONCLUSIONS

The data presented in this study indicate that the proposed apartments and contemplated hotel will not have a significant adverse impact on traffic operations in the study area. The 2022 traffic volumes provide the most realistic assessment of traffic conditions upon completion of the Project. The 2025 traffic volumes used in this study at the direction of the City provide a conservative analysis of future traffic operating conditions as the 2025 Background volumes are projected to increase by to a 23 percent compared to the 2019 existing volumes.

The Project will add up to 96 peak hour trips (or just over 1.5 vehicles per minute) which will be dispersed to the area roadways, and which will constitute an increase of up to only 1.6 percent to the overall traffic volumes. Under future 2022 Combined conditions, with the recommended signal timing change at the Main Avenue intersection with West Rocks Road and the iPark driveway, the analyses indicate that Project impacts will be minimized, and improved traffic operating conditions will occur on Main Avenue. Under 2025 conditions with the contemplated improvements by CTDOT, all movements will operate at Level-of-Service "E" or better conditions, the project will not cause any changes in Level-of-Service to any of the movements along Main Avenue, Grist Mill Road or Kent Avenue, and that the largest increases in delays will be confined to the iPark exiting driveway movements. The Applicant will be implementing on-site improvements to better accommodate traffic internally to the site.

Based on these findings, it is concluded that the increase in traffic volumes associated with the proposed Project will not have a significant adverse impact on traffic operations at the study intersections or on the area roadways.

Appendix

- 2019 Traffic Counts
- CTDOT 2025 Background Traffic Volumes & Correspondence
 - Crash Records Summary
 - Synchro Capacity Analyses
 - Existing
 - 2022 Background
 - 2022 Combined
 - 2025 Background
 - 2025 Combined
 - Signal Timing Plans

2019 Traffic Counts

Intersection Counts

ATR counts

Study Name Main Avenue/W Rocks Rd
Start Date 09/12/2019
Start Time 7:30 AM
Site Code
Project Kimley-Horn Norwalk CT 09-2019
Main Avenue/W Rocks Rd
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Totals

Start Time	Driveway Eastbound				W Rocks Rd Westbound				Main Ave Northbound				Main Ave Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	6	6	21	0	56	25	17	0	23	244	16	0	19	261	4	0
7:45 AM	8	6	17	0	62	28	32	0	57	261	29	0	22	261	11	0
8:00 AM	9	0	11	0	76	18	21	0	35	272	26	0	13	265	4	0
8:15 AM	1	3	14	0	69	19	19	0	35	290	24	0	8	287	3	0
8:30 AM	5	9	27	0	70	21	25	0	42	282	31	0	14	281	5	0
8:45 AM	2	2	18	0	44	17	28	0	37	262	40	0	20	271	12	0
9:00 AM	4	8	26	0	64	22	17	0	42	259	21	0	21	265	7	0
9:15 AM	8	11	28	0	41	13	18	0	43	224	31	0	22	233	7	0
4:30 PM	8	9	26	0	48	12	30	0	43	351	65	0	35	207	3	0
4:45 PM	12	12	43	0	45	10	25	0	27	376	61	0	35	193	8	0
5:00 PM	16	20	59	0	35	7	28	0	21	347	62	0	45	230	6	0
5:15 PM	6	13	37	0	47	10	42	0	31	377	55	0	48	211	5	0
5:30 PM	5	24	30	0	39	6	36	0	28	368	62	0	53	228	6	0
5:45 PM	4	20	39	0	39	7	31	0	33	365	70	0	56	216	0	0
6:00 PM	5	14	28	0	47	8	22	0	27	393	71	1	44	227	9	0
6:15 PM	12	12	40	0	49	6	27	0	33	367	75	0	30	212	6	0

Study Name Main Avenue/W Rocks Rd

Start Date 09/12/2019

Start Time 7:30 AM

Site Code

Project Kimley-Horn Norwalk CT 09-2019

Main Avenue/W Rocks Rd

Wilton/Norwalk, CT

Thursday, September 12, 2019

**Type Road
Classification Lights**

Start Time	Driveway Eastbound				W Rocks Rd Westbound				Main Ave Northbound				Main Ave Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	6	6	19	0	56	25	15	0	23	228	16	0	18	253	4	0
7:45 AM	8	6	17	0	62	28	32	0	57	253	27	0	21	251	11	0
8:00 AM	9	0	11	0	76	18	20	0	35	257	25	0	13	254	4	0
8:15 AM	1	3	14	0	69	19	17	0	35	275	23	0	8	278	3	0
8:30 AM	5	9	26	0	68	20	24	0	41	265	26	0	13	264	5	0
8:45 AM	2	2	18	0	40	17	27	0	37	255	38	0	19	258	12	0
9:00 AM	4	7	26	0	61	22	17	0	41	243	20	0	20	254	7	0
9:15 AM	8	10	27	0	40	13	17	0	41	214	31	0	22	208	7	0
4:30 PM	8	9	25	0	48	12	28	0	43	345	65	0	34	201	3	0
4:45 PM	12	12	43	0	45	10	25	0	27	370	60	0	34	190	8	0
5:00 PM	16	19	57	0	35	7	28	0	21	338	61	0	45	227	6	0
5:15 PM	6	13	37	0	46	10	42	0	31	376	55	0	48	208	5	0
5:30 PM	5	24	30	0	39	6	35	0	28	364	61	0	53	221	6	0
5:45 PM	4	20	39	0	39	7	31	0	33	365	69	0	56	213	0	0
6:00 PM	5	13	28	0	47	8	22	0	27	388	70	1	44	221	9	0
6:15 PM	12	12	40	0	48	6	27	0	33	366	75	0	30	207	6	0

Study Name Main Avenue/W Rocks Rd

Start Date 09/12/2019

Start Time 7:30 AM

Site Code

Project Kimley-Horn Norwalk CT 09-2019

Main Avenue/W Rocks Rd

Wilton/Norwalk, CT

Thursday, September 12, 2019

Type Crosswalk

Classification Bicycles on Crosswalk

Start Time	Driveway Eastbound			W Rocks Rd Westbound			Main Ave Northbound			Main Ave Southbound		
	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir
7:30 AM	0	0		0	0		0	0		0	0	
7:45 AM	0	0		0	0		0	0		0	0	
8:00 AM	0	0		0	0		0	0		0	0	
8:15 AM	0	0		0	0		0	0		0	0	
8:30 AM	0	0		0	0		0	0		0	0	
8:45 AM	0	0		0	0		0	0		0	0	
9:00 AM	0	0		0	0		0	0		0	0	
9:15 AM	0	0		0	0		0	0		0	0	
4:30 PM	0	0		0	0		0	0		0	0	
4:45 PM	0	0		0	0		0	0		0	0	
5:00 PM	0	0		0	0		0	0		0	0	
5:15 PM	0	0		0	0		0	0		0	0	
5:30 PM	0	0		0	0		0	0		0	0	
5:45 PM	0	0		0	0		0	0		0	0	
6:00 PM	0	0		0	0		0	0		0	0	
6:15 PM	0	0		0	0		0	0		0	0	

Study Name Main Avenue/W Rocks Rd

Start Date 09/12/2019

Start Time 7:30 AM

Site Code

Project Kimley-Horn Norwalk CT 09-2019

Main Avenue/W Rocks Rd

Wilton/Norwalk, CT

Thursday, September 12, 2019

**Type Road
Classification Trucks**

Start Time	Driveway Eastbound				W Rocks Rd Westbound				Main Ave Northbound				Main Ave Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	0	0	2	0	0	0	1	0	0	16	0	0	1	8	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	7	1	0	1	9	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	12	0	0	0	11	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	15	1	0	0	8	0	0
8:30 AM	0	0	1	0	1	1	0	0	1	15	2	0	1	15	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	6	1	0	1	11	0	0
9:00 AM	0	0	0	0	1	0	0	0	1	13	1	0	1	11	0	0
9:15 AM	0	1	1	0	1	0	1	0	0	10	0	0	0	24	0	0
4:30 PM	0	0	1	0	0	0	1	0	0	4	0	0	1	3	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	4	1	0	1	2	0	0
5:00 PM	0	0	2	0	0	0	0	0	0	6	1	0	0	2	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	2	1	0	0	4	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0
6:15 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	5	0	0

Study Name Main Avenue/W Rocks Rd

Start Date 09/12/2019

Start Time 7:30 AM

Site Code

Project Kimley-Horn Norwalk CT 09-2019

Main Avenue/W Rocks Rd

Wilton/Norwalk, CT

Thursday, September 12, 2019

Type Crosswalk

Classification Pedestrians

Start Time	Driveway Eastbound			W Rocks Rd Westbound			Main Ave Northbound			Main Ave Southbound		
	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir
7:30 AM	0	0		0	0		0	0		1	0	
7:45 AM	0	0		0	0		0	0		0	2	
8:00 AM	0	0		0	1		0	0		0	1	
8:15 AM	0	0		0	0		0	0		5	1	
8:30 AM	0	0		0	1		0	0		0	2	
8:45 AM	0	0		0	0		0	0		0	1	
9:00 AM	0	0		0	1		0	0		0	3	
9:15 AM	0	0		2	0		0	0		0	2	
4:30 PM	0	0		0	0		0	0		1	1	
4:45 PM	0	0		0	0		0	0		1	0	
5:00 PM	0	0		0	0		0	0		2	0	
5:15 PM	0	0		0	0		0	0		0	1	
5:30 PM	0	0		0	0		0	0		3	0	
5:45 PM	0	0		0	0		0	0		0	1	
6:00 PM	0	0		0	0		0	0		0	0	
6:15 PM	0	0		0	0		0	0		0	1	

Study Name Kent Rd/Danbury Rd/Main Ave
Start Date 09/12/2019
Start Time 7:30 AM
Site Code
Project Kimley-Horn Norwalk CT 09-2019
Kent Rd/Danbury Rd/Main Ave
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Totals

Start Time	Kent Rd Eastbound				n/a Westbound				Danbury Rd Northbound				Danbury Rd Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	9		6	0					11	246		0	290	27	0	
7:45 AM	20		10	0					15	294		0	277	56	0	
8:00 AM	10		9	0					14	280		0	266	44	0	
8:15 AM	20		9	0					10	319		0	279	56	0	
8:30 AM	16		7	0					14	279		0	291	34	0	
8:45 AM	25		9	0					12	295		0	321	42	0	
9:00 AM	25		7	0					7	243		0	286	27	0	
9:15 AM	23		10	0					1	250		0	274	22	0	
4:30 PM	14		10	0					9	333		0	257	20	0	
4:45 PM	27		13	0					20	341		0	215	32	0	
5:00 PM	35		23	0					22	321		0	285	50	0	
5:15 PM	30		15	0					27	350		0	287	59	0	
5:30 PM	37		14	0					19	369		0	272	58	0	
5:45 PM	28		24	0					20	374		0	301	65	0	
6:00 PM	28		10	0					17	389		0	273	41	0	
6:15 PM	16		14	0					22	366		0	242	22	0	

Study Name Kent Rd/Danbury Rd/Main Ave
Start Date 09/12/2019
Start Time 7:30 AM
Site Code
Project Kimley-Horn Norwalk CT 09-2019
Kent Rd/Danbury Rd/Main Ave
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Lights

Start Time	Kent Rd Eastbound				n/a Westbound				Danbury Rd Northbound				Danbury Rd Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	9		6	0					11	228		0	279	27		0
7:45 AM	19		10	0					14	285		0	266	55		0
8:00 AM	10		9	0					14	265		0	257	44		0
8:15 AM	20		9	0					10	302		0	270	56		0
8:30 AM	15		7	0					14	266		0	273	32		0
8:45 AM	24		9	0					11	280		0	306	42		0
9:00 AM	25		7	0					7	233		0	273	25		0
9:15 AM	23		10	0					1	238		0	253	22		0
4:30 PM	14		10	0					9	324		0	250	20		0
4:45 PM	27		13	0					20	333		0	210	31		0
5:00 PM	35		23	0					22	317		0	282	50		0
5:15 PM	30		15	0					27	344		0	284	59		0
5:30 PM	36		14	0					19	363		0	265	58		0
5:45 PM	28		24	0					20	372		0	297	65		0
6:00 PM	28		10	0					17	385		0	267	40		0
6:15 PM	16		14	0					22	364		0	238	22		0

Study Name Kent Rd/Danbury Rd/Main Ave
Start Date 09/12/2019
Start Time 7:30 AM
Site Code
Project Kimley-Horn Norwalk CT 09-2019
Kent Rd/Danbury Rd/Main Ave
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Buses

Start Time	Kent Rd Eastbound				n/a Westbound				Danbury Rd Northbound				Danbury Rd Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	0		0	0					0	1		0	0	0		0
7:45 AM	1		0	0					0	0		0	1	1		0
8:00 AM	0		0	0					0	3		0	0	0		0
8:15 AM	0		0	0					0	2		0	1	0		0
8:30 AM	0		0	0					0	2		0	2	0		0
8:45 AM	1		0	0					0	1		0	1	0		0
9:00 AM	0		0	0					0	3		0	0	1		0
9:15 AM	0		0	0					0	0		0	1	0		0
4:30 PM	0		0	0					0	2		0	2	0		0
4:45 PM	0		0	0					0	1		0	1	1		0
5:00 PM	0		0	0					0	1		0	1	0		0
5:15 PM	0		0	0					0	2		0	0	0		0
5:30 PM	0		0	0					0	3		0	2	0		0
5:45 PM	0		0	0					0	0		0	2	0		0
6:00 PM	0		0	0					0	0		0	0	1		0
6:15 PM	0		0	0					0	0		0	0	0		0

Study Name Kent Rd/Danbury Rd/Main Ave

Start Date 09/12/2019

Start Time 7:30 AM

Site Code

Project Kimley-Horn Norwalk CT 09-2019

Kent Rd/Danbury Rd/Main Ave

Wilton/Norwalk, CT

Thursday, September 12, 2019

Type Crosswalk

Classification Bicycles on Crosswalk

Start Time	Kent Rd Eastbound			n/a Westbound			Danbury Rd Northbound			Danbury Rd Southbound		
	Peds CW	Peds CCW	ds Combin	Peds SB	Peds NB	ds Combin	Peds CW	Peds CCW	ds Combin	Peds CW	Peds CCW	ds Combin
7:30 AM	0	0					0	0		0	0	
7:45 AM	0	0					0	0		0	0	
8:00 AM	0	0					0	0		0	0	
8:15 AM	0	0					0	0		0	0	
8:30 AM	0	0					0	0		0	0	
8:45 AM	0	0					0	0		0	0	
9:00 AM	0	0					0	0		0	0	
9:15 AM	0	0					0	0		0	0	
4:30 PM	0	0					0	0		0	0	
4:45 PM	0	0					0	0		0	0	
5:00 PM	0	0					0	0		0	0	
5:15 PM	0	0					0	0		0	0	
5:30 PM	0	0					0	0		0	0	
5:45 PM	0	0					0	0		0	0	
6:00 PM	0	0					0	0		0	0	
6:15 PM	0	0					0	0		0	0	

Study Name Kent Rd/Danbury Rd/Main Ave
Start Date 09/12/2019
Start Time 7:30 AM
Site Code
Project Kimley-Horn Norwalk CT 09-2019
Kent Rd/Danbury Rd/Main Ave
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Trucks

Start Time	Kent Rd Eastbound				n/a Westbound				Danbury Rd Northbound				Danbury Rd Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM	0		0	0					0	17		0	11	0		0
7:45 AM	0		0	0					1	9		0	10	0		0
8:00 AM	0		0	0					0	12		0	9	0		0
8:15 AM	0		0	0					0	15		0	8	0		0
8:30 AM	1		0	0					0	11		0	16	2		0
8:45 AM	0		0	0					1	14		0	14	0		0
9:00 AM	0		0	0					0	7		0	13	1		0
9:15 AM	0		0	0					0	12		0	20	0		0
4:30 PM	0		0	0					0	7		0	5	0		0
4:45 PM	0		0	0					0	7		0	4	0		0
5:00 PM	0		0	0					0	3		0	2	0		0
5:15 PM	0		0	0					0	4		0	3	0		0
5:30 PM	1		0	0					0	3		0	5	0		0
5:45 PM	0		0	0					0	2		0	2	0		0
6:00 PM	0		0	0					0	4		0	6	0		0
6:15 PM	0		0	0					0	2		0	4	0		0

Study Name Kent Rd/Danbury Rd/Main Ave

Start Date 09/12/2019

Start Time 7:30 AM

Site Code

Project Kimley-Horn Norwalk CT 09-2019

Kent Rd/Danbury Rd/Main Ave

Wilton/Norwalk, CT

Thursday, September 12, 2019

Type Crosswalk

Classification Pedestrians

Start Time	Kent Rd Eastbound			n/a Westbound			Danbury Rd Northbound			Danbury Rd Southbound		
	Peds CW	Peds CCW	ds Combin	Peds SB	Peds NB	ds Combin	Peds CW	Peds CCW	ds Combin	Peds CW	Peds CCW	ds Combin
7:30 AM	0	0					0	0		0	0	
7:45 AM	0	0					0	0		0	0	
8:00 AM	0	0					2	0		0	0	
8:15 AM	0	0					0	0		0	0	
8:30 AM	0	0					0	0		0	0	
8:45 AM	0	0					0	0		0	0	
9:00 AM	0	0					0	0		0	0	
9:15 AM	0	0					0	0		0	0	
4:30 PM	0	0					0	0		0	0	
4:45 PM	0	0					0	0		0	0	
5:00 PM	0	0					0	0		0	0	
5:15 PM	0	0					0	0		0	0	
5:30 PM	0	0					0	0		0	0	
5:45 PM	0	0					0	0		0	0	
6:00 PM	0	0					0	0		0	0	
6:15 PM	0	0					0	0		0	0	

Study Name Cannondale Way/Kent Road
Start Date 09/12/2019
Start Time 7:30 AM
Site Code 01
Project Kimley-Horn Norwalk CT 09-2019
Cannondale Way/Kent Road
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Totals

Start Time	Kent Rd Eastbound				Kent Rd Westbound				Cannondale Way Northbound				n/a Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM		18	10	0	11	32		0	2		1	0				
7:45 AM		31	14	0	25	44		0	0		1	0				
8:00 AM		20	12	0	20	37		0	2		1	0				
8:15 AM		22	6	0	19	46		0	2		5	0				
8:30 AM		20	7	0	19	32		0	3		3	0				
8:45 AM		32	7	0	17	38		0	6		3	0				
9:00 AM		37	8	0	14	17		0	2		1	0				
9:15 AM		21	4	0	11	16		0	2		5	0				
4:30 PM		15	3	0	2	35		0	11		12	0				
4:45 PM		18	1	0	5	42		1	8		22	0				
5:00 PM		18	4	0	4	74		0	16		39	0				
5:15 PM		24	6	0	2	79		0	12		28	0				
5:30 PM		28	2	0	3	83		0	19		21	0				
5:45 PM		20	1	0	3	73		2	8		25	0				
6:00 PM		18	0	0	2	48		0	6		16	0				
6:15 PM		22	2	0	4	38		0	7		8	0				

Study Name Cannondale Way/Kent Road
Start Date 09/12/2019
Start Time 7:30 AM
Site Code 01
Project Kimley-Horn Norwalk CT 09-2019
Cannondale Way/Kent Road
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Lights

Start Time	Kent Rd Eastbound				Kent Rd Westbound				Cannondale Way Northbound				n/a Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM		18	10	0	11	32		0	2		1	0				
7:45 AM		30	14	0	24	44		0	0		1	0				
8:00 AM		20	12	0	20	37		0	2		1	0				
8:15 AM		22	6	0	19	45		0	2		5	0				
8:30 AM		20	7	0	19	31		0	3		2	0				
8:45 AM		31	7	0	17	37		0	6		3	0				
9:00 AM		37	8	0	13	16		0	2		1	0				
9:15 AM		21	4	0	11	16		0	2		5	0				
4:30 PM		15	3	0	2	35		0	11		12	0				
4:45 PM		18	1	0	4	42		1	8		22	0				
5:00 PM		18	4	0	4	74		0	16		39	0				
5:15 PM		23	6	0	2	79		0	12		28	0				
5:30 PM		28	2	0	3	83		0	19		21	0				
5:45 PM		20	1	0	2	73		2	8		25	0				
6:00 PM		18	0	0	2	48		0	6		16	0				
6:15 PM		22	2	0	4	38		0	7		8	0				

Study Name Cannondale Way/Kent Road
Start Date 09/12/2019
Start Time 7:30 AM
Site Code 01
Project Kimley-Horn Norwalk CT 09-2019
Cannondale Way/Kent Road
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Buses

Start Time	Kent Rd Eastbound				Kent Rd Westbound				Cannondale Way Northbound				n/a Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM		0	0	0	0	0		0	0		0	0				
7:45 AM		1	0	0	1	0		0	0		0	0				
8:00 AM		0	0	0	0	0		0	0		0	0				
8:15 AM		0	0	0	0	0		0	0		0	0				
8:30 AM		0	0	0	0	0		0	0		0	0				
8:45 AM		1	0	0	0	0		0	0		0	0				
9:00 AM		0	0	0	1	0		0	0		0	0				
9:15 AM		0	0	0	0	0		0	0		0	0				
4:30 PM		0	0	0	0	0		0	0		0	0				
4:45 PM		0	0	0	1	0		0	0		0	0				
5:00 PM		0	0	0	0	0		0	0		0	0				
5:15 PM		0	0	0	0	0		0	0		0	0				
5:30 PM		0	0	0	0	0		0	0		0	0				
5:45 PM		0	0	0	1	0		0	0		0	0				
6:00 PM		0	0	0	0	0		0	0		0	0				
6:15 PM		0	0	0	0	0		0	0		0	0				

Study Name Cannondale Way/Kent Road

Start Date 09/12/2019

Start Time 7:30 AM

Site Code 01

Project Kimley-Horn Norwalk CT 09-2019

Cannondale Way/Kent Road

Wilton/Norwalk, CT

Thursday, September 12, 2019

Type Crosswalk

Classification Bicycles on Crosswalk

Start Time	Kent Rd Eastbound			Kent Rd Westbound			Cannondale Way Northbound			n/a Southbound		
	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir	Peds CW	Peds CCW	ds Combir	Peds EB	Peds WB	ds Combir
7:30 AM	0	0		0	0		0	0				
7:45 AM	0	0		0	0		0	0				
8:00 AM	0	0		0	0		0	0				
8:15 AM	0	0		0	0		0	0				
8:30 AM	0	0		0	0		0	0				
8:45 AM	0	0		0	0		0	0				
9:00 AM	0	0		0	0		0	0				
9:15 AM	0	0		0	0		0	0				
4:30 PM	0	0		0	0		0	0				
4:45 PM	0	0		0	0		0	0				
5:00 PM	0	0		0	0		0	0				
5:15 PM	0	0		0	0		0	0				
5:30 PM	0	0		0	0		0	0				
5:45 PM	0	0		0	0		0	0				
6:00 PM	0	0		0	0		0	0				
6:15 PM	0	0		0	0		0	0				

Study Name Cannondale Way/Kent Road

Start Date 09/12/2019

Start Time 7:30 AM

Site Code 01

Project Kimley-Horn Norwalk CT 09-2019

Cannondale Way/Kent Road

Wilton/Norwalk, CT

Thursday, September 12, 2019

Type Crosswalk

Classification Pedestrians

Start Time	Kent Rd Eastbound			Kent Rd Westbound			Cannondale Way Northbound			n/a Southbound		
	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin	Peds CW	Peds CCW	Peds Combin	Peds EB	Peds WB	Peds Combin
7:30 AM	0	0		0	0		0	0				
7:45 AM	0	0		0	0		0	0				
8:00 AM	0	0		0	0		0	0				
8:15 AM	0	0		0	0		0	0				
8:30 AM	0	0		0	0		0	0				
8:45 AM	0	0		0	0		0	0				
9:00 AM	0	0		0	0		0	0				
9:15 AM	0	0		0	0		0	0				
4:30 PM	0	0		0	0		0	0				
4:45 PM	0	0		0	0		0	0				
5:00 PM	0	0		0	0		0	0				
5:15 PM	0	0		0	0		0	0				
5:30 PM	0	0		0	0		0	0				
5:45 PM	0	0		0	0		0	0				
6:00 PM	0	0		0	0		0	0				
6:15 PM	0	0		0	0		0	0				

Study Name Cannondale Way/Kent Road
Start Date 09/12/2019
Start Time 7:30 AM
Site Code 01
Project Kimley-Horn Norwalk CT 09-2019
Cannondale Way/Kent Road
Wilton/Norwalk, CT
Thursday, September 12, 2019

Type Road
Classification Trucks

Start Time	Kent Rd Eastbound				Kent Rd Westbound				Cannondale Way Northbound				n/a Southbound			
	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn
7:30 AM		0	0	0	0	0		0	0		0	0				
7:45 AM		0	0	0	0	0		0	0		0	0				
8:00 AM		0	0	0	0	0		0	0		0	0				
8:15 AM		0	0	0	0	1		0	0		0	0				
8:30 AM		0	0	0	0	1		0	0		1	0				
8:45 AM		0	0	0	0	1		0	0		0	0				
9:00 AM		0	0	0	0	1		0	0		0	0				
9:15 AM		0	0	0	0	0		0	0		0	0				
4:30 PM		0	0	0	0	0		0	0		0	0				
4:45 PM		0	0	0	0	0		0	0		0	0				
5:00 PM		0	0	0	0	0		0	0		0	0				
5:15 PM		1	0	0	0	0		0	0		0	0				
5:30 PM		0	0	0	0	0		0	0		0	0				
5:45 PM		0	0	0	0	0		0	0		0	0				
6:00 PM		0	0	0	0	0		0	0		0	0				
6:15 PM		0	0	0	0	0		0	0		0	0				

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Start Time	09-Sep-19		Tue		Wed		Thu		Fri		Sat		Sun		Average Da		
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	*	*	*	*	*	*	*	247	18	155	19	159	24	121	20	170	
12:15	*	*	*	*	*	*	*	252	16	262	24	143	28	128	23	196	
12:30	*	*	*	*	*	*	*	271	14	181	23	189	23	131	20	193	
12:45	*	*	*	*	*	*	*	242	5	201	22	148	20	142	16	183	
01:00	*	*	*	*	*	*	*	230	15	141	18	203	16	133	16	177	
01:15	*	*	*	*	*	*	*	124	12	147	12	133	18	138	14	136	
01:30	*	*	*	*	*	*	*	130	8	155	14	184	19	135	14	151	
01:45	*	*	*	*	*	*	*	123	11	138	12	168	5	112	9	135	
02:00	*	*	*	*	*	*	*	127	5	191	11	146	12	126	9	148	
02:15	*	*	*	*	*	*	*	137	8	178	20	144	13	135	14	148	
02:30	*	*	*	*	*	*	*	96	6	182	12	144	5	104	8	132	
02:45	*	*	*	*	*	*	*	126	8	170	11	137	11	99	10	133	
03:00	*	*	*	*	*	*	*	125	0	177	6	132	5	113	4	137	
03:15	*	*	*	*	*	*	*	196	5	140	9	131	6	102	7	142	
03:30	*	*	*	*	*	*	*	128	5	135	3	153	3	109	4	131	
03:45	*	*	*	*	*	*	*	178	11	150	11	123	7	117	10	142	
04:00	*	*	*	*	*	*	*	140	12	160	2	112	4	97	6	127	
04:15	*	*	*	*	*	*	*	161	3	113	2	138	4	110	3	130	
04:30	*	*	*	*	*	*	*	189	16	176	4	105	4	91	8	140	
04:45	*	*	*	*	*	*	*	199	20	201	14	147	12	112	15	165	
05:00	*	*	*	*	*	*	*	169	17	149	9	138	5	127	10	146	
05:15	*	*	*	*	*	*	*	184	23	168	16	115	6	114	15	145	
05:30	*	*	*	*	*	*	*	164	18	139	15	122	13	119	15	136	
05:45	*	*	*	*	*	*	*	160	37	147	31	115	14	116	27	134	
06:00	*	*	*	*	*	*	*	7	189	44	184	24	131	16	133	23	159
06:15	*	*	*	*	*	*	*	95	175	48	155	38	110	14	84	49	131
06:30	*	*	*	*	*	*	*	97	157	95	183	32	98	23	119	62	139
06:45	*	*	*	*	*	*	*	107	147	77	191	57	137	24	124	66	150
07:00	*	*	*	*	*	*	*	130	138	116	140	77	118	32	85	89	120
07:15	*	*	*	*	*	*	*	166	118	93	132	68	81	44	115	93	112
07:30	*	*	*	*	*	*	*	185	111	125	92	80	80	32	90	106	93
07:45	*	*	*	*	*	*	*	226	106	133	104	72	92	46	69	119	93
08:00	*	*	*	*	*	*	*	203	83	118	105	82	65	68	69	118	80
08:15	*	*	*	*	*	*	*	208	106	114	86	91	84	45	69	114	86
08:30	*	*	*	*	*	*	*	213	78	142	75	90	66	70	60	129	70
08:45	*	*	*	*	*	*	*	216	80	170	72	89	63	69	51	136	66
09:00	*	*	*	*	*	*	*	205	76	148	71	113	68	71	65	134	70
09:15	*	*	*	*	*	*	*	208	55	118	81	110	59	74	56	128	63
09:30	*	*	*	*	*	*	*	180	69	100	64	117	58	88	45	121	59
09:45	*	*	*	*	*	*	*	175	46	112	72	105	55	88	32	120	51
10:00	*	*	*	*	*	*	*	149	52	134	56	140	43	100	25	131	44
10:15	*	*	*	*	*	*	*	157	29	99	54	138	46	79	45	118	44
10:30	*	*	*	*	*	*	*	171	41	102	53	120	39	101	27	124	40
10:45	*	*	*	*	*	*	*	176	28	91	51	133	47	107	23	127	37
11:00	*	*	*	*	*	*	*	191	35	100	52	108	34	113	32	128	38
11:15	*	*	*	*	*	*	*	177	24	120	37	133	54	129	16	140	33
11:30	*	*	*	*	*	*	*	169	29	159	29	173	32	129	15	158	26
11:45	*	*	*	*	*	*	*	221	16	165	19	149	24	133	8	167	17
Total	0	0	0	0	0	0	0	4032	6086	3016	6114	2659	5113	1972	4288	2997	5398
Day Total	0	0	0	0	0	0	0	10118	10118	9130	9130	7772	7772	6260	6260	8395	8395
% Splits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	39.8%	60.2%	33.0%	67.0%	34.2%	65.8%	31.5%	68.5%	35.7%	64.3%
Peak	-	-	-	-	-	-	-	07:45	12:00	08:30	12:00	11:00	01:00	11:00	00:45	11:00	00:15
Vol.	-	-	-	-	-	-	-	850	1012	578	799	563	688	504	548	593	749
P.H.F.	-	-	-	-	-	-	-	0.940	0.934	0.850	0.762	0.814	0.847	0.947	0.965	0.888	0.955

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Start Time	16-Sep-19		Tue		Wed		Thu		Fri		Sat		Sun		Average Da	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	15	158	18	157	20	171	9	206	11	*	*	*	*	*	15	173
12:15	10	164	3	161	12	139	10	156	17	*	*	*	*	*	10	155
12:30	11	168	12	140	15	165	8	126	11	*	*	*	*	*	11	150
12:45	12	176	11	175	9	177	12	163	8	*	*	*	*	*	10	173
01:00	10	139	7	120	12	148	2	154	12	*	*	*	*	*	9	140
01:15	11	157	5	120	9	138	9	159	9	*	*	*	*	*	9	144
01:30	9	92	7	131	4	142	6	158	9	*	*	*	*	*	7	131
01:45	2	109	3	144	15	147	8	156	5	*	*	*	*	*	7	139
02:00	4	150	6	112	6	125	2	106	4	*	*	*	*	*	4	123
02:15	3	136	2	143	19	125	8	163	6	*	*	*	*	*	8	142
02:30	0	119	13	146	15	105	4	144	12	*	*	*	*	*	9	128
02:45	7	124	7	149	1	127	8	129	2	*	*	*	*	*	5	132
03:00	4	135	2	126	4	145	6	118	8	*	*	*	*	*	5	131
03:15	2	140	1	122	3	160	5	135	4	*	*	*	*	*	3	139
03:30	6	121	8	157	9	119	5	126	5	*	*	*	*	*	7	131
03:45	7	146	14	155	8	116	4	137	3	*	*	*	*	*	7	138
04:00	6	134	4	112	5	171	11	181	6	*	*	*	*	*	6	150
04:15	4	148	6	139	0	142	8	141	6	*	*	*	*	*	5	142
04:30	14	119	8	148	11	151	14	155	10	*	*	*	*	*	11	143
04:45	27	156	18	150	23	160	17	157	18	*	*	*	*	*	21	156
05:00	20	149	14	135	17	154	17	172	14	*	*	*	*	*	16	152
05:15	20	174	21	153	27	139	27	187	*	*	*	*	*	*	24	163
05:30	22	147	19	169	27	199	32	161	*	*	*	*	*	*	25	169
05:45	31	177	39	158	32	154	48	177	*	*	*	*	*	*	38	166
06:00	47	158	40	156	41	187	55	143	*	*	*	*	*	*	46	161
06:15	51	169	48	196	44	166	56	186	*	*	*	*	*	*	50	179
06:30	71	125	51	150	76	144	79	174	*	*	*	*	*	*	69	148
06:45	79	165	69	128	75	180	91	166	*	*	*	*	*	*	78	160
07:00	62	125	97	155	92	151	101	134	*	*	*	*	*	*	88	141
07:15	122	161	96	122	120	145	131	126	*	*	*	*	*	*	117	138
07:30	134	121	146	87	127	140	139	102	*	*	*	*	*	*	136	112
07:45	127	101	141	129	132	103	160	86	*	*	*	*	*	*	140	105
08:00	123	105	145	102	159	94	178	86	*	*	*	*	*	*	151	97
08:15	168	76	119	119	172	107	155	89	*	*	*	*	*	*	154	98
08:30	130	100	136	84	148	83	136	94	*	*	*	*	*	*	138	90
08:45	132	61	134	74	140	75	137	67	*	*	*	*	*	*	136	69
09:00	126	56	127	84	103	41	124	90	*	*	*	*	*	*	120	68
09:15	133	52	128	72	112	72	92	58	*	*	*	*	*	*	116	64
09:30	121	48	121	65	141	72	111	59	*	*	*	*	*	*	124	61
09:45	115	54	118	50	99	49	116	40	*	*	*	*	*	*	112	48
10:00	96	39	84	51	113	46	109	40	*	*	*	*	*	*	100	44
10:15	87	48	93	45	117	50	100	29	*	*	*	*	*	*	99	43
10:30	116	25	114	32	119	39	105	30	*	*	*	*	*	*	114	32
10:45	113	22	97	35	117	35	133	25	*	*	*	*	*	*	115	29
11:00	112	26	97	30	84	22	130	23	*	*	*	*	*	*	106	25
11:15	115	16	139	33	97	39	101	27	*	*	*	*	*	*	113	29
11:30	132	18	131	24	140	20	118	27	*	*	*	*	*	*	130	22
11:45	139	13	160	21	141	16	153	23	*	*	*	*	*	*	148	18
Total	2908	5322	2879	5466	3012	5595	3090	5591	180	0	0	0	0	0	2972	5491
Day Total	8230		8345		8607		8681		180		0		0		8463	
% Splits	35.3%	64.7%	34.5%	65.5%	35.0%	65.0%	35.6%	64.4%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.1%	64.9%
Peak	08:15	12:00	07:30	05:30	08:00	05:30	07:30	05:00	00:15	-	-	-	-	-	07:45	05:30
Vol.	556	666	551	679	619	706	632	697	48	-	-	-	-	-	583	675
P.H.F.	0.827	0.946	0.943	0.866	0.900	0.887	0.888	0.932	0.706						0.946	0.943

ADT ADT 8,422 AADT 8,422

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000

Latitude: 0' 0.0000 Undefined

Start Time	09-Sep-19		Tue		Wed		Thu		Fri		Sat		Sun		Average Da		
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	
12:00	*	*	*	*	*	*	*	85	5	95	5	74	12	59	7	78	
12:15	*	*	*	*	*	*	*	86	3	93	5	97	10	67	6	86	
12:30	*	*	*	*	*	*	*	100	4	103	8	102	9	59	7	91	
12:45	*	*	*	*	*	*	*	94	4	110	4	94	9	72	6	92	
01:00	*	*	*	*	*	*	*	109	2	101	7	92	3	62	4	91	
01:15	*	*	*	*	*	*	*	86	5	111	1	86	6	74	4	89	
01:30	*	*	*	*	*	*	*	87	2	85	4	88	1	70	2	82	
01:45	*	*	*	*	*	*	*	66	1	90	4	79	2	69	2	76	
02:00	*	*	*	*	*	*	*	71	2	87	3	76	3	58	3	73	
02:15	*	*	*	*	*	*	*	71	4	80	1	63	0	86	2	75	
02:30	*	*	*	*	*	*	*	81	4	81	1	80	1	67	2	77	
02:45	*	*	*	*	*	*	*	68	0	103	2	85	1	87	1	86	
03:00	*	*	*	*	*	*	*	70	0	93	0	72	2	65	1	75	
03:15	*	*	*	*	*	*	*	79	1	60	1	83	0	64	1	72	
03:30	*	*	*	*	*	*	*	70	3	51	3	86	0	53	2	65	
03:45	*	*	*	*	*	*	*	49	1	62	1	80	0	50	1	60	
04:00	*	*	*	*	*	*	*	86	0	76	1	56	3	68	1	72	
04:15	*	*	*	*	*	*	*	74	2	71	2	70	4	64	3	70	
04:30	*	*	*	*	*	*	*	50	1	74	3	66	2	72	2	66	
04:45	*	*	*	*	*	*	*	71	6	117	2	75	5	72	4	84	
05:00	*	*	*	*	*	*	*	99	7	87	1	81	0	73	3	85	
05:15	*	*	*	*	*	*	*	112	9	70	2	66	2	63	4	78	
05:30	*	*	*	*	*	*	*	116	11	95	3	81	2	70	5	90	
05:45	*	*	*	*	*	*	*	118	31	88	9	69	2	57	14	83	
06:00	*	*	*	*	*	*	*	0	94	35	78	7	57	3	57	11	72
06:15	*	*	*	*	*	*	*	0	134	35	57	11	63	2	53	12	77
06:30	*	*	*	*	*	*	*	59	53	55	78	18	51	6	55	34	59
06:45	*	*	*	*	*	*	*	76	67	52	61	19	72	14	49	40	62
07:00	*	*	*	*	*	*	*	70	56	75	74	20	54	7	47	43	58
07:15	*	*	*	*	*	*	*	83	68	74	70	25	52	24	53	52	61
07:30	*	*	*	*	*	*	*	124	58	97	43	22	33	11	56	64	48
07:45	*	*	*	*	*	*	*	107	54	97	50	40	52	25	48	67	51
08:00	*	*	*	*	*	*	*	124	52	95	77	37	43	20	41	69	53
08:15	*	*	*	*	*	*	*	114	49	94	72	43	40	31	38	70	50
08:30	*	*	*	*	*	*	*	115	44	115	46	50	57	28	23	77	42
08:45	*	*	*	*	*	*	*	125	39	102	42	47	36	44	31	80	37
09:00	*	*	*	*	*	*	*	141	36	106	41	55	40	44	18	86	34
09:15	*	*	*	*	*	*	*	88	39	93	35	58	37	51	29	72	35
09:30	*	*	*	*	*	*	*	84	35	81	53	62	17	24	25	63	32
09:45	*	*	*	*	*	*	*	89	33	56	48	53	38	52	20	62	35
10:00	*	*	*	*	*	*	*	65	32	57	45	60	39	53	19	59	34
10:15	*	*	*	*	*	*	*	64	9	72	25	82	33	57	15	69	20
10:30	*	*	*	*	*	*	*	74	21	62	25	90	14	62	12	72	18
10:45	*	*	*	*	*	*	*	60	14	79	20	78	13	72	10	72	14
11:00	*	*	*	*	*	*	*	70	17	78	17	92	20	52	11	73	16
11:15	*	*	*	*	*	*	*	78	7	87	9	79	14	82	11	82	10
11:30	*	*	*	*	*	*	*	77	12	88	16	85	17	62	5	78	12
11:45	*	*	*	*	*	*	*	75	7	119	11	79	20	67	4	85	10
Total	0	0	0	0	0	0	1962	3028	2012	3176	1285	2813	972	2331	1579	2836	
Day Total	0	0	0	0	0	0	4990	5188	4098	3303	4415						
% Splits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	39.3%	60.7%	38.8%	61.2%	31.4%	68.6%	29.4%	70.6%	35.8%	64.2%	
Peak Vol.	-	-	-	-	-	-	08:15	05:30	08:15	00:30	10:15	00:15	10:30	02:15	11:00	00:30	
P.H.F.	-	-	-	-	-	-	0.878	0.862	0.907	0.957	0.929	0.944	0.817	0.876	0.924	0.986	

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 00000000000

Latitude: 0' 0.0000 Undefined

Start Time	16-Sep-19		Tue		Wed		Thu		Fri		Sat		Sun		Average Da	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	3	81	*	*	*	*	*	*	*	*	*	*	*	*	3	81
12:15	1	89	*	*	*	*	*	*	*	*	*	*	*	*	1	89
12:30	5	70	*	*	*	*	*	*	*	*	*	*	*	5	70	
12:45	2	102	*	*	*	*	*	*	*	*	*	*	*	2	102	
01:00	1	77	*	*	*	*	*	*	*	*	*	*	*	1	77	
01:15	1	82	*	*	*	*	*	*	*	*	*	*	*	1	82	
01:30	1	75	*	*	*	*	*	*	*	*	*	*	*	1	75	
01:45	0	68	*	*	*	*	*	*	*	*	*	*	*	0	68	
02:00	0	79	*	*	*	*	*	*	*	*	*	*	*	0	79	
02:15	1	65	*	*	*	*	*	*	*	*	*	*	*	1	65	
02:30	1	73	*	*	*	*	*	*	*	*	*	*	*	1	73	
02:45	0	70	*	*	*	*	*	*	*	*	*	*	*	0	70	
03:00	0	70	*	*	*	*	*	*	*	*	*	*	*	0	70	
03:15	1	68	*	*	*	*	*	*	*	*	*	*	*	1	68	
03:30	0	58	*	*	*	*	*	*	*	*	*	*	*	0	58	
03:45	2	70	*	*	*	*	*	*	*	*	*	*	*	2	70	
04:00	1	67	*	*	*	*	*	*	*	*	*	*	*	1	67	
04:15	3	48	*	*	*	*	*	*	*	*	*	*	*	3	48	
04:30	4	61	*	*	*	*	*	*	*	*	*	*	*	4	61	
04:45	4	69	*	*	*	*	*	*	*	*	*	*	*	4	69	
05:00	3	76	*	*	*	*	*	*	*	*	*	*	*	3	76	
05:15	9	104	*	*	*	*	*	*	*	*	*	*	*	9	104	
05:30	13	136	*	*	*	*	*	*	*	*	*	*	*	13	136	
05:45	23	102	*	*	*	*	*	*	*	*	*	*	*	23	102	
06:00	36	73	*	*	*	*	*	*	*	*	*	*	*	36	73	
06:15	33	88	*	*	*	*	*	*	*	*	*	*	*	33	88	
06:30	49	90	*	*	*	*	*	*	*	*	*	*	*	49	90	
06:45	48	61	*	*	*	*	*	*	*	*	*	*	*	48	61	
07:00	65	59	*	*	*	*	*	*	*	*	*	*	*	65	59	
07:15	80	58	*	*	*	*	*	*	*	*	*	*	*	80	58	
07:30	79	62	*	*	*	*	*	*	*	*	*	*	*	79	62	
07:45	105	56	*	*	*	*	*	*	*	*	*	*	*	105	56	
08:00	118	60	*	*	*	*	*	*	*	*	*	*	*	118	60	
08:15	127	36	*	*	*	*	*	*	*	*	*	*	*	127	36	
08:30	100	58	*	*	*	*	*	*	*	*	*	*	*	100	58	
08:45	119	*	*	*	*	*	*	*	*	*	*	*	*	119	*	
09:00	75	*	*	*	*	*	*	*	*	*	*	*	*	75	*	
09:15	94	*	*	*	*	*	*	*	*	*	*	*	*	94	*	
09:30	92	*	*	*	*	*	*	*	*	*	*	*	*	92	*	
09:45	72	*	*	*	*	*	*	*	*	*	*	*	*	72	*	
10:00	67	*	*	*	*	*	*	*	*	*	*	*	*	67	*	
10:15	66	*	*	*	*	*	*	*	*	*	*	*	*	66	*	
10:30	58	*	*	*	*	*	*	*	*	*	*	*	*	58	*	
10:45	66	*	*	*	*	*	*	*	*	*	*	*	*	66	*	
11:00	60	*	*	*	*	*	*	*	*	*	*	*	*	60	*	
11:15	62	*	*	*	*	*	*	*	*	*	*	*	*	62	*	
11:30	77	*	*	*	*	*	*	*	*	*	*	*	*	77	*	
11:45	73	*	*	*	*	*	*	*	*	*	*	*	*	73	*	
Total	1900	2561	0	0	0	0	0	0	0	0	0	0	0	1900	2561	
Day Total	4461		0		0		0		0		0		0		4461	
% Splits	42.6%	57.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	42.6%	57.4%	
Peak	08:00	05:00	-	-	-	-	-	-	-	-	-	-	-	08:00	05:00	
Vol.	464	418	-	-	-	-	-	-	-	-	-	-	-	464	418	
P.H.F.	0.913	0.768												0.913	0.768	

ADT ADT 4,479 AADT 4,479

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/12/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	0	0	0	3	4	39	114	104	32	6	1	2	0	0	0	305
07:00	0	0	3	14	43	158	241	181	54	6	6	1	0	0	0	707
08:00	0	1	0	19	76	246	256	182	46	6	4	0	0	0	2	838
09:00	0	3	8	27	76	203	247	149	39	11	5	0	0	0	0	768
10:00	0	2	0	8	86	164	230	120	37	5	1	0	0	0	0	653
11:00	0	1	4	22	102	246	267	94	17	5	0	0	0	0	0	758
12 PM	0	18	59	121	233	308	207	59	6	1	0	0	0	0	0	1012
13:00	0	4	40	19	123	196	183	38	4	0	0	0	0	0	0	607
14:00	0	1	11	24	37	146	196	60	7	2	0	1	0	0	0	485
15:00	0	5	21	78	136	207	127	50	2	1	0	0	0	0	0	627
16:00	0	16	32	139	182	179	117	20	3	1	0	0	0	0	0	689
17:00	0	6	58	114	288	195	16	0	0	0	0	0	0	0	0	677
18:00	0	9	97	151	154	180	65	7	1	0	0	0	0	0	0	664
19:00	0	0	0	6	43	146	191	72	9	0	0	0	2	0	0	469
20:00	0	0	0	0	17	96	164	54	15	1	0	0	0	0	0	347
21:00	0	0	0	0	7	38	103	82	15	1	0	0	0	0	0	246
22:00	0	0	0	0	0	4	60	63	18	3	2	0	0	0	0	150
23:00	0	0	0	0	0	2	24	50	17	6	1	4	0	0	0	104
Total	0	66	333	745	1607	2753	2808	1385	322	55	20	8	2	0	2	10106

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/13/1																
9	0	0	0	0	0	1	18	18	14	2	0	0	0	0	0	53
01:00	0	0	0	0	0	4	21	14	7	0	0	0	0	0	0	46
02:00	0	0	0	0	0	0	2	8	1	7	0	0	0	0	0	18
03:00	0	0	0	0	0	1	0	13	5	2	0	0	0	0	0	21
04:00	0	0	0	0	0	0	1	11	18	18	3	0	0	0	0	51
05:00	0	0	0	0	3	2	38	33	14	2	3	0	0	0	0	95
06:00	0	0	0	1	5	6	71	121	48	8	3	0	1	0	0	264
07:00	0	0	0	1	13	133	156	125	32	3	1	0	0	0	0	464
08:00	0	0	6	11	38	150	245	73	18	1	0	0	0	0	0	542
09:00	0	0	0	7	42	132	179	95	19	3	0	0	0	1	0	478
10:00	0	0	0	5	45	146	163	55	10	2	0	0	0	0	0	426
11:00	0	1	2	28	72	193	197	39	4	5	0	1	0	0	0	542
12 PM	0	5	45	58	222	328	115	19	7	0	0	0	0	0	0	799
13:00	0	4	11	31	170	184	134	39	4	1	3	0	0	0	0	581
14:00	0	13	33	161	207	227	51	22	3	0	0	1	0	0	0	718
15:00	0	2	6	42	144	201	163	41	2	0	0	0	1	0	0	602
16:00	0	8	34	75	202	232	88	10	1	0	0	0	0	0	0	650
17:00	0	26	54	138	143	148	77	15	2	0	0	0	0	0	0	603
18:00	0	12	40	86	150	279	114	23	5	0	4	0	0	0	0	713
19:00	0	0	0	5	66	174	187	25	10	1	0	0	0	0	0	468
20:00	0	0	1	1	16	118	144	49	6	3	0	0	0	0	0	338
21:00	0	0	0	1	5	53	114	83	27	4	1	0	0	0	0	288
22:00	0	0	0	1	2	17	85	68	31	9	1	0	0	0	0	214
23:00	0	1	1	2	0	4	52	54	19	3	0	0	0	0	0	136
Total	0	72	233	654	1545	2733	2415	1053	307	74	19	2	2	1	0	9110

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/14/1																
9	0	0	0	0	0	3	8	43	15	7	11	1	0	0	0	88
01:00	0	0	0	0	0	3	14	22	16	1	0	0	0	0	0	56
02:00	0	0	0	0	0	0	10	16	25	3	0	0	0	0	0	54
03:00	0	0	0	0	0	2	3	15	4	3	2	0	0	0	0	29
04:00	0	0	0	0	0	0	1	9	9	3	0	0	0	0	0	22
05:00	0	0	0	0	1	1	4	15	37	6	6	1	0	0	0	71
06:00	0	0	0	0	0	12	37	52	29	11	9	1	0	0	0	151
07:00	0	0	0	0	2	30	115	98	37	12	3	0	0	0	0	297
08:00	0	0	0	0	7	74	142	92	30	6	1	0	0	0	0	352
09:00	0	1	1	7	13	112	199	91	18	3	0	0	0	0	0	445
10:00	0	0	1	4	42	180	215	67	12	5	0	0	0	0	0	526
11:00	0	0	2	8	93	222	174	43	16	0	0	1	0	0	0	559
12 PM	0	6	11	32	143	240	171	30	5	1	0	0	0	0	0	639
13:00	0	4	5	34	124	305	167	36	4	0	6	0	0	0	0	685
14:00	0	3	10	12	77	187	222	50	6	4	0	0	0	0	0	571
15:00	0	0	3	11	56	221	184	48	9	1	0	0	6	0	0	539
16:00	0	0	0	0	22	191	239	37	8	2	0	0	0	0	0	499
17:00	0	0	0	4	38	171	174	78	20	2	1	0	0	0	0	488
18:00	0	0	0	0	23	152	210	66	23	2	0	0	0	0	0	476
19:00	0	0	0	3	20	80	176	68	18	3	0	1	0	0	2	371
20:00	0	0	0	1	3	64	137	54	11	6	2	0	0	0	0	278
21:00	0	0	0	0	6	32	115	70	14	2	1	0	0	0	0	240
22:00	0	0	0	0	0	11	67	77	18	2	0	0	0	0	0	175
23:00	0	0	0	0	0	4	61	70	9	0	0	0	0	0	0	144
Total	0	14	33	116	670	2297	2845	1247	393	85	42	5	6	0	2	7755

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	Total
09/15/1																
9	0	0	0	0	0	5	20	59	8	3	0	0	0	0	0	95
01:00	0	0	0	0	0	2	12	31	10	2	0	0	0	0	0	57
02:00	0	0	0	0	0	1	10	16	12	2	0	0	0	0	0	41
03:00	0	0	0	0	0	2	1	16	2	0	0	0	0	0	0	21
04:00	0	0	0	0	0	0	7	15	1	1	0	0	0	0	0	24
05:00	0	0	2	0	0	1	5	12	14	4	0	0	0	0	0	38
06:00	0	0	0	1	0	5	21	33	9	6	2	0	0	0	0	77
07:00	0	0	0	0	0	5	40	69	23	14	2	1	0	0	0	154
08:00	0	0	0	0	4	13	61	114	49	8	2	0	0	0	0	251
09:00	0	0	0	0	8	48	117	108	33	6	1	0	0	0	0	321
10:00	0	1	4	2	9	81	168	88	28	5	1	0	0	0	0	387
11:00	0	0	0	1	25	159	194	97	25	3	0	0	0	0	0	504
12 PM	0	0	0	6	45	167	213	68	20	3	0	0	0	0	0	522
13:00	0	1	3	7	62	175	181	72	16	1	0	0	0	0	0	518
14:00	0	0	0	6	24	122	212	78	17	5	0	0	0	0	0	464
15:00	0	0	0	4	29	108	178	89	29	3	1	0	0	0	0	441
16:00	0	0	0	0	18	78	157	130	24	3	0	0	0	0	0	410
17:00	0	0	1	1	36	108	217	79	26	6	2	0	0	0	0	476
18:00	0	0	0	2	31	106	207	82	28	3	1	0	0	0	0	460
19:00	0	0	0	0	12	80	168	74	20	5	0	0	0	0	0	359
20:00	0	0	0	0	3	65	107	52	19	3	0	0	0	0	0	249
21:00	0	0	0	1	0	11	82	71	29	3	1	0	0	0	0	198
22:00	0	0	0	0	1	3	33	60	20	2	1	0	0	0	0	120
23:00	0	0	0	0	0	1	15	32	21	2	0	0	0	0	0	71
Total	0	2	10	31	307	1346	2426	1545	483	93	14	1	0	0	0	6258

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/16/1																
9	0	0	0	0	1	2	19	15	10	0	0	0	0	0	0	47
01:00	0	0	0	0	2	1	9	11	8	1	0	0	0	0	0	32
02:00	0	0	0	0	0	0	0	13	1	0	0	0	0	0	0	14
03:00	0	0	0	0	0	0	2	10	5	1	0	1	0	0	0	19
04:00	0	0	0	0	0	1	3	35	6	0	0	0	4	0	0	49
05:00	0	0	0	0	0	13	35	21	19	3	2	0	0	0	0	93
06:00	0	0	0	0	1	32	105	73	26	6	2	0	0	0	1	246
07:00	0	0	1	1	18	134	169	79	37	5	1	0	0	0	0	445
08:00	0	2	4	4	32	169	241	81	15	2	0	0	0	0	0	550
09:00	0	0	0	4	41	143	240	53	11	1	0	0	0	2	0	495
10:00	0	0	0	3	15	124	209	46	10	1	0	0	2	0	0	410
11:00	0	2	4	9	54	176	169	76	7	1	0	0	0	0	0	498
12 PM	0	1	6	43	97	229	226	58	5	1	0	0	0	0	0	666
13:00	0	0	0	6	88	162	188	40	8	0	0	0	0	3	0	495
14:00	0	3	4	9	71	219	170	43	8	0	0	0	0	0	0	527
15:00	0	7	17	33	109	221	122	28	4	1	0	0	0	0	0	542
16:00	0	17	15	25	100	154	180	58	8	0	0	0	0	0	0	557
17:00	0	30	99	165	273	68	10	1	1	0	0	0	0	0	0	647
18:00	0	7	38	61	125	221	121	30	10	0	1	0	0	0	0	614
19:00	0	0	9	14	46	204	163	55	11	4	0	0	0	0	0	506
20:00	0	0	0	0	7	83	167	66	17	2	0	0	0	0	0	342
21:00	0	0	0	1	9	26	92	63	10	5	3	1	0	0	0	210
22:00	0	0	0	0	0	11	40	66	15	1	1	0	0	0	0	134
23:00	0	0	0	0	0	1	17	34	16	5	0	0	0	0	0	73
Total	0	69	197	378	1089	2394	2697	1055	268	40	10	2	6	5	1	8211

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/17/1																
9	0	0	0	0	1	2	13	25	3	0	0	0	0	0	0	44
01:00	0	0	0	0	0	1	4	10	7	0	0	0	0	0	0	22
02:00	0	0	0	0	0	0	6	20	1	1	0	0	0	0	0	28
03:00	0	0	0	0	0	0	11	0	12	1	1	0	0	0	0	25
04:00	0	0	0	0	0	0	2	15	18	1	0	0	0	0	0	36
05:00	0	0	0	0	0	3	23	43	17	5	2	0	0	0	0	93
06:00	0	0	0	0	7	20	57	79	36	2	0	0	0	7	0	208
07:00	0	1	0	0	8	152	150	124	32	4	0	2	0	0	0	473
08:00	0	1	2	8	26	199	233	49	16	0	0	0	0	0	0	534
09:00	0	0	2	7	48	142	181	85	24	4	1	0	0	0	0	494
10:00	0	0	0	1	35	104	164	70	13	1	0	0	0	0	0	388
11:00	0	0	0	5	86	181	183	51	17	4	0	0	0	0	0	527
12 PM	0	7	16	34	103	207	191	58	11	0	0	5	0	0	0	632
13:00	0	1	8	21	55	196	192	34	6	2	0	0	0	0	0	515
14:00	0	1	14	37	79	213	161	36	6	0	3	0	0	0	0	550
15:00	0	5	13	29	132	209	139	18	11	2	2	0	0	0	0	560
16:00	0	8	13	20	117	207	148	24	8	0	0	0	0	0	0	545
17:00	0	39	57	158	191	125	43	2	0	0	0	0	0	0	0	615
18:00	0	1	34	137	170	184	74	19	8	0	0	1	0	0	0	628
19:00	0	1	3	15	48	219	149	42	12	4	0	0	0	0	0	493
20:00	0	0	0	3	11	94	195	64	10	0	2	0	0	0	0	379
21:00	0	0	0	1	1	49	137	70	11	2	0	0	0	0	0	271
22:00	0	0	3	0	0	16	85	36	19	3	1	0	0	0	0	163
23:00	0	0	0	0	0	4	30	50	17	6	1	0	0	0	0	108
Total	0	65	165	476	1118	2527	2571	1024	315	42	13	8	0	7	0	8331

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/18/1																
9	0	0	0	0	0	1	10	27	14	4	0	0	0	0	0	56
01:00	0	0	0	0	0	1	6	25	1	7	0	0	0	0	0	40
02:00	0	0	0	0	0	1	26	13	0	1	0	0	0	0	0	41
03:00	0	0	0	0	0	0	8	11	3	1	1	0	0	0	0	24
04:00	0	0	0	0	1	0	8	27	1	2	0	0	0	0	0	39
05:00	0	0	0	0	0	2	10	50	15	5	1	5	0	0	0	88
06:00	0	0	0	0	3	20	91	91	25	5	1	0	0	0	0	236
07:00	0	0	1	3	9	115	169	127	25	13	4	2	1	0	0	469
08:00	0	0	1	2	44	209	283	68	11	1	0	0	0	0	0	619
09:00	0	0	2	7	34	139	206	49	16	2	0	0	0	0	0	455
10:00	0	0	0	3	33	151	192	64	14	4	1	2	0	0	0	464
11:00	0	0	0	0	62	162	169	55	10	2	1	0	0	0	0	461
12 PM	0	7	37	79	171	185	143	22	6	1	1	0	0	0	0	652
13:00	0	4	28	20	63	253	168	33	5	1	0	0	0	0	0	575
14:00	0	11	8	19	96	186	115	36	9	1	1	0	0	0	0	482
15:00	0	9	13	34	145	193	135	8	3	0	0	0	0	0	0	540
16:00	0	15	49	117	162	199	64	12	6	0	0	0	0	0	0	624
17:00	0	34	75	121	193	167	45	9	2	0	0	0	0	0	0	646
18:00	0	6	32	158	191	220	65	3	2	0	0	0	0	0	0	677
19:00	0	0	0	7	69	257	164	32	8	2	0	0	0	0	0	539
20:00	0	0	1	5	13	117	149	58	11	3	1	0	0	0	0	358
21:00	0	0	0	0	2	53	125	36	13	3	2	0	0	0	0	234
22:00	0	0	0	0	0	4	57	63	37	8	1	0	0	0	0	170
23:00	0	0	0	0	0	3	8	46	22	7	4	0	0	0	1	91
Total	0	86	247	575	1291	2638	2416	965	259	73	19	9	1	0	1	8580

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/19/1																
9	0	0	0	0	0	4	10	17	3	2	0	2	0	0	0	38
01:00	0	0	0	0	0	3	4	2	4	0	3	9	0	0	0	25
02:00	0	0	0	0	0	0	11	9	2	0	0	0	0	0	0	22
03:00	0	0	0	0	0	0	17	1	2	0	0	0	0	0	0	20
04:00	0	0	0	0	1	1	22	16	9	0	1	0	0	0	0	50
05:00	0	0	0	0	0	3	27	55	34	4	0	1	0	0	0	124
06:00	0	0	0	2	0	41	104	87	40	5	2	0	0	0	0	281
07:00	0	0	0	2	20	128	244	113	19	3	1	1	0	0	0	531
08:00	0	13	7	14	52	172	246	81	19	1	1	0	0	0	0	606
09:00	0	2	0	5	12	147	175	69	22	0	0	7	0	0	0	439
10:00	0	0	1	5	33	159	185	60	4	0	0	0	0	0	0	447
11:00	0	1	2	3	55	183	182	56	14	6	0	0	0	0	0	502
12 PM	0	3	16	24	115	238	210	39	3	1	0	0	0	0	0	649
13:00	0	4	9	51	111	248	163	33	6	1	0	0	1	0	0	627
14:00	0	3	5	25	103	185	157	53	7	3	1	0	0	0	0	542
15:00	0	10	8	28	112	194	123	30	9	0	2	0	0	0	0	516
16:00	0	6	24	65	192	215	108	15	6	3	0	0	0	0	0	634
17:00	0	30	83	190	209	138	37	10	0	0	0	0	0	0	0	697
18:00	0	6	26	108	220	238	51	15	3	0	0	0	0	0	0	667
19:00	0	1	11	21	80	154	145	29	6	1	0	0	0	0	0	448
20:00	0	0	1	2	28	114	124	55	12	0	0	0	0	0	0	336
21:00	0	0	0	3	14	51	100	61	15	2	1	0	0	0	0	247
22:00	0	0	0	0	0	9	44	46	21	2	2	0	0	0	0	124
23:00	0	0	0	0	0	4	25	41	22	5	2	1	0	0	0	100
Total	0	79	193	548	1357	2629	2514	993	282	39	16	21	1	0	0	8672

Tri-State Traffic Data, Inc
 184 Baker Rd
 Coatesville, PA 19320

Site Code: ,CT MAIN AVE
 Station ID: 000000000000
 41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 North

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/20/1																
9	0	0	0	0	0	1	17	13	16	0	0	0	0	0	0	47
01:00	0	0	0	0	0	2	6	17	8	1	1	0	0	0	0	35
02:00	0	0	0	0	0	0	9	11	4	0	0	0	0	0	0	24
03:00	0	0	0	0	0	1	2	10	5	2	0	0	0	0	0	20
04:00	0	0	0	0	0	1	4	18	14	3	0	0	0	0	0	40
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	5	38	69	47	6	1	0	0	0	0	166
Grand Total	0	453	1411	3523	8984	19322	20730	9336	2676	507	154	56	18	13	6	67189

Stats

15th Percentile : 22 MPH
 50th Percentile : 29 MPH
 85th Percentile : 36 MPH
 95th Percentile : 40 MPH

Mean Speed(Average) : 30 MPH
 10 MPH Pace Speed : 26-35 MPH
 Number in Pace : 40052
 Percent in Pace : 59.6%
 Number of Vehicles > 55 MPH : 93
 Percent of Vehicles > 55 MPH : 0.1%

Tri-State Traffic Data, Inc
 184 Baker Rd
 Coatesville, PA 19320

Site Code: ,CT MAIN AVE
 Station ID: 000000000000
 41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 South

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/12/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	0	0	0	0	1	3	33	44	33	12	8	0	0	1	0	135
07:00	0	3	10	21	65	87	87	89	16	5	1	0	0	0	0	384
08:00	0	19	50	45	67	100	99	77	14	4	0	3	0	0	0	478
09:00	0	20	57	27	29	42	90	65	50	11	4	7	0	0	0	402
10:00	0	0	1	8	6	48	91	68	33	5	2	1	0	0	0	263
11:00	0	0	0	2	10	52	104	89	34	9	0	0	0	0	0	300
12 PM	0	1	19	23	53	99	107	46	13	4	0	0	0	0	0	365
13:00	0	1	10	12	45	84	94	85	14	2	1	0	0	0	0	348
14:00	0	0	0	6	12	46	116	73	29	5	4	0	0	0	0	291
15:00	0	0	2	7	11	38	92	99	13	3	3	0	0	0	0	268
16:00	0	0	5	9	19	51	112	63	17	4	0	0	0	0	1	281
17:00	0	35	125	115	90	29	31	12	5	0	0	3	0	0	0	445
18:00	0	9	26	67	62	54	77	41	12	0	0	0	0	0	0	348
19:00	0	0	0	4	16	59	90	51	13	1	0	2	0	0	0	236
20:00	0	0	0	1	5	39	63	45	26	4	1	0	0	0	0	184
21:00	0	1	1	1	4	16	50	43	23	3	1	0	0	0	0	143
22:00	0	0	0	0	0	4	21	26	18	1	2	1	0	1	1	75
23:00	0	0	0	0	0	1	4	17	17	2	2	0	0	0	0	43
Total	0	89	306	348	495	852	1361	1033	380	75	29	17	0	2	2	4989

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 South

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/13/1																
9	0	0	0	0	0	0	3	5	5	3	0	0	0	0	0	16
01:00	0	0	0	0	0	2	0	6	2	0	0	0	0	0	0	10
02:00	0	0	0	0	0	1	0	6	3	0	0	0	0	0	0	10
03:00	0	0	0	0	0	2	0	0	2	0	1	0	0	0	0	5
04:00	0	0	0	0	0	1	1	3	2	2	0	0	0	0	0	9
05:00	0	0	0	0	0	0	3	12	29	7	5	2	0	0	0	58
06:00	0	0	0	0	0	1	27	42	66	28	7	6	0	0	0	177
07:00	0	0	4	6	30	64	97	83	37	16	5	0	0	0	1	343
08:00	0	25	24	30	23	66	98	98	33	9	0	0	0	0	0	406
09:00	0	2	14	23	47	68	97	60	19	6	0	0	0	0	0	336
10:00	0	0	1	8	13	49	100	66	24	8	0	1	0	0	0	270
11:00	0	1	5	9	12	89	125	88	30	10	1	2	0	0	0	372
12 PM	0	9	16	41	88	128	88	21	4	5	0	0	0	0	0	400
13:00	0	0	4	10	37	114	155	50	13	4	0	0	0	0	0	387
14:00	0	3	13	35	73	99	73	44	8	0	0	3	0	0	0	351
15:00	0	0	9	21	34	47	94	43	14	2	2	0	0	0	0	266
16:00	0	0	12	46	51	77	93	43	8	1	3	1	0	0	3	338
17:00	0	1	9	15	64	85	99	53	13	1	0	0	0	0	0	340
18:00	0	1	10	16	28	51	87	60	11	6	1	0	3	0	0	274
19:00	0	0	1	5	23	53	69	58	18	8	2	0	0	0	0	237
20:00	0	0	0	8	16	34	98	54	25	1	1	0	0	0	0	237
21:00	0	0	1	0	5	34	55	58	14	4	1	2	0	0	0	174
22:00	0	0	0	2	0	18	41	28	17	8	0	0	1	0	0	115
23:00	0	0	0	0	0	1	15	19	12	4	2	0	0	0	0	53
Total	0	42	123	275	544	1084	1518	1000	409	133	31	17	4	0	4	5184

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: ,CT MAIN AVE
Station ID: 000000000000
41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 South

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/14/1																
9	0	0	0	0	0	1	7	8	5	1	0	0	0	0	0	22
01:00	0	0	0	0	0	0	1	11	2	2	0	0	0	0	0	16
02:00	0	0	0	1	0	0	1	4	0	1	0	0	0	0	0	7
03:00	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	5
04:00	0	0	0	0	0	0	2	1	2	2	1	0	0	0	0	8
05:00	0	0	0	0	0	2	0	6	4	3	0	0	0	0	0	15
06:00	0	0	0	0	0	1	5	22	12	11	2	2	0	0	0	55
07:00	0	0	0	0	4	6	21	33	33	8	2	0	0	0	0	107
08:00	0	0	0	0	0	20	44	56	43	7	6	0	1	0	0	177
09:00	0	0	0	1	7	10	81	86	32	9	2	0	0	0	0	228
10:00	0	0	0	10	21	73	101	72	26	4	1	1	1	0	0	310
11:00	0	0	0	4	17	47	132	107	19	5	4	0	0	0	0	335
12 PM	0	0	5	21	59	85	123	61	12	1	0	0	0	0	0	367
13:00	0	0	3	14	28	95	133	53	17	2	0	0	0	0	0	345
14:00	0	0	0	5	14	53	118	102	12	0	0	0	0	0	0	304
15:00	0	1	5	6	14	72	114	74	24	5	2	0	0	0	0	317
16:00	0	1	3	11	10	44	101	76	15	5	1	0	0	0	0	267
17:00	0	1	0	2	11	40	120	93	22	7	0	0	0	0	0	296
18:00	0	0	0	0	9	32	99	80	19	4	0	0	0	0	0	243
19:00	0	0	0	4	2	36	72	59	15	2	1	0	0	0	0	191
20:00	0	0	2	2	3	27	84	41	10	3	1	0	0	0	0	173
21:00	0	0	0	0	6	33	57	22	11	2	1	0	0	0	0	132
22:00	0	0	0	0	2	12	27	38	16	3	1	0	0	0	0	99
23:00	0	0	0	1	0	3	22	28	15	1	1	0	0	0	0	71
Total	0	3	18	82	207	692	1468	1135	366	88	26	3	2	0	0	4090

Tri-State Traffic Data, Inc
 184 Baker Rd
 Coatesville, PA 19320

Site Code: ,CT MAIN AVE
 Station ID: 000000000000
 41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 South

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/15/1																
9	0	0	0	0	0	1	11	10	9	7	2	0	0	0	0	40
01:00	0	0	0	0	0	3	3	4	1	1	0	0	0	0	0	12
02:00	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5
03:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	7	5	2	0	0	0	0	0	0	14
05:00	0	0	0	0	0	1	2	1	2	0	0	0	0	0	0	6
06:00	0	0	0	0	1	0	4	7	8	4	1	0	0	0	0	25
07:00	0	0	0	1	0	2	14	23	17	8	2	0	0	0	0	67
08:00	0	0	0	0	0	11	20	32	33	21	5	1	0	0	0	123
09:00	0	0	0	1	2	15	46	56	24	15	4	1	2	0	0	166
10:00	0	0	0	0	3	20	68	91	42	15	0	4	0	0	0	243
11:00	0	0	2	6	17	37	77	73	36	6	6	0	3	0	0	263
12 PM	0	0	1	3	8	28	93	85	28	9	2	0	0	0	0	257
13:00	0	0	1	4	9	29	113	79	33	2	5	0	0	0	0	275
14:00	0	0	2	5	20	34	102	100	25	8	2	0	0	0	0	298
15:00	0	0	2	11	8	37	70	71	26	6	1	0	0	0	0	232
16:00	0	3	2	1	10	46	89	83	31	7	3	0	1	0	0	276
17:00	0	0	0	4	17	38	90	63	37	12	2	0	0	0	0	263
18:00	0	0	1	1	3	34	66	72	24	9	2	0	0	0	0	212
19:00	0	0	0	1	13	41	45	74	20	5	0	2	0	1	0	202
20:00	0	0	0	0	3	11	34	51	19	11	4	0	0	0	0	133
21:00	0	0	0	0	0	7	25	38	13	9	0	0	0	0	0	92
22:00	0	0	0	0	0	5	13	16	17	4	1	0	0	0	0	56
23:00	0	0	0	0	0	0	6	14	6	2	3	0	0	0	0	31
Total	0	3	11	38	114	400	999	1053	454	161	45	8	6	1	0	3293

Tri-State Traffic Data, Inc
 184 Baker Rd
 Coatesville, PA 19320

Site Code: ,CT MAIN AVE
 Station ID: 000000000000
 41.156434, -73.4228

Latitude: 0' 0.0000 Undefined

Direction 1 South

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/16/1																
9	0	0	1	0	0	0	2	6	2	0	0	0	0	0	0	11
01:00	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
04:00	0	0	0	0	0	0	1	2	4	3	2	0	0	0	0	12
05:00	0	0	0	0	0	1	3	13	12	11	6	1	1	0	0	48
06:00	0	0	0	0	1	7	37	74	38	6	2	0	0	1	0	166
07:00	0	1	0	8	20	78	115	77	27	3	0	0	0	0	0	329
08:00	0	5	39	43	106	106	101	52	9	3	0	0	0	0	0	464
09:00	0	3	8	9	26	65	122	67	29	4	0	0	0	0	0	333
10:00	0	1	1	3	13	31	106	77	15	7	3	0	0	0	0	257
11:00	0	0	1	2	6	59	116	54	25	5	1	1	0	0	0	270
12 PM	0	1	1	11	30	98	122	64	12	2	1	0	0	0	0	342
13:00	0	0	1	4	14	42	126	91	19	5	0	0	0	0	0	302
14:00	0	0	2	5	10	49	114	71	28	6	2	0	0	0	0	287
15:00	0	1	1	12	25	75	82	43	22	4	0	0	1	0	0	266
16:00	0	0	2	5	20	55	76	64	16	4	1	0	0	0	0	243
17:00	0	15	62	101	104	73	37	21	3	1	1	0	0	0	0	418
18:00	0	0	3	5	14	47	149	75	15	3	0	1	0	0	0	312
19:00	0	0	1	2	16	40	93	63	14	2	3	0	1	0	0	235
20:00	0	0	0	2	6	22	57	49	12	6	0	0	0	0	0	154
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	27	123	212	411	848	1460	968	304	75	22	3	3	1	0	4457
Grand Total	0	164	581	955	1771	3876	6806	5189	1913	532	153	48	15	4	6	22013

Stats

- 15th Percentile : 24 MPH
- 50th Percentile : 32 MPH
- 85th Percentile : 39 MPH
- 95th Percentile : 44 MPH
- Mean Speed(Average) : 33 MPH
- 10 MPH Pace Speed : 31-40 MPH
- Number in Pace : 11995
- Percent in Pace : 54.5%
- Number of Vehicles > 55 MPH : 73
- Percent of Vehicles > 55 MPH : 0.3%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	12-Sep-19 Thu	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		*	31			*	23				
12:15		*	26			*	26				
12:30		*	21			*	36				
12:45		*	38	0	116	*	31	0	116	0	232
01:00		*	21			*	27				
01:15		*	23			*	27				
01:30		*	21			*	22				
01:45		*	27	0	92	*	22	0	98	0	190
02:00		*	18			*	29				
02:15		*	13			*	19				
02:30		*	24			*	22				
02:45		*	21	0	76	*	24	0	94	0	170
03:00		*	38			*	25				
03:15		*	27			*	24				
03:30		*	27			*	33				
03:45		*	36	0	128	*	22	0	104	0	232
04:00		*	29			*	38				
04:15		*	27			*	40				
04:30		*	24			*	28				
04:45		*	44	0	124	*	53	0	159	0	283
05:00		*	59			*	76				
05:15		*	50			*	87				
05:30		*	57			*	81				
05:45		*	55	0	221	*	84	0	328	0	549
06:00		*	35			*	53				
06:15		*	31			*	40				
06:30		*	18			*	41				
06:45		*	16	0	100	*	17	0	151	0	251
07:00		8	15			11	21				
07:15		12	14			20	24				
07:30		19	4			38	14				
07:45		36	13	75	46	76	11	145	70	220	116
08:00		25	11			63	6				
08:15		26	6			67	10				
08:30		27	4			48	10				
08:45		39	6	117	27	59	6	237	32	354	59
09:00		35	3			33	7				
09:15		31	5			23	5				
09:30		24	2			30	10				
09:45		14	1	104	11	20	4	106	26	210	37
10:00		17	3			15	2				
10:15		20	2			15	2				
10:30		20	3			12	3				
10:45		18	1	75	9	19	2	61	9	136	18
11:00		18	2			20	1				
11:15		18	1			23	1				
11:30		17	1			22	0				
11:45		24	1	77	5	28	1	93	3	170	8
Total		448	955			642	1190			1090	2145
Percent		31.9%	68.1%			35.0%	65.0%			33.7%	66.3%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	13-Sep-19 Fri	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	27			0	28				
12:15		0	33			0	30				
12:30		0	24			1	35				
12:45		1	32	3	116	0	30	1	123	4	239
01:00		0	31			0	23				
01:15		0	36			0	30				
01:30		1	26			0	23				
01:45		0	28	1	121	0	29	0	105	1	226
02:00		0	35			0	35				
02:15		0	23			0	27				
02:30		1	23			0	31				
02:45		0	31	1	112	1	28	1	121	2	233
03:00		0	25			0	31				
03:15		0	26			0	30				
03:30		0	37			0	30				
03:45		0	29	0	117	0	31	0	122	0	239
04:00		0	35			0	22				
04:15		0	35			0	36				
04:30		0	40			0	74				
04:45		2	31	2	141	0	68	0	200	2	341
05:00		1	46			1	99				
05:15		4	49			0	56				
05:30		0	47			0	71				
05:45		3	32	8	174	1	35	2	261	10	435
06:00		2	44			4	32				
06:15		2	23			9	27				
06:30		6	20			3	25				
06:45		11	21	21	108	11	21	27	105	48	213
07:00		10	21			14	20				
07:15		12	19			22	13				
07:30		30	10			34	12				
07:45		32	9	84	59	44	13	114	58	198	117
08:00		24	6			46	6				
08:15		27	3			48	9				
08:30		24	7			47	9				
08:45		40	2	115	18	60	14	201	38	316	56
09:00		32	1			42	6				
09:15		33	3			25	6				
09:30		23	5			25	12				
09:45		19	2	107	11	20	7	112	31	219	42
10:00		21	3			15	4				
10:15		17	0			20	2				
10:30		8	2			24	3				
10:45		11	0	57	5	25	3	84	12	141	17
11:00		22	0			19	4				
11:15		17	0			28	2				
11:30		19	0			20	4				
11:45		27	0	85	0	27	2	94	12	179	12
Total		484	982			636	1188			1120	2170
Percent		33.0%	67.0%			34.9%	65.1%			34.0%	66.0%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	14-Sep-19 Sat	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	20			7	33				
12:15		0	21			1	28				
12:30		1	16			0	22				
12:45		1	28	3	85	1	28	9	111	12	196
01:00		2	22			1	35				
01:15		0	22			2	29				
01:30		2	18			1	21				
01:45		0	14	4	76	0	22	4	107	8	183
02:00		0	14			0	28				
02:15		1	23			0	27				
02:30		0	23			0	18				
02:45		1	19	2	79	1	21	1	94	3	173
03:00		0	20			0	21				
03:15		0	17			0	22				
03:30		0	20			0	15				
03:45		0	16	0	73	0	21	0	79	0	152
04:00		0	17			0	13				
04:15		0	19			0	13				
04:30		0	16			0	18				
04:45		0	23	0	75	0	21	0	65	0	140
05:00		0	14			0	17				
05:15		1	12			1	19				
05:30		1	21			2	22				
05:45		1	17	3	64	0	17	3	75	6	139
06:00		1	10			2	11				
06:15		4	8			0	12				
06:30		3	11			2	12				
06:45		2	8	10	37	3	8	7	43	17	80
07:00		5	6			4	10				
07:15		8	7			3	18				
07:30		9	12			12	5				
07:45		12	7	34	32	9	7	28	40	62	72
08:00		10	7			13	15				
08:15		9	1			6	6				
08:30		16	3			10	7				
08:45		18	5	53	16	14	5	43	33	96	49
09:00		20	4			15	5				
09:15		27	0			10	5				
09:30		24	2			11	5				
09:45		17	2	88	8	12	6	48	21	136	29
10:00		25	0			23	3				
10:15		23	2			12	4				
10:30		16	4			23	3				
10:45		22	0	86	6	26	2	84	12	170	18
11:00		20	0			22	3				
11:15		17	1			19	0				
11:30		19	0			19	3				
11:45		22	0	78	1	21	1	81	7	159	8
Total		361	552			308	687			669	1239
Percent		39.5%	60.5%			31.0%	69.0%			35.1%	64.9%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	15-Sep-19 Sun	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	17			4	22				
12:15		0	14			0	22				
12:30		1	18			2	25				
12:45		0	12	5	61	0	24	6	93	11	154
01:00		0	16			0	18				
01:15		1	23			0	20				
01:30		1	17			0	16				
01:45		0	21	2	77	0	18	0	72	2	149
02:00		0	13			0	16				
02:15		0	14			0	14				
02:30		0	11			0	16				
02:45		0	13	0	51	0	21	0	67	0	118
03:00		0	13			0	18				
03:15		0	13			0	17				
03:30		0	7			0	15				
03:45		0	9	0	42	0	21	0	71	0	113
04:00		0	9			0	11				
04:15		1	15			0	10				
04:30		0	9			0	16				
04:45		0	10	1	43	0	13	0	50	1	93
05:00		0	10			0	18				
05:15		0	15			1	19				
05:30		0	10			1	10				
05:45		0	14	0	49	0	8	2	55	2	104
06:00		0	15			1	17				
06:15		1	14			0	10				
06:30		3	9			0	5				
06:45		5	6	9	44	0	13	1	45	10	89
07:00		4	7			0	11				
07:15		3	11			3	12				
07:30		8	8			5	12				
07:45		9	4	24	30	3	5	11	40	35	70
08:00		12	7			6	8				
08:15		8	6			5	8				
08:30		8	1			8	6				
08:45		9	2	37	16	7	2	26	24	63	40
09:00		12	3			11	6				
09:15		7	3			21	3				
09:30		11	0			5	3				
09:45		16	0	46	6	11	3	48	15	94	21
10:00		13	1			16	2				
10:15		16	1			13	0				
10:30		17	0			16	0				
10:45		19	1	65	3	14	1	59	3	124	6
11:00		18	0			8	0				
11:15		18	0			12	0				
11:30		24	0			14	0				
11:45		20	0	80	0	24	0	58	0	138	0
Total		269	422			211	535			480	957
Percent		38.9%	61.1%			28.3%	71.7%			33.4%	66.6%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	16-Sep-19 Mon	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	39			0	37				
12:15		0	24			0	21				
12:30		1	35			0	32				
12:45		0	17	1	115	0	37	0	127	1	242
01:00		1	31			1	31				
01:15		0	29			0	30				
01:30		0	29			0	27				
01:45		0	17	1	106	0	26	1	114	2	220
02:00		0	22			0	20				
02:15		0	21			0	17				
02:30		1	25			0	16				
02:45		0	24	1	92	0	17	0	70	1	162
03:00		0	16			0	28				
03:15		0	30			1	27				
03:30		0	23			0	24				
03:45		0	30	0	99	0	22	1	101	1	200
04:00		0	34			0	19				
04:15		0	38			0	28				
04:30		0	30			1	31				
04:45		1	45	1	147	0	41	1	119	2	266
05:00		2	44			1	93				
05:15		2	61			3	88				
05:30		0	53			1	80				
05:45		4	39	8	197	0	61	5	322	13	519
06:00		3	30			6	56				
06:15		4	44			2	35				
06:30		7	25			3	34				
06:45		9	24	23	123	9	22	20	147	43	270
07:00		5	15			14	15				
07:15		17	13			35	15				
07:30		20	6			49	16				
07:45		32	11	74	45	55	13	153	59	227	104
08:00		25	13			57	14				
08:15		37	2			70	16				
08:30		32	4			45	9				
08:45		39	3	133	22	47	7	219	46	352	68
09:00		33	4			32	4				
09:15		34	1			29	5				
09:30		30	2			19	4				
09:45		21	1	118	8	18	4	98	17	216	25
10:00		21	1			14	2				
10:15		23	1			25	3				
10:30		19	0			21	0				
10:45		14	0	77	2	14	1	74	6	151	8
11:00		27	2			17	2				
11:15		18	0			26	1				
11:30		16	1			28	0				
11:45		19	0	80	3	32	1	103	4	183	7
Total		517	959			675	1132			1192	2091
Percent		35.0%	65.0%			37.4%	62.6%			36.3%	63.7%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	17-Sep-19 Tue	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	29			0	24				
12:15		0	40			0	29				
12:30		0	21			0	40				
12:45		0	27	0	117	0	18	0	111	0	228
01:00		1	24			0	27				
01:15		0	28			0	23				
01:30		0	11			0	28				
01:45		0	26	1	89	0	24	0	102	1	191
02:00		0	22			0	12				
02:15		0	19			0	30				
02:30		0	28			0	30				
02:45		0	27	0	96	0	26	0	98	0	194
03:00		0	34			0	22				
03:15		0	44			0	25				
03:30		0	35			0	42				
03:45		0	31	0	144	0	27	0	116	0	260
04:00		0	26			0	24				
04:15		0	35			0	30				
04:30		0	33			0	39				
04:45		0	38	0	132	1	36	1	129	1	261
05:00		0	54			1	75				
05:15		4	50			0	81				
05:30		2	53			2	84				
05:45		4	36	10	193	1	69	4	309	14	502
06:00		0	48			3	50				
06:15		7	24			4	38				
06:30		3	36			5	33				
06:45		12	32	22	140	18	28	30	149	52	289
07:00		5	23			9	24				
07:15		21	16			20	17				
07:30		19	7			51	19				
07:45		21	14	66	60	72	10	152	70	218	130
08:00		24	9			62	16				
08:15		36	6			62	7				
08:30		36	6			48	14				
08:45		39	3	135	24	40	2	212	39	347	63
09:00		29	7			29	6				
09:15		27	4			27	10				
09:30		17	2			25	6				
09:45		19	3	92	16	25	6	106	28	198	44
10:00		24	0			19	1				
10:15		22	4			23	6				
10:30		15	0			20	0				
10:45		21	2	82	6	19	1	81	8	163	14
11:00		19	1			19	1				
11:15		19	0			22	1				
11:30		22	0			28	3				
11:45		29	1	89	2	22	0	91	5	180	7
Total		497	1019			677	1164			1174	2183
Percent		32.8%	67.2%			36.8%	63.2%			35.0%	65.0%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	18-Sep-19 Wed	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	34			0	22				
12:15		0	27			0	36				
12:30		0	28			0	35				
12:45		0	27	0	116	0	24	0	117	0	233
01:00		0	30			0	27				
01:15		0	29			0	28				
01:30		0	37			0	29				
01:45		0	26	0	122	0	22	0	106	0	228
02:00		0	23			0	13				
02:15		0	20			0	34				
02:30		0	22			0	22				
02:45		1	19	1	84	0	22	0	91	1	175
03:00		0	31			0	26				
03:15		0	24			0	24				
03:30		0	37			0	31				
03:45		0	32	0	124	0	31	0	112	0	236
04:00		0	27			0	29				
04:15		1	41			0	37				
04:30		0	42			0	36				
04:45		0	35	1	145	0	41	0	143	1	288
05:00		0	68			0	69				
05:15		2	35			1	94				
05:30		2	48			1	60				
05:45		2	36	6	187	5	52	7	275	13	462
06:00		2	38			5	46				
06:15		3	35			5	33				
06:30		6	26			8	35				
06:45		8	25	19	124	12	26	30	140	49	264
07:00		12	18			17	21				
07:15		22	10			35	13				
07:30		20	12			49	16				
07:45		24	10	78	50	74	16	175	66	253	116
08:00		27	11			72	10				
08:15		39	3			51	18				
08:30		29	8			40	8				
08:45		24	8	119	30	31	10	194	46	313	76
09:00		33	5			37	7				
09:15		31	3			16	3				
09:30		24	2			27	4				
09:45		16	1	104	11	21	4	101	18	205	29
10:00		24	0			16	3				
10:15		20	1			17	1				
10:30		15	0			15	1				
10:45		21	1	80	2	11	1	59	6	139	8
11:00		14	1			20	0				
11:15		12	0			12	1				
11:30		17	0			23	0				
11:45		23	1	66	2	13	0	68	1	134	3
Total		474	997			634	1121			1108	2118
Percent		32.2%	67.8%			36.1%	63.9%			34.3%	65.7%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	19-Sep-19 Thu	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	38			3	27				
12:15		1	31			0	29				
12:30		1	32			1	23				
12:45		0	31	2	132	0	35	4	114	6	246
01:00		0	29			1	25				
01:15		0	35			2	32				
01:30		1	20			0	25				
01:45		0	35	1	119	0	27	3	109	4	228
02:00		0	28			0	27				
02:15		0	15			0	24				
02:30		0	18			0	23				
02:45		0	21	0	82	0	39	0	113	0	195
03:00		0	31			0	25				
03:15		0	33			0	24				
03:30		1	25			0	34				
03:45		0	32	1	121	0	23	0	106	1	227
04:00		0	26			0	32				
04:15		0	39			0	32				
04:30		0	31			0	38				
04:45		0	39	0	135	0	47	0	149	0	284
05:00		3	62			1	77				
05:15		2	48			0	86				
05:30		1	35			0	56				
05:45		3	51	9	196	3	69	4	288	13	484
06:00		1	44			4	44				
06:15		3	30			5	37				
06:30		7	24			4	33				
06:45		12	17	23	115	9	20	22	134	45	249
07:00		6	17			12	15				
07:15		13	16			36	13				
07:30		23	9			41	14				
07:45		22	15	64	57	60	19	149	61	213	118
08:00		26	9			58	6				
08:15		33	12			48	10				
08:30		38	6			49	19				
08:45		36	5	133	32	38	13	193	48	326	80
09:00		32	5			28	6				
09:15		31	4			31	7				
09:30		19	3			26	3				
09:45		12	4	94	16	17	5	102	21	196	37
10:00		20	2			16	7				
10:15		26	0			26	2				
10:30		19	1			20	2				
10:45		17	1	82	4	30	2	92	13	174	17
11:00		17	2			17	0				
11:15		18	0			13	1				
11:30		19	0			19	0				
11:45		25	0	79	2	20	0	69	1	148	3
Total		488	1011			638	1157			1126	2168
Percent		32.6%	67.4%			35.5%	64.5%			34.2%	65.8%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 00000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Start Time	20-Sep-19 Fri	Direction 1 East		Hour Totals		Direction 2 West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	*			2	*				
12:15		0	*			0	*				
12:30		0	*			0	*				
12:45		0	*	0	0	1	*	3	0	3	0
01:00		0	*			0	*				
01:15		0	*			0	*				
01:30		0	*			1	*				
01:45		0	*	0	0	0	*	1	0	1	0
02:00		0	*			0	*				
02:15		0	*			0	*				
02:30		0	*			0	*				
02:45		0	*	0	0	0	*	0	0	0	0
03:00		0	*			0	*				
03:15		0	*			0	*				
03:30		0	*			0	*				
03:45		0	*	0	0	0	*	0	0	0	0
04:00		0	*			0	*				
04:15		0	*			0	*				
04:30		0	*			0	*				
04:45		0	*	0	0	0	*	0	0	0	0
05:00		0	*			0	*				
05:15		1	*			1	*				
05:30		3	*			3	*				
05:45		*	*	4	0	*	*	4	0	8	0
06:00		*	*	*	*	*	*	*	*	*	*
06:15		*	*	*	*	*	*	*	*	*	*
06:30		*	*	*	*	*	*	*	*	*	*
06:45		*	*	*	*	*	*	*	*	*	*
07:00		*	*	*	*	*	*	*	*	*	*
07:15		*	*	*	*	*	*	*	*	*	*
07:30		*	*	*	*	*	*	*	*	*	*
07:45		*	*	*	*	*	*	*	*	*	*
08:00		*	*	*	*	*	*	*	*	*	*
08:15		*	*	*	*	*	*	*	*	*	*
08:30		*	*	*	*	*	*	*	*	*	*
08:45		*	*	*	*	*	*	*	*	*	*
09:00		*	*	*	*	*	*	*	*	*	*
09:15		*	*	*	*	*	*	*	*	*	*
09:30		*	*	*	*	*	*	*	*	*	*
09:45		*	*	*	*	*	*	*	*	*	*
10:00		*	*	*	*	*	*	*	*	*	*
10:15		*	*	*	*	*	*	*	*	*	*
10:30		*	*	*	*	*	*	*	*	*	*
10:45		*	*	*	*	*	*	*	*	*	*
11:00		*	*	*	*	*	*	*	*	*	*
11:15		*	*	*	*	*	*	*	*	*	*
11:30		*	*	*	*	*	*	*	*	*	*
11:45		*	*	*	*	*	*	*	*	*	*
Total		4	0			8	0			12	0
Percent		100.0%	0.0%			100.0%	0.0%			100.0%	0.0%
Grand Total		3542	6897			4429	8174			7971	15071
Percent		33.9%	66.1%			35.1%	64.9%			34.6%	65.4%
ADT		ADT 2,884				AADT 2,884					

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Direction 1 East

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/13/1																
9	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
05:00	0	0	0	2	0	4	2	0	0	0	0	0	0	0	0	8
06:00	0	0	0	2	11	5	3	0	0	0	0	0	0	0	0	21
07:00	0	0	0	2	37	37	8	0	0	0	0	0	0	0	0	84
08:00	0	0	3	11	55	31	13	1	1	0	0	0	0	0	0	115
09:00	0	1	5	20	46	29	4	2	0	0	0	0	0	0	0	107
10:00	0	1	2	11	23	13	5	2	0	0	0	0	0	0	0	57
11:00	0	0	8	25	26	23	3	0	0	0	0	0	0	0	0	85
12 PM	0	2	10	44	43	13	4	0	0	0	0	0	0	0	0	116
13:00	0	0	8	47	42	19	4	1	0	0	0	0	0	0	0	121
14:00	0	0	4	32	46	23	7	0	0	0	0	0	0	0	0	112
15:00	0	1	3	37	45	25	6	0	0	0	0	0	0	0	0	117
16:00	0	0	12	38	61	25	5	0	0	0	0	0	0	0	0	141
17:00	0	0	17	75	56	22	3	1	0	0	0	0	0	0	0	174
18:00	0	0	4	29	48	23	4	0	0	0	0	0	0	0	0	108
19:00	0	0	2	15	29	11	2	0	0	0	0	0	0	0	0	59
20:00	0	0	0	6	9	3	0	0	0	0	0	0	0	0	0	18
21:00	0	0	0	1	6	4	0	0	0	0	0	0	0	0	0	11
22:00	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	5
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	79	397	589	313	75	7	1	0	0	0	0	0	0	1466

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Direction 1 East

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/14/1																
9	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	3
06:00	0	0	1	1	1	5	2	0	0	0	0	0	0	0	0	10
07:00	0	0	0	4	13	12	4	0	1	0	0	0	0	0	0	34
08:00	0	0	1	0	26	19	6	1	0	0	0	0	0	0	0	53
09:00	0	0	4	8	37	28	10	1	0	0	0	0	0	0	0	88
10:00	0	0	3	18	37	22	5	1	0	0	0	0	0	0	0	86
11:00	0	0	5	17	29	18	6	3	0	0	0	0	0	0	0	78
12 PM	0	0	3	15	40	20	6	1	0	0	0	0	0	0	0	85
13:00	0	0	2	14	30	26	4	0	0	0	0	0	0	0	0	76
14:00	0	0	2	20	28	24	5	0	0	0	0	0	0	0	0	79
15:00	0	1	3	14	31	20	4	0	0	0	0	0	0	0	0	73
16:00	0	0	2	15	31	20	7	0	0	0	0	0	0	0	0	75
17:00	0	0	0	9	37	17	1	0	0	0	0	0	0	0	0	64
18:00	0	0	1	4	18	13	1	0	0	0	0	0	0	0	0	37
19:00	0	0	2	5	17	5	1	2	0	0	0	0	0	0	0	32
20:00	0	0	0	1	8	6	1	0	0	0	0	0	0	0	0	16
21:00	0	0	1	3	1	3	0	0	0	0	0	0	0	0	0	8
22:00	0	0	0	1	3	2	0	0	0	0	0	0	0	0	0	6
23:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	1	30	150	393	264	65	9	1	0	0	0	0	0	0	913

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Direction 1 East

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	Total
09/18/1																
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	6
06:00	0	0	0	3	12	2	2	0	0	0	0	0	0	0	0	19
07:00	0	0	0	17	34	24	3	0	0	0	0	0	0	0	0	78
08:00	0	0	8	15	55	30	10	0	1	0	0	0	0	0	0	119
09:00	0	1	8	22	41	28	2	1	0	0	0	0	0	0	0	103
10:00	0	0	6	21	36	14	3	0	0	0	0	0	0	0	0	80
11:00	0	1	5	15	33	11	0	1	0	0	0	0	0	0	0	66
12 PM	0	0	10	36	42	24	4	0	0	0	0	0	0	0	0	116
13:00	0	2	13	46	47	12	2	0	0	0	0	0	0	0	0	122
14:00	0	1	8	22	32	16	5	0	0	0	0	0	0	0	0	84
15:00	0	0	10	38	49	22	4	1	0	0	0	0	0	0	0	124
16:00	0	2	9	53	60	16	4	1	0	0	0	0	0	0	0	145
17:00	0	1	25	63	70	27	1	0	0	0	0	0	0	0	0	187
18:00	0	0	16	46	44	18	0	0	0	0	0	0	0	0	0	124
19:00	0	0	0	10	24	13	3	0	0	0	0	0	0	0	0	50
20:00	0	0	0	6	13	7	3	1	0	0	0	0	0	0	0	30
21:00	0	0	1	0	9	1	0	0	0	0	0	0	0	0	0	11
22:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
Total	0	8	119	414	607	270	46	5	1	0	0	0	0	0	0	1470

Tri-State Traffic Data, Inc
 184 Baker Rd
 Coatesville, PA 19320

Site Code: K,CT KENT RD
 Station ID: 000000000000
 41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Direction 1 East

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/20/1																
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	54	679	2865	3999	2306	481	50	4	0	0	0	0	0	0	10438

Stats

15th Percentile : 16 MPH
 50th Percentile : 22 MPH
 85th Percentile : 27 MPH
 95th Percentile : 30 MPH

Mean Speed(Average) : 23 MPH
 10 MPH Pace Speed : 16-25 MPH
 Number in Pace : 6864
 Percent in Pace : 65.8%
 Number of Vehicles > 55 MPH : 0
 Percent of Vehicles > 55 MPH : 0.0%

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Direction 2 West

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	Total
09/16/1																
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	2	2	0	1	0	0	0	0	0	0	0	0	5
06:00	0	0	0	7	8	5	0	0	0	0	0	0	0	0	0	20
07:00	0	1	9	26	62	36	16	2	1	0	0	0	0	0	0	153
08:00	0	0	14	60	96	43	4	2	0	0	0	0	0	0	0	219
09:00	0	1	5	33	40	14	5	0	0	0	0	0	0	0	0	98
10:00	0	2	5	26	24	13	4	0	0	0	0	0	0	0	0	74
11:00	0	0	0	22	61	17	2	1	0	0	0	0	0	0	0	103
12 PM	0	1	6	33	46	33	7	1	0	0	0	0	0	0	0	127
13:00	0	0	3	29	58	22	2	0	0	0	0	0	0	0	0	114
14:00	0	0	2	12	29	23	4	0	0	0	0	0	0	0	0	70
15:00	0	0	1	17	50	25	8	0	0	0	0	0	0	0	0	101
16:00	0	0	2	17	48	43	8	1	0	0	0	0	0	0	0	119
17:00	0	0	3	31	133	131	20	3	1	0	0	0	0	0	0	322
18:00	0	1	1	24	75	33	13	0	0	0	0	0	0	0	0	147
19:00	0	0	1	13	18	22	4	1	0	0	0	0	0	0	0	59
20:00	0	0	1	2	23	14	6	0	0	0	0	0	0	0	0	46
21:00	0	0	1	1	7	4	3	1	0	0	0	0	0	0	0	17
22:00	0	0	0	1	3	0	2	0	0	0	0	0	0	0	0	6
23:00	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	4
Total	0	6	54	357	787	480	109	12	2	0	0	0	0	0	0	1807

Tri-State Traffic Data, Inc

184 Baker Rd
Coatesville, PA 19320

Site Code: K,CT KENT RD
Station ID: 000000000000
41.163672, -73.419448

Latitude: 0' 0.0000 Undefined

Direction 2 West

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	Total
09/19/1																
9	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4
06:00	0	0	1	8	8	3	1	0	1	0	0	0	0	0	0	22
07:00	0	0	4	44	53	35	12	1	0	0	0	0	0	0	0	149
08:00	0	1	5	59	77	38	13	0	0	0	0	0	0	0	0	193
09:00	0	2	6	25	40	26	3	0	0	0	0	0	0	0	0	102
10:00	0	0	8	23	39	17	4	1	0	0	0	0	0	0	0	92
11:00	0	0	4	12	35	17	1	0	0	0	0	0	0	0	0	69
12 PM	0	0	7	30	53	16	8	0	0	0	0	0	0	0	0	114
13:00	0	0	7	33	47	18	4	0	0	0	0	0	0	0	0	109
14:00	0	0	2	19	52	32	7	1	0	0	0	0	0	0	0	113
15:00	0	0	0	16	47	32	11	0	0	0	0	0	0	0	0	106
16:00	0	0	0	19	43	69	15	3	0	0	0	0	0	0	0	149
17:00	0	0	2	35	115	111	23	1	1	0	0	0	0	0	0	288
18:00	0	0	5	25	49	37	17	1	0	0	0	0	0	0	0	134
19:00	0	0	1	8	34	17	1	0	0	0	0	0	0	0	0	61
20:00	0	0	2	10	16	13	7	0	0	0	0	0	0	0	0	48
21:00	0	0	1	5	8	6	1	0	0	0	0	0	0	0	0	21
22:00	0	0	2	0	8	3	0	0	0	0	0	0	0	0	0	13
23:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	3	57	371	728	494	131	8	2	1	0	0	0	0	0	1795

Tri-State Traffic Data, Inc
 184 Baker Rd
 Coatesville, PA 19320

Site Code: K,CT KENT RD
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 41.163672, -73.419448

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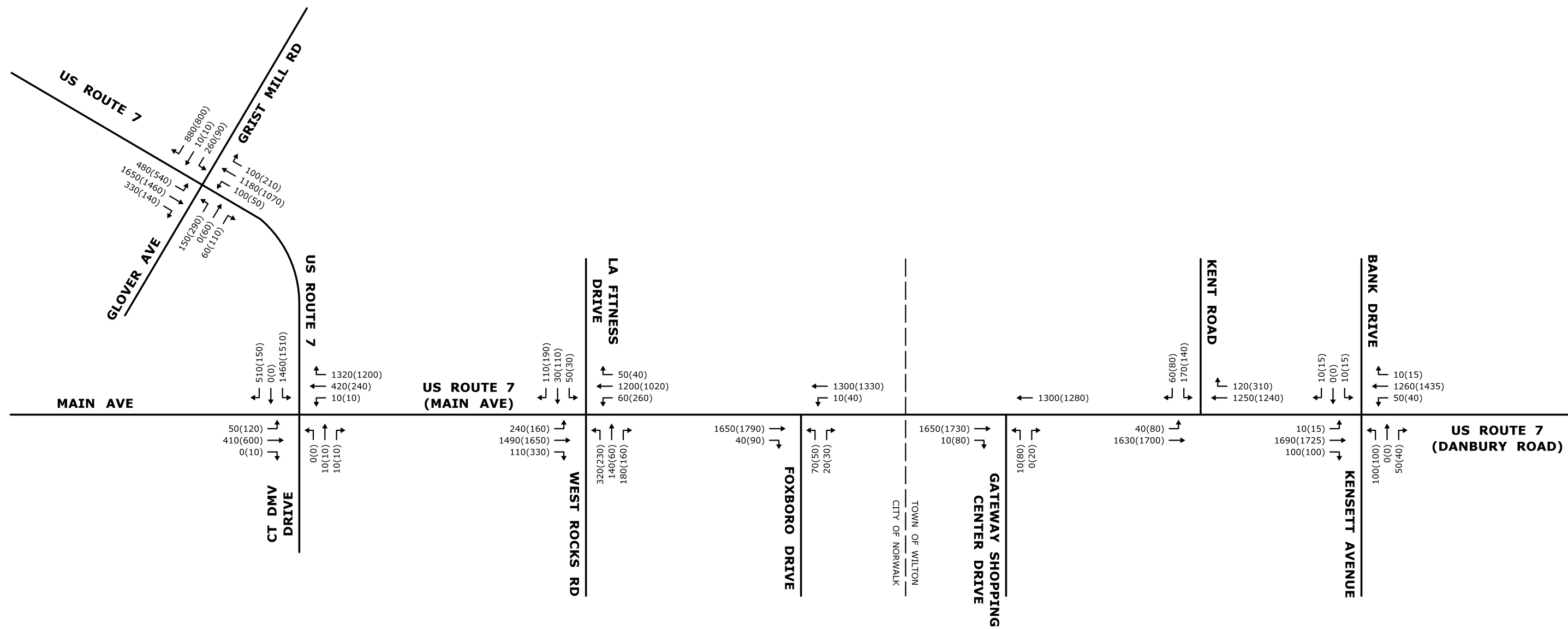
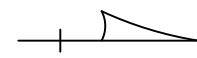
Direction 2 West

Start Time	0	6	11	16	21	26	31	36	41	46	51	56	61	66	71	Total
Time	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
09/20/1																
9	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	2	0	1	1	0	0	0	0	0	0	0	0	4
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	3	1	2	2	0	0	0	0	0	0	0	0	8
Grand Total	0	27	400	2341	5336	3556	851	84	5	1	0	0	0	0	0	12601

Stats	15th Percentile :	18 MPH
	50th Percentile :	23 MPH
	85th Percentile :	28 MPH
	95th Percentile :	31 MPH
	Mean Speed(Average) :	24 MPH
	10 MPH Pace Speed :	21-30 MPH
	Number in Pace :	8892
	Percent in Pace :	70.6%
	Number of Vehicles > 55 MPH :	0
	Percent of Vehicles > 55 MPH :	0.0%



**CTDOT 2025 Background Traffic Volumes
CTDOT E-mail Correspondence**



LEGEND
TRAFFIC VOLUME: AM(PM)

NOTE
1. VOLUMES WERE PROVIDED FOR CTDOT AND BASED ON ALTERNATIVE 21C OF CTDOT PROJECT #102-358 (2025 BUILD YEAR).
2. ROUTE 7 (DANBURY ROAD) @ BANK DRIVE AND KENSETT AVENUE VOLUMES WERE BASED ON SURROUNDING TRIP PATTERNS AND THE ITE TRIP GENERATION MANUAL, 10TH EDITION FOR A DRIVE-THRU BANK, LAND USE CODE 912.

**SCHEMATIC
NOT TO SCALE**

From: Pfaffinger, Marissa <Marissa.Pfaffinger@ct.gov>
Sent: Monday, March 22, 2021 3:31 PM
To: Connell, Andrea <Andrea.CConnell@kimley-horn.com>
Cc: Canning, John <John.Canning@kimley-horn.com>
Subject: RE: 761 Main Avenue, Norwalk - Traffic Study

Hi Andrea,

Regarding your previous question about the 2025 driveway volumes, our design analysis used the 2045 volumes. The purpose of the 2025 volumes was to have a better understanding of when the corridor's traffic operations failed without the additional improvements proposed under PP_102_006 (essentially we recognized that the modification to the end of the Route 7 expressway would push more traffic onto Main Avenue and wanted to have an idea when the proposed changes would become critical). I apologize for not providing more detail about that when I sent them over. And actually, it appears that the 2025 driveway volumes were not adjusted and are the same in the 2045 scenario. **Therefore I would recommend that you use the 2019 driveway counts as you described below for your volumes (Emphasis added).**

Thank you,
Marissa

Marissa L Pfaffinger P.E.

Highway Management Unit
Office: (860) 594-3358
Cell: (860) 375-0659

* Teleworking *
**Email is best **

From: Connell, Andrea
Sent: Wednesday, March 17, 2021 8:48 AM
To: Pfaffinger, Marissa <Marissa.Pfaffinger@ct.gov>
Cc: Canning, John <John.Canning@kimley-horn.com>
Subject: RE: 761 Main Avenue, Norwalk - Traffic Study

Marissa,

Thank you for sending the 2025 No-Build volumes (and no apologies necessary!). I compared the 2025 volumes to intersection counts that we (Kimley-Horn) conducted in September 2019 at the Main Avenue intersection with the iPark driveway and West Rocks Road. The comparison reveals that the 2025 driveway volumes (traffic entering and exiting the iPark driveway) are much higher (49% to 78% higher) than the 2019 counted volumes. This increase is far more (22% to 43% more) than the traffic volumes we are projecting if the iPark proposed hotel and apartments are built.

To understand/resolve this discrepancy, I'd appreciate it if you could provide the derivation of the 2025 No-Build volumes, including:

- Existing volumes (count year)
- Growth rate (annual and/or overall)
- List of all proposed developments whose volumes were included in the No-Build volumes
- Other assumptions

We will use the 2025 No-Build volumes in our upcoming traffic study of proposed expansion to iPark, but are proposing to modify the 2025 No-Build volumes at the iPark driveway so that the iPark volumes are more in line with what we counted in 2019 (our 2019 counts include traffic from the previously approved expansion at iPark - LA Fitness center).

The changes to the movements into and out of the driveway we are proposing are a compromise between using the latest/2019 driveway traffic counts vs using the volumes that you have developed for your study. They have been developed so as not to affect the volumes at the intersections to the north and south of the iPark intersection (as a corresponding adjustment has been made on the Main Avenue through movements to maintain the flows between intersections). Should you wish to modify your study's traffic volumes at this intersection, please let me know and we will give you a detailed breakdown that you can incorporate.

Please see the attached Excel file for the comparison and our recommended changes to the iPark driveway volumes.

Thank you,
Andrea

Andrea M. Connell, RSP, LEED Green Associate
Kimley-Horn | 1 North Lexington Avenue, Suite 505, White Plains, NY 10601
Direct: 914 368 9191

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Crash Records Summary

Danbury Road at Kent Road			Severity	No. of Vehicles	Route	Milemarker	Alpha Description of Crash Location	Collision Type	Weather Condition	Light Condition	Contributing Factor
Crash ID	Date of Crash	Time of Crash									
497650	3/6/2018	14:40:00	Property Damage Only	2	US 7	4.75	25 feet South of Kent Road	Front to rear	Clear	Daylight	None
498286	3/7/2018	9:30:00	Property Damage Only	2	US 7	4.75	25 feet South of Kent Road	Front to rear	Clear	Daylight	None
526682	6/22/2018	9:41:00	Property Damage Only	2	US 7	4.77	68 feet North of Kent Road	Front to rear	Clear	Daylight	None
639462	5/24/2019	16:00:00	Property Damage Only	2	US 7	4.76	at Kent Road	Front to rear	Clear	Daylight	None
650547	6/11/2019	16:10:00	Injury of any type (Serious, Minor, Possible)	3	US 7	4.73	125 feet South of Kent Road	Front to rear	Clear	Daylight	None
803834	9/13/2019	10:54:00	Property Damage Only	2	US 7	4.78	80 feet North of Kent Road	Front to rear	Clear	Daylight	None
435672	9/11/2017	12:08:00	Property Damage Only	2	US 7	4.76	at Kent Road	Front to rear	Clear	Daylight	None
453788	11/16/2017	7:08:00	Property Damage Only	2	US 7	4.76	at Kent Road	Front to rear	Rain	Daylight	None
462704	12/6/2017	11:10:00	Property Damage Only	2	US 7	4.76	at Kent Road	Front to rear	Clear	Daylight	None

Main Avenue at West Rocks Road			Severity	No. of Vehicles	Route	Milemarker	Alpha Description of Crash Location	Collision Type	Weather Condition	Light Condition	Contributing Factor
Crash ID	Date of Crash	Time of Crash									
481721	1/6/2018	9:02:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Daylight	None
493716	2/20/2018	18:36:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Dark-Lighted	None
496174	3/1/2018	18:40:00	Property Damage Only	2	US 7	4.36	100 feet South of West Rocks Road	Unknown	Clear	Dark-Lighted	Unknown
498611	3/9/2018	10:48:00	Injury of any type (Serious, Minor, Possible)	3	US 7	4.38	at West Rocks Road	Other	Clear	Daylight	None
501629	3/23/2018	8:59:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Daylight	None
511778	5/3/2018	14:50:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Sideswipe, opposite direction	Clear	Daylight	None
515851	5/16/2018	19:39:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Rain	Dark-Lighted	Other
527224	6/25/2018	9:33:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Other	Clear	Daylight	None
533322	7/8/2018	1:42:00	Property Damage Only	1	US 7	4.38	at West Rocks Road	Not Applicable	Clear	Dark-Lighted	None
548707	8/30/2018	23:38:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Dark-Lighted	None
559117	10/6/2018	12:52:00	Property Damage Only	2	US 7	4.38	20 feet North of West Rocks Road	Sideswipe, same direction	Cloudy	Daylight	None
562233	10/16/2018	17:00:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Sideswipe, same direction	Clear	Daylight	None
620901	3/23/2019	11:21:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to front	Clear	Daylight	None
627297	4/16/2019	12:51:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Daylight	None
653343	6/19/2019	20:22:00	Property Damage Only	2	US 7	4.4	100 feet North of West Rocks Road	Front to rear	Clear	Dawn	None
682644	9/4/2019	17:58:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Other	Clear	Daylight	None
687667	9/20/2019	19:21:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Sideswipe, same direction	Clear	Dark-Lighted	None
704784	10/25/2019	18:39:00	Property Damage Only	2	US 7	4.39	40 feet North of West Rocks Road	Front to rear	Clear	Dark-Lighted	None
709999	11/12/2019	10:25:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Rain	Daylight	None
726632	12/18/2019	17:47:00	Injury of any type (Serious, Minor, Possible)	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Dark-Lighted	None
347936	1/12/2017	17:27:00	Property Damage Only	3	US 7	4.38	at West Rocks Road	Sideswipe, same direction	Rain	Dark-Lighted	None
402252	6/3/2017	11:10:00	Injury of any type (Serious, Minor, Possible)	2	US 7	4.38	at West Rocks Road	Angle	Clear	Daylight	None
429118	8/17/2017	13:09:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Unknown	Clear	Daylight	Unknown
434884	9/10/2017	10:23:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Daylight	None
478567	12/27/2017	15:40:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Daylight	Unknown
351640	1/25/2017	10:22:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Front to rear	Clear	Daylight	None
690427	9/27/2019	16:49:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Angle	Clear	Daylight	None
722311	12/9/2019	17:43:00	Property Damage Only	2	US 7	4.38	at West Rocks Road	Other	Clear	Dark-Lighted	None

Main Avenue at Grist Mill Road			Severity	No. of Vehicles	Route	Milemarker	Alpha Description of Crash Location	Collision Type	Weather Condition	Light Condition	Contributing Factor
Crash ID	Date of Crash	Time of Crash									
466305	6/14/2017	7:46:00	Property Damage Only	2	Grist Mill Road	0.16	at US Route 7	Front to rear	Clear	Daylight	None
467258	7/14/2017	14:37:00	Property Damage Only	2	Grist Mill Road	0.16	at US Route 7	Sideswipe	Rain	Daylight	None
351623	1/19/2017	19:04:00	Property Damage Only	2	US 7	3.96	at US Route 7-Grist Mill Road	Front to rear	Clear	Dark-Lighted	None
367236	2/23/2017	11:38:00	Property Damage Only	2	US 7	3.96	at Grist Mill Road (local)	Front to rear	Cloudy	Daylight	None
401208	6/23/2017	6:53:00	Property Damage Only	2	US 7	3.96	at US Route 7-Grist Mill Road	Angle	Clear	Daylight	None
401220	6/24/2017	13:33:00	Property Damage Only	2	US 7	3.96	at Grist Mill Road (local)	Front to rear	Clear	Daylight	Other
555645	9/24/2018	10:12:00	Property Damage Only	2	US 7	4.11	at Grist Mill Road	Front to rear	Clear	Daylight	None
447472	10/25/2017	6:59:00	Injury of any type (Serious, Minor, Possible)	2	US 7	4.1	at US Route 7-Main Ave/Grist Mill Road	Angle	Clear	Daylight	None
468040	12/13/2017	10:38:00	Injury of any type (Serious, Minor, Possible)	2	US 7	4.1	at US Route 7-Main Ave/Grist Mill Road	Front to rear	Clear	Daylight	None
365787	3/13/2017	17:33:00	Property Damage Only	2	SR 719	2.02	at US Route 7 (Grist Mill Road)	Sideswipe, same direction	Clear	Daylight	None
475890	12/20/2017	15:31:00	Injury of any type (Serious, Minor, Possible)	2	SR 719	2.02	at US Route 7 (Grist Mill Road)	Angle	Clear	Dark-Lighted	Unknown

Synchro Capacity Analyses

Existing

2022 Background

2022 Combined

2025 Background

2025 Combined

Existing Conditions
3: US Rt 7 & Kent Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	83	34	51	1193	1157	186
Future Volume (vph)	83	34	51	1193	1157	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1728	0	1702	3307	3315	0
Flt Permitted	0.966		0.098			
Satd. Flow (perm)	1728	0	176	3307	3315	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	21				28	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Confl. Peds. (#/hr)		2				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	2%	5%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	124	0	54	1269	1429	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	25.0		15.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effect Green (s)	11.2		66.0	70.0	49.8	
Actuated g/C Ratio	0.12		0.73	0.78	0.55	
v/c Ratio	0.53		0.14	0.49	0.77	
Control Delay	38.5		5.0	1.8	20.1	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	38.5		5.0	1.8	20.1	
LOS	D		A	A	C	
Approach Delay	38.5			1.9	20.1	
Approach LOS	D			A	C	
Queue Length 50th (ft)	57		0	2	300	
Queue Length 95th (ft)	101		m6	72	455	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	404		384	2573	1846	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.31		0.14	0.49	0.77	

Intersection Summary

Area Type: Other
Cycle Length: 90

Existing Conditions
3: US Rt 7 & Kent Rd

AM Peak Hour
05/21/2021

Actuated Cycle Length: 90

Offset: 54 (60%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 12.5

Intersection LOS: B

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 3: US Rt 7 & Kent Rd



Existing Conditions
5: Cannondale Way & Kent Rd

AM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	105	32	75	162	13	12
Future Volume (Veh/h)	105	32	75	162	13	12
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	114	35	82	176	14	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				323		
pX, platoon unblocked						
vC, conflicting volume			149		472	132
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		472	132
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			94		97	99
cM capacity (veh/h)			1445		523	902
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	149	258	27			
Volume Left	0	82	14			
Volume Right	35	0	13			
cSH	1700	1445	655			
Volume to Capacity	0.09	0.06	0.04			
Queue Length 95th (ft)	0	5	3			
Control Delay (s)	0.0	2.8	10.7			
Lane LOS		A	B			
Approach Delay (s)	0.0	2.8	10.7			
Approach LOS			B			
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			33.5%		ICU Level of Service	A
Analysis Period (min)			15			

Existing Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (vph)	17	14	70	259	75	93	149	1145	121	55	1124	24
Future Volume (vph)	17	14	70	259	75	93	149	1145	121	55	1124	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1737	0	1867	1750	0	1660	3307	1452	1695	3350	0
Flt Permitted		0.937		0.734			0.116			0.128		
Satd. Flow (perm)	0	1637	0	1442	1750	0	203	3307	1418	228	3350	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		74							136			2
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			489			1467				2029
Travel Time (s)		15.2			11.1			28.6				39.5
Confl. Peds. (#/hr)	10					10			2	2		
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
Heavy Vehicles (%)	0%	0%	1%	2%	1%	5%	1%	5%	7%	4%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	0	273	177	0	157	1205	127	58	1208	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	20.0	20.0		20.0	20.0		12.0	36.0	36.0	12.0	36.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	6.3	6.3	4.0	6.3	
Act Effct Green (s)		27.0		27.0	27.0		47.1	38.4	38.4	42.3	34.5	
Actuated g/C Ratio		0.30		0.30	0.30		0.52	0.43	0.43	0.47	0.38	
v/c Ratio		0.20		0.63	0.34		0.69	0.85	0.19	0.30	0.94	
Control Delay		12.6		38.8	29.9		30.0	31.8	3.9	12.2	29.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		12.6		38.8	29.9		30.0	31.8	3.9	12.2	29.1	
LOS		B		D	C		C	C	A	B	C	
Approach Delay		12.6			35.3			29.3			28.4	
Approach LOS		B			D			C			C	
Queue Length 50th (ft)		13		130	76		39	303	0	7	84	
Queue Length 95th (ft)		63		#347	#179		#130	#531	33	m16	#525	
Internal Link Dist (ft)		479			409			1387			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		543		433	525		242	1411	682	243	1284	
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		0.20		0.63	0.34		0.65	0.85	0.19	0.24	0.94	

Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Existing Conditions
11: US Rt 7 & Grist Mill Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1143	45	500	3	8	7	123	294	23	18	490	955
Future Volume (vph)	1143	45	500	3	8	7	123	294	23	18	490	955
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%			0%	
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1625	1696	1523	0	3294	0	1752	1745	0	1685	1837	1561
Flt Permitted	0.950	0.956			0.992		0.130			0.563		
Satd. Flow (perm)	1625	1696	1523	0	3294	0	240	1745	0	990	1837	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			305		7			5				643
Link Speed (mph)		25			25			35				35
Link Distance (ft)		676			269			737				1467
Travel Time (s)		18.4			7.3			14.4				28.6
Confl. Peds. (#/hr)									5	5		
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 (%)	5%	0%	2%	0%	0%	0%	2%	3%	0%	0%	0%	0%
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	613	611	515	0	18	0	127	327	0	19	505	985
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	44.0	44.0	10.0	13.0	13.0		10.0	43.0		33.0	33.0	44.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	37.6	37.6	48.7		5.9		39.1	36.8		26.8	26.8	70.8
Actuated g/C Ratio	0.41	0.41	0.53		0.06		0.43	0.40		0.29	0.29	0.77
v/c Ratio	0.92	0.88	0.54		0.08		0.63	0.46		0.07	0.94	0.73
Control Delay	48.0	42.0	6.7		33.2		33.9	23.5		26.6	60.8	5.8
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	48.0	42.0	6.7		33.2		33.9	23.5		26.6	60.8	5.8
LOS	D	D	A		C		C	C		C	E	A
Approach Delay		33.6			33.2			26.4			24.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	312	303	53		3		40	122		7	263	32
Queue Length 95th (ft)	#644	#621	123		15		#105	238		27	#536	218
Internal Link Dist (ft)		596			189			657			1387	
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	667	697	952		291		201	705		289	537	1352
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.92	0.88	0.54		0.06		0.63	0.46		0.07	0.94	0.73

Intersection Summary

Area Type: Other
Cycle Length: 100

Existing Conditions
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	123	74	83	1482	1133	223
Future Volume (vph)	123	74	83	1482	1133	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1747	0	1736	3438	3247	0
Flt Permitted	0.970		0.087			
Satd. Flow (perm)	1747	0	159	3438	3247	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	31				36	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	1%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	205	0	86	1544	1412	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	24.0		16.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	13.0		64.2	68.2	46.7	
Actuated g/C Ratio	0.14		0.71	0.76	0.52	
v/c Ratio	0.73		0.22	0.59	0.83	
Control Delay	46.3		14.9	4.2	23.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	46.3		14.9	4.2	23.8	
LOS	D		B	A	C	
Approach Delay	46.3			4.7	23.8	
Approach LOS	D			A	C	
Queue Length 50th (ft)	96		14	84	347	
Queue Length 95th (ft)	159		m11	m36	453	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	397		398	2603	1702	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.52		0.22	0.59	0.83	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Existing Conditions
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021

Offset: 59 (66%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 15.7

Intersection LOS: B

Intersection Capacity Utilization 66.0%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 3: US Rt 7 & Kent Rd



Existing Conditions
5: Cannondale Way & Kent Rd

PM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			1	2	
Traffic Volume (veh/h)	107	9	10	296	45	90
Future Volume (Veh/h)	107	9	10	296	45	90
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	113	9	11	312	47	95
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				323		
pX, platoon unblocked						
vC, conflicting volume			122		452	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			122		452	118
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		92	90
cM capacity (veh/h)			1417		565	940
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	122	323	142			
Volume Left	0	11	47			
Volume Right	9	0	95			
cSH	1700	1417	770			
Volume to Capacity	0.07	0.01	0.18			
Queue Length 95th (ft)	0	1	17			
Control Delay (s)	0.0	0.3	10.7			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.3	10.7			
Approach LOS			B			
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			37.5%		ICU Level of Service	A
Analysis Period (min)			15			

Existing Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↘		↙	↕	↘	↙	↕	↘
Traffic Volume (vph)	20	71	134	172	31	131	119	1523	280	201	930	20
Future Volume (vph)	20	71	134	172	31	131	119	1523	280	201	930	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1775	0	1885	1717	0	1676	3619	1538	1762	3446	0
Flt Permitted		0.967		0.576			0.150			0.144		
Satd. Flow (perm)	0	1723	0	1143	1717	0	265	3619	1538	267	3446	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		69							136			2
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			557			652				2029
Travel Time (s)		15.2			12.7			12.7				39.5
Confl. Peds. (#/hr)	5					5						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	227	0	174	163	0	120	1538	283	203	959	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	20.0	20.0		20.0	20.0		12.0	36.0	36.0	12.0	36.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	5.8	6.3	4.0	6.3	
Act Effect Green (s)		31.4		31.4	31.4		38.9	30.3	29.8	41.1	30.9	
Actuated g/C Ratio		0.35		0.35	0.35		0.43	0.34	0.33	0.46	0.34	
v/c Ratio		0.35		0.44	0.27		0.54	1.26	0.47	0.81	0.81	
Control Delay		19.5		31.4	25.8		22.5	152.8	15.0	43.9	21.5	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		19.5		31.4	25.8		22.5	152.8	15.0	43.9	21.5	
LOS		B		C	C		C	F	B	D	C	
Approach Delay		19.5			28.7			124.7			25.4	
Approach LOS		B			C			F			C	
Queue Length 50th (ft)		58		69	60		36	~556	61	66	91	
Queue Length 95th (ft)		#185		#230	#155		67	#683	134	m96	#274	
Internal Link Dist (ft)		479			477			572			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		645		398	598		243	1220	600	255	1185	
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		0.35		0.44	0.27		0.49	1.26	0.47	0.80	0.81	

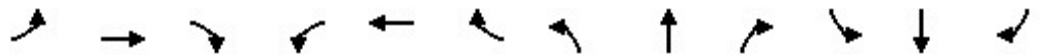
Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Existing Conditions
11: US Rt 7 & Grist Mill Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1326	11	152	32	54	39	202	581	19	7	330	909
Future Volume (vph)	1326	11	152	32	54	39	202	581	19	7	330	909
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%				0%
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1689	1751	1508	0	3262	0	1787	1807	0	1685	1801	1531
Flt Permitted	0.950	0.953			0.987		0.273			0.279		
Satd. Flow (perm)	1689	1751	1508	0	3262	0	514	1807	0	491	1801	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			154		39			2				358
Link Speed (mph)		25			25			35				35
Link Distance (ft)		674			315			506				817
Travel Time (s)		18.4			8.6			9.9				15.9
Confl. Peds. (#/hr)									8	8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	3%	0%	4%	0%	0%	0%	0%	0%	2%	2%
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	669	681	154	0	126	0	204	606	0	7	333	918
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	41.0	41.0	16.0	13.0	13.0		16.0	46.0		30.0	30.0	41.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	34.5	34.5	48.1		7.2		42.0	39.7		24.6	24.6	65.4
Actuated g/C Ratio	0.35	0.35	0.48		0.07		0.42	0.40		0.25	0.25	0.66
v/c Ratio	1.14	1.12	0.19		0.46		0.57	0.84		0.06	0.75	0.81
Control Delay	114.7	106.5	1.9		36.0		25.6	39.3		31.3	47.0	14.7
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	114.7	106.5	1.9		36.0		25.6	39.3		31.3	47.0	14.7
LOS	F	F	A		D		C	D		C	D	B
Approach Delay		99.4			36.0			35.8				23.3
Approach LOS		F			D			D				C
Queue Length 50th (ft)	~530	~532	0		27		83	343		3	200	250
Queue Length 95th (ft)	#758	#762	19		57		136	#540		16	#332	479
Internal Link Dist (ft)		594			235			426				737
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	586	608	821		295		370	723		121	445	1130
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	1.14	1.12	0.19		0.43		0.55	0.84		0.06	0.75	0.81

Intersection Summary

Area Type: Other
Cycle Length: 100



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	35	53	1322	1213	190
Future Volume (vph)	88	35	53	1322	1213	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1728	0	1702	3307	3318	0
Flt Permitted	0.965		0.083			
Satd. Flow (perm)	1728	0	149	3307	3318	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	20				28	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Confl. Peds. (#/hr)		2				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	2%	5%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	131	0	56	1406	1492	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	25.0		15.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	11.3		65.9	69.9	48.3	
Actuated g/C Ratio	0.13		0.73	0.78	0.54	
v/c Ratio	0.56		0.14	0.55	0.83	
Control Delay	39.9		6.2	2.2	23.3	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	39.9		6.2	2.2	23.3	
LOS	D		A	A	C	
Approach Delay	39.9			2.3	23.3	
Approach LOS	D			A	C	
Queue Length 50th (ft)	62		0	3	350	
Queue Length 95th (ft)	107		m6	m74	#544	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	403		391	2567	1793	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.33		0.14	0.55	0.83	

Intersection Summary

Area Type: Other
Cycle Length: 90

Actuated Cycle Length: 90

Offset: 54 (60%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 14.1

Intersection LOS: B

Intersection Capacity Utilization 59.4%

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.

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

Splits and Phases: 3: US Rt 7 & Kent Rd



2022 Background Conditions
5: Cannondale Way & Kent Rd

AM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	
Traffic Volume (veh/h)	110	33	75	155	13	12
Future Volume (Veh/h)	110	33	75	155	13	12
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	36	82	168	14	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			156	470		138
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			156	470		138
tC, single (s)			4.1	6.4		6.3
tC, 2 stage (s)						
tF (s)			2.2	3.5		3.4
p0 queue free %			94	97		99
cM capacity (veh/h)			1436	524		895
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	156	250	27			
Volume Left	0	82	14			
Volume Right	36	0	13			
cSH	1700	1436	654			
Volume to Capacity	0.09	0.06	0.04			
Queue Length 95th (ft)	0	5	3			
Control Delay (s)	0.0	2.8	10.7			
Lane LOS	A		B			
Approach Delay (s)	0.0	2.8	10.7			
Approach LOS	A		B			
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			33.4%	ICU Level of Service		A
Analysis Period (min)			15			

2022 Background Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗		↖	↗	↗	↖	↗	↗
Traffic Volume (vph)	17	14	71	267	76	95	156	1274	128	56	1180	24
Future Volume (vph)	17	14	71	267	76	95	156	1274	128	56	1180	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1735	0	1867	1750	0	1660	3307	1452	1695	3350	0
Flt Permitted		0.937		0.733			0.118			0.132		
Satd. Flow (perm)	0	1635	0	1440	1750	0	206	3307	1418	235	3350	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		75							136			2
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			489			1467				2029
Travel Time (s)		15.2			11.1			28.6				39.5
Confl. Peds. (#/hr)	10					10			2	2		
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
Heavy Vehicles (%)	0%	0%	1%	2%	1%	5%	1%	5%	7%	4%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	281	180	0	164	1341	135	59	1267	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	20.0	20.0		20.0	20.0		12.0	36.0	36.0	12.0	36.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	6.3	6.3	4.0	6.3	
Act Effct Green (s)		27.6		27.6	27.6		46.7	37.8	37.8	41.3	33.5	
Actuated g/C Ratio		0.31		0.31	0.31		0.52	0.42	0.42	0.46	0.37	
v/c Ratio		0.20		0.64	0.34		0.69	0.97	0.20	0.30	1.02	
Control Delay		12.4		38.5	29.5		30.7	44.5	4.4	12.1	43.7	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		12.4		38.5	29.5		30.7	44.5	4.4	12.1	43.7	
LOS		B		D	C		C	D	A	B	D	
Approach Delay		12.4			35.0			39.9			42.3	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)		13		133	76		42	368	0	7	102	
Queue Length 95th (ft)		63		#358	#184		#140	#620	37	m15	#563	
Internal Link Dist (ft)		479			409			1387			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		553		441	537		246	1388	674	244	1247	
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		0.20		0.64	0.34		0.67	0.97	0.20	0.24	1.02	

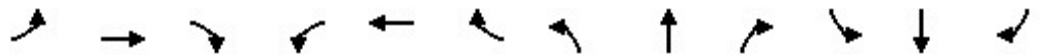
Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2022 Background Conditions
11: US Rt 7 & Grist Mill Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1225	46	509	3	8	7	125	355	23	18	513	996
Future Volume (vph)	1225	46	509	3	8	7	125	355	23	18	513	996
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%			0%	
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1625	1696	1523	0	3294	0	1752	1749	0	1685	1837	1561
Flt Permitted	0.950	0.956			0.992		0.130			0.531		
Satd. Flow (perm)	1625	1696	1523	0	3294	0	240	1749	0	934	1837	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			297		7			4				640
Link Speed (mph)		25			25			35				35
Link Distance (ft)		676			269			737				1467
Travel Time (s)		18.4			7.3			14.4				28.6
Confl. Peds. (#/hr)									5	5		
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 (%)	5%	0%	2%	0%	0%	0%	2%	3%	0%	0%	0%	0%
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	657	653	525	0	18	0	129	390	0	19	529	1027
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	44.0	44.0	10.0	13.0	13.0		10.0	43.0		33.0	33.0	44.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	37.6	37.6	48.7		5.9		39.1	36.8		26.8	26.8	70.8
Actuated g/C Ratio	0.41	0.41	0.53		0.06		0.43	0.40		0.29	0.29	0.77
v/c Ratio	0.99	0.94	0.55		0.08		0.64	0.55		0.07	0.99	0.76
Control Delay	60.6	50.2	7.3		33.2		34.6	25.5		26.7	70.1	6.9
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	60.6	50.2	7.3		33.2		34.6	25.5		26.7	70.1	6.9
LOS	E	D	A		C		C	C		C	E	A
Approach Delay		41.7			33.2			27.8				28.3
Approach LOS		D			C			C				C
Queue Length 50th (ft)	350	337	58		3		41	153		7	280	38
Queue Length 95th (ft)	#710	#685	138		15		#109	291		27	#570	277
Internal Link Dist (ft)		596			189			657			1387	
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	667	697	948		291		201	706		273	537	1351
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.99	0.94	0.55		0.06		0.64	0.55		0.07	0.99	0.76

Intersection Summary

Area Type: Other
Cycle Length: 100



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	127	76	85	1569	1254	230
Future Volume (vph)	127	76	85	1569	1254	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1747	0	1736	3438	3253	0
Flt Permitted	0.970		0.087			
Satd. Flow (perm)	1747	0	159	3438	3253	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	30				33	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	1%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	211	0	89	1634	1546	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	24.0		16.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	13.3		63.9	67.9	46.0	
Actuated g/C Ratio	0.15		0.71	0.75	0.51	
v/c Ratio	0.74		0.22	0.63	0.92	
Control Delay	46.8		15.6	5.2	31.2	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	46.8		15.6	5.2	31.2	
LOS	D		B	A	C	
Approach Delay	46.8			5.7	31.2	
Approach LOS	D			A	C	
Queue Length 50th (ft)	100		16	113	412	
Queue Length 95th (ft)	163		m11	m35	#588	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	396		405	2592	1677	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.53		0.22	0.63	0.92	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 59 (66%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 19.5

Intersection LOS: B

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

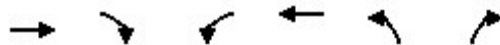
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 3: US Rt 7 & Kent Rd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Volume (veh/h)	111	9	10	304	46	92
Future Volume (Veh/h)	111	9	10	304	46	92
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	117	9	11	320	48	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			126		464	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			126		464	122
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		91	90
cM capacity (veh/h)			1412		556	935
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	126	331	145			
Volume Left	0	11	48			
Volume Right	9	0	97			
cSH	1700	1412	763			
Volume to Capacity	0.07	0.01	0.19			
Queue Length 95th (ft)	0	1	17			
Control Delay (s)	0.0	0.3	10.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.3	10.8			
Approach LOS			B			
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			38.1%	ICU Level of Service	A	
Analysis Period (min)			15			

2022 Background Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↘		↙	↕	↘	↙	↕	↘
Traffic Volume (vph)	20	72	140	179	32	133	123	1611	290	205	1049	20
Future Volume (vph)	20	72	140	179	32	133	123	1611	290	205	1049	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1774	0	1885	1717	0	1676	3619	1538	1762	3446	0
Flt Permitted		0.968		0.568			0.150			0.144		
Satd. Flow (perm)	0	1723	0	1127	1717	0	265	3619	1538	267	3446	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		72							136			2
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			557			652				2029
Travel Time (s)		15.2			12.7			12.7				39.5
Confl. Peds. (#/hr)	5					5						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	234	0	181	166	0	124	1627	293	207	1080	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	20.0	20.0		20.0	20.0		12.0	36.0	36.0	12.0	36.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	5.8	6.3	4.0	6.3	
Act Effect Green (s)		31.4		31.4	31.4		38.9	30.3	29.8	41.1	30.9	
Actuated g/C Ratio		0.35		0.35	0.35		0.43	0.34	0.33	0.46	0.34	
v/c Ratio		0.36		0.46	0.28		0.56	1.34	0.49	0.82	0.91	
Control Delay		19.6		32.1	25.9		23.2	184.8	15.7	41.2	27.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		19.6		32.1	25.9		23.2	184.8	15.7	41.2	27.1	
LOS		B		C	C		C	F	B	D	C	
Approach Delay		19.6			29.1			150.7			29.4	
Approach LOS		B			C			F			C	
Queue Length 50th (ft)		60		72	62		37	~609	66	69	178	
Queue Length 95th (ft)		#192		#242	#165		69	#738	142	m84	m#312	
Internal Link Dist (ft)		479			477			572			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		647		393	598		243	1218	600	255	1183	
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		0.36		0.46	0.28		0.51	1.34	0.49	0.81	0.91	

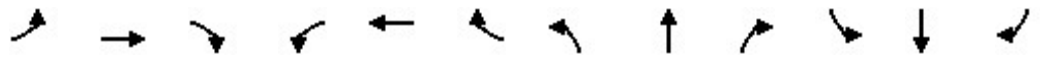
Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2022 Background Conditions
11: US Rt 7 & Grist Mill Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1395	11	155	33	55	40	206	614	19	7	385	986
Future Volume (vph)	1395	11	155	33	55	40	206	614	19	7	385	986
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%				0%
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1689	1751	1508	0	3259	0	1787	1809	0	1685	1801	1531
Flt Permitted	0.950	0.953			0.987		0.190			0.227		
Satd. Flow (perm)	1689	1751	1508	0	3259	0	357	1809	0	400	1801	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			157		40			2				319
Link Speed (mph)		25			25			35				35
Link Distance (ft)		674			315			506				817
Travel Time (s)		18.4			8.6			9.9				15.9
Confl. Peds. (#/hr)									8	8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	3%	0%	4%	0%	0%	0%	0%	0%	2%	2%
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	704	716	157	0	129	0	208	639	0	7	389	996
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	41.0	41.0	16.0	13.0	13.0		16.0	46.0		30.0	30.0	41.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	34.5	34.5	48.2		7.2		42.0	39.7		24.5	24.5	65.3
Actuated g/C Ratio	0.35	0.35	0.49		0.07		0.42	0.40		0.25	0.25	0.66
v/c Ratio	1.20	1.18	0.19		0.47		0.67	0.88		0.07	0.88	0.89
Control Delay	137.4	127.8	1.9		36.2		30.1	43.6		32.1	58.8	22.0
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	137.4	127.8	1.9		36.2		30.1	43.6		32.1	58.8	22.0
LOS	F	F	A		D		C	D		C	E	C
Approach Delay		119.6			36.2			40.3				32.4
Approach LOS		F			D			D				C
Queue Length 50th (ft)	~580	~581	0		28		85	372		3	242	360
Queue Length 95th (ft)	#811	#814	20		58		138	#587		16	#417	#758
Internal Link Dist (ft)		594			235			426				737
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	586	608	823		296		323	724		98	443	1115
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	1.20	1.18	0.19		0.44		0.64	0.88		0.07	0.88	0.89

Intersection Summary

Area Type: Other
Cycle Length: 100



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	94	35	54	1329	1216	195
Future Volume (vph)	94	35	54	1329	1216	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1731	0	1702	3307	3315	0
Flt Permitted	0.965		0.083			
Satd. Flow (perm)	1731	0	149	3307	3315	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	19				28	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Confl. Peds. (#/hr)		2				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	2%	5%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	0	57	1414	1501	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	25.0		15.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	11.5		65.7	69.7	48.1	
Actuated g/C Ratio	0.13		0.73	0.77	0.53	
v/c Ratio	0.58		0.15	0.55	0.84	
Control Delay	41.0		7.1	2.9	23.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	41.0		7.1	2.9	23.9	
LOS	D		A	A	C	
Approach Delay	41.0			3.1	23.9	
Approach LOS	D			A	C	
Queue Length 50th (ft)	65		0	29	361	
Queue Length 95th (ft)	112		m5	m34	#551	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	403		392	2562	1785	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.34		0.15	0.55	0.84	

Intersection Summary

Area Type: Other
Cycle Length: 90

Actuated Cycle Length: 90

Offset: 54 (60%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 14.8

Intersection LOS: B

Intersection Capacity Utilization 60.2%

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.

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

Splits and Phases: 3: US Rt 7 & Kent Rd



2022 Combined Conditions
5: Cannondale Way & Kent Rd

AM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	→			←	↘	↙
Traffic Volume (veh/h)	110	37	81	155	19	19
Future Volume (Veh/h)	110	37	81	155	19	19
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	40	88	168	21	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			160			484 140
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			160			484 140
tC, single (s)			4.1			6.4 6.3
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.4
p0 queue free %			94			96 98
cM capacity (veh/h)			1432			512 892
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	160	256	42			
Volume Left	0	88	21			
Volume Right	40	0	21			
cSH	1700	1432	650			
Volume to Capacity	0.09	0.06	0.06			
Queue Length 95th (ft)	0	5	5			
Control Delay (s)	0.0	3.0	10.9			
Lane LOS			A			B
Approach Delay (s)	0.0	3.0	10.9			
Approach LOS			B			
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization			34.0%	ICU Level of Service	A	
Analysis Period (min)			15			

2022 Combined Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (vph)	25	24	103	267	84	95	168	1275	128	56	1180	28
Future Volume (vph)	25	24	103	267	84	95	168	1275	128	56	1180	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1739	0	1867	1759	0	1660	3307	1452	1695	3350	0
Flt Permitted		0.932		0.664			0.134			0.149		
Satd. Flow (perm)	0	1630	0	1305	1759	0	234	3307	1418	266	3350	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		100							136			3
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			489			1467				2029
Travel Time (s)		15.2			11.1			28.6				39.5
Confl. Peds. (#/hr)	10					10			2	2		
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
Heavy Vehicles (%)	0%	0%	1%	2%	1%	5%	1%	5%	7%	4%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	281	188	0	177	1342	135	59	1271	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	20.0	20.0		20.0	20.0		12.0	36.0	36.0	12.0	36.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	6.3	6.3	4.0	6.3	
Act Effect Green (s)		31.4		31.4	31.4		42.6	33.9	33.9	37.9	30.0	
Actuated g/C Ratio		0.35		0.35	0.35		0.47	0.38	0.38	0.42	0.33	
v/c Ratio		0.25		0.62	0.31		0.76	1.08	0.22	0.29	1.13	
Control Delay		12.1		35.3	26.5		37.8	78.8	4.8	13.2	90.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		12.1		35.3	26.5		37.8	78.8	4.8	13.2	90.2	
LOS		B		D	C		D	E	A	B	F	
Approach Delay		12.1			31.8			68.4			86.8	
Approach LOS		B			C			E			F	
Queue Length 50th (ft)		21		120	70		55	~467	0	8	~432	
Queue Length 95th (ft)		89		#370	#195		#148	#621	37	m15	#565	
Internal Link Dist (ft)		479			409			1387			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		633		455	613		237	1245	618	246	1120	
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		0.25		0.62	0.31		0.75	1.08	0.22	0.24	1.13	






Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Actuated Cycle Length: 90
 Offset: 2 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 67.9 Intersection LOS: E
 Intersection Capacity Utilization 85.5% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: US Rt 7 & Site Driveway/W Rocks Rd

 Ø1 12 s	 Ø2 (R) 36 s	 Ø3 22 s	 Ø4 20 s
 Ø5 12 s	 Ø6 (R) 36 s		

2022 Combined Conditions
11: US Rt 7 & Grist Mill Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1235	46	509	3	8	7	125	358	23	19	524	1017
Future Volume (vph)	1235	46	509	3	8	7	125	358	23	19	524	1017
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%				0%
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1625	1695	1523	0	3294	0	1752	1749	0	1685	1837	1561
Flt Permitted	0.950	0.956			0.992		0.130			0.530		
Satd. Flow (perm)	1625	1695	1523	0	3294	0	240	1749	0	933	1837	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			294		7			4				640
Link Speed (mph)		25			25			35				35
Link Distance (ft)		676			269			737				1467
Travel Time (s)		18.4			7.3			14.4				28.6
Confl. Peds. (#/hr)									5	5		
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 (%)	5%	0%	2%	0%	0%	0%	2%	3%	0%	0%	0%	0%
Shared Lane Traffic (%)	48%											
Lane Group Flow (vph)	662	658	525	0	18	0	129	393	0	20	540	1048
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	44.0	44.0	10.0	13.0	13.0		10.0	43.0		33.0	33.0	44.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	37.6	37.6	48.7		5.9		39.1	36.8		26.8	26.8	70.8
Actuated g/C Ratio	0.41	0.41	0.53		0.06		0.43	0.40		0.29	0.29	0.77
v/c Ratio	0.99	0.95	0.55		0.08		0.64	0.56		0.07	1.01	0.78
Control Delay	62.4	51.7	7.4		33.2		34.6	25.6		26.7	75.1	7.5
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	62.4	51.7	7.4		33.2		34.6	25.6		26.7	75.1	7.5
LOS	E	D	A		C		C	C		C	E	A
Approach Delay		42.9			33.2			27.9				30.4
Approach LOS		D			C			C				C
Queue Length 50th (ft)	355	342	59		3		41	154		8	289	40
Queue Length 95th (ft)	#716	#693	140		15		#109	295		28	#587	310
Internal Link Dist (ft)		596			189			657				1387
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	667	696	947		291		201	706		273	537	1351
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.99	0.95	0.55		0.06		0.64	0.56		0.07	1.01	0.78

Intersection Summary

Area Type: Other
Cycle Length: 100

Actuated Cycle Length: 91.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 35.9

Intersection LOS: D

Intersection Capacity Utilization 90.6%

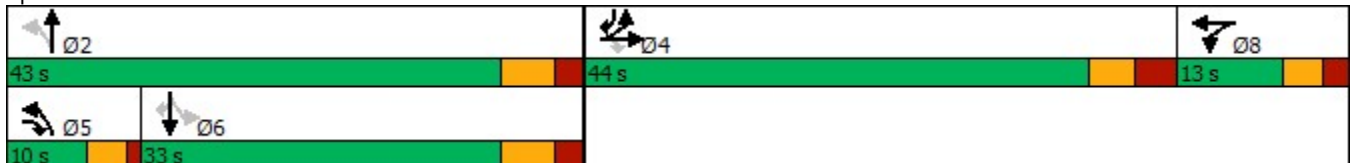
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: US Rt 7 & Grist Mill Rd



2022 Combined Conditions
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	132	77	86	1575	1263	235
Future Volume (vph)	132	77	86	1575	1263	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1747	0	1736	3438	3250	0
Flt Permitted	0.969		0.087			
Satd. Flow (perm)	1747	0	159	3438	3250	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	29				34	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	1%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	218	0	90	1641	1561	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	24.0		16.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	13.6		63.6	67.6	46.0	
Actuated g/C Ratio	0.15		0.71	0.75	0.51	
v/c Ratio	0.75		0.23	0.64	0.93	
Control Delay	47.7		15.8	5.2	32.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	47.7		15.8	5.2	32.4	
LOS	D		B	A	C	
Approach Delay	47.7			5.8	32.4	
Approach LOS	D			A	C	
Queue Length 50th (ft)	105		16	114	419	
Queue Length 95th (ft)	169		m11	m37	#598	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	395		399	2580	1676	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.55		0.23	0.64	0.93	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 59 (66%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 20.2

Intersection LOS: C

Intersection Capacity Utilization 70.9%

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.

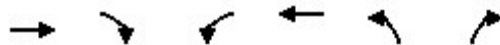
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: US Rt 7 & Kent Rd



2022 Combined Conditions
5: Cannondale Way & Kent Rd

PM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	111	15	16	304	51	97
Future Volume (Veh/h)	111	15	16	304	51	97
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	117	16	17	320	54	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				323		
pX, platoon unblocked						
vC, conflicting volume			133		479	125
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			133		479	125
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		90	89
cM capacity (veh/h)			1404		542	931
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	133	337	156			
Volume Left	0	17	54			
Volume Right	16	0	102			
cSH	1700	1404	746			
Volume to Capacity	0.08	0.01	0.21			
Queue Length 95th (ft)	0	1	20			
Control Delay (s)	0.0	0.5	11.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	11.1			
Approach LOS			B			
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization			42.4%	ICU Level of Service		A
Analysis Period (min)			15			

2022 Combined Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (vph)	26	80	157	179	38	134	153	1612	290	205	1049	29
Future Volume (vph)	26	80	157	179	38	134	153	1612	290	205	1049	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1772	0	1885	1727	0	1676	3619	1538	1762	3443	0
Flt Permitted		0.959		0.533			0.150			0.147		
Satd. Flow (perm)	0	1707	0	1058	1727	0	265	3619	1538	273	3443	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		70							136			3
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			557			652				2029
Travel Time (s)		15.2			12.7			12.7				39.5
Confl. Peds. (#/hr)	5					5						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	181	173	0	155	1628	293	207	1089	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	20.0	20.0		20.0	20.0		12.0	36.0	36.0	12.0	36.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	5.8	6.3	4.0	6.3	
Act Effect Green (s)		31.4		31.4	31.4		39.4	30.3	29.8	40.6	30.4	
Actuated g/C Ratio		0.35		0.35	0.35		0.44	0.34	0.33	0.45	0.34	
v/c Ratio		0.41		0.49	0.29		0.67	1.34	0.49	0.82	0.93	
Control Delay		21.7		33.2	26.2		29.4	185.1	15.7	40.1	29.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		21.7		33.2	26.2		29.4	185.1	15.7	40.1	29.1	
LOS		C		C	C		C	F	B	D	C	
Approach Delay		21.7			29.8			149.6			30.8	
Approach LOS		C			C			F			C	
Queue Length 50th (ft)		74		73	64		47	~610	66	69	205	
Queue Length 95th (ft)		#242		#248	#175		#102	#738	142	m81	m#310	
Internal Link Dist (ft)		479			477			572			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		641		368	602		243	1218	600	255	1165	
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		0.41		0.49	0.29		0.64	1.34	0.49	0.81	0.93	

Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2022 Combined Conditions
11: US Rt 7 & Grist Mill Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1416	11	155	33	55	40	206	623	19	7	390	999
Future Volume (vph)	1416	11	155	33	55	40	206	623	19	7	390	999
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%			0%	
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1689	1751	1508	0	3259	0	1787	1809	0	1685	1801	1531
Flt Permitted	0.950	0.953			0.987		0.183			0.213		
Satd. Flow (perm)	1689	1751	1508	0	3259	0	344	1809	0	375	1801	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			157		40			2				316
Link Speed (mph)		25			25			35				35
Link Distance (ft)		674			315			506				817
Travel Time (s)		18.4			8.6			9.9				15.9
Confl. Peds. (#/hr)									8	8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	3%	0%	4%	0%	0%	0%	0%	0%	2%	2%
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	715	726	157	0	129	0	208	648	0	7	394	1009
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	41.0	41.0	16.0	13.0	13.0		16.0	46.0		30.0	30.0	41.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	34.5	34.5	48.2		7.2		42.0	39.7		24.5	24.5	65.3
Actuated g/C Ratio	0.35	0.35	0.49		0.07		0.42	0.40		0.25	0.25	0.66
v/c Ratio	1.22	1.19	0.19		0.47		0.68	0.90		0.08	0.89	0.91
Control Delay	144.8	134.2	1.9		36.2		30.7	45.0		32.4	60.5	23.5
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	144.8	134.2	1.9		36.2		30.7	45.0		32.4	60.5	23.5
LOS	F	F	A		D		C	D		C	E	C
Approach Delay		125.9			36.2			41.6				33.9
Approach LOS		F			D			D				C
Queue Length 50th (ft)	~594	~595	0		28		85	380		3	246	379
Queue Length 95th (ft)	#828	#829	20		58		138	#601		16	#424	#780
Internal Link Dist (ft)		594			235			426				737
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	586	608	823		296		319	724		92	443	1114
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	1.22	1.19	0.19		0.44		0.65	0.90		0.08	0.89	0.91

Intersection Summary

Area Type: Other
Cycle Length: 100

Actuated Cycle Length: 99.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.22

Intersection Signal Delay: 72.5

Intersection LOS: E

Intersection Capacity Utilization 100.2%

ICU Level of Service G

Analysis Period (min) 15

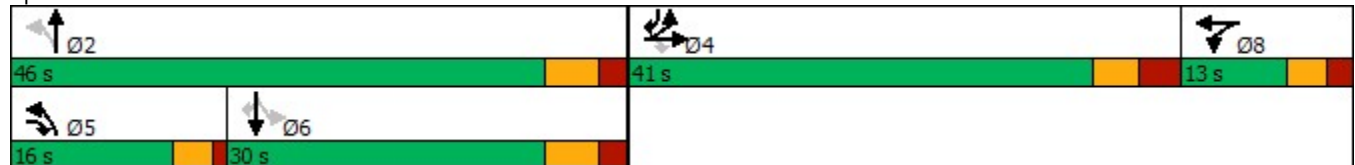
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: US Rt 7 & Grist Mill Rd



2022 Combined Conditions Improved
3: US Rt 7 & Kent Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	94	35	54	1329	1216	195
Future Volume (vph)	94	35	54	1329	1216	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1731	0	1702	3307	3315	0
Flt Permitted	0.965		0.083			
Satd. Flow (perm)	1731	0	149	3307	3315	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	19				28	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Confl. Peds. (#/hr)		2				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	2%	5%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	0	57	1414	1501	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	25.0		15.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	11.5		65.7	69.7	48.1	
Actuated g/C Ratio	0.13		0.73	0.77	0.53	
v/c Ratio	0.58		0.15	0.55	0.84	
Control Delay	41.0		6.3	2.4	23.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	41.0		6.3	2.4	23.9	
LOS	D		A	A	C	
Approach Delay	41.0			2.6	23.9	
Approach LOS	D			A	C	
Queue Length 50th (ft)	65		0	5	361	
Queue Length 95th (ft)	112		m3	m40	#551	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	403		392	2562	1785	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.34		0.15	0.55	0.84	

Intersection Summary

Area Type: Other
Cycle Length: 90

Actuated Cycle Length: 90

Offset: 54 (60%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 14.5

Intersection LOS: B

Intersection Capacity Utilization 60.2%

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.

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

Splits and Phases: 3: US Rt 7 & Kent Rd



2022 Combined Conditions Improved
5: Cannondale Way & Kent Rd

AM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	110	37	81	155	19	19
Future Volume (Veh/h)	110	37	81	155	19	19
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	120	40	88	168	21	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			160			484 140
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			160			484 140
tC, single (s)			4.1			6.4 6.3
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.4
p0 queue free %			94			96 98
cM capacity (veh/h)			1432			512 892
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	160	256	42			
Volume Left	0	88	21			
Volume Right	40	0	21			
cSH	1700	1432	650			
Volume to Capacity	0.09	0.06	0.06			
Queue Length 95th (ft)	0	5	5			
Control Delay (s)	0.0	3.0	10.9			
Lane LOS			A			B
Approach Delay (s)	0.0	3.0	10.9			
Approach LOS			B			
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization			34.0%	ICU Level of Service	A	
Analysis Period (min)			15			

2022 Combined Conditions Improved
7: US Rt 7 & Site Driveway/W Rocks Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕	↗	↖	↕	↗
Traffic Volume (vph)	25	24	103	267	84	95	168	1275	128	56	1180	28
Future Volume (vph)	25	24	103	267	84	95	168	1275	128	56	1180	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1739	0	1867	1751	0	1660	3307	1452	1695	3350	0
Flt Permitted		0.929		0.652			0.117			0.132		
Satd. Flow (perm)	0	1624	0	1281	1751	0	204	3307	1419	235	3350	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		95							136			3
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			489			1467				2029
Travel Time (s)		15.2			11.1			28.6				39.5
Confl. Peds. (#/hr)	10					10			2	2		
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
Heavy Vehicles (%)	0%	0%	1%	2%	1%	5%	1%	5%	7%	4%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	281	188	0	177	1342	135	59	1271	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	16.0	16.0		16.0	16.0		13.0	42.0	42.0	10.0	39.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	6.3	6.3	4.0	6.3	
Act Effct Green (s)		27.4		27.4	27.4		47.4	38.2	38.2	41.2	33.6	
Actuated g/C Ratio		0.30		0.30	0.30		0.53	0.42	0.42	0.46	0.37	
v/c Ratio		0.28		0.72	0.35		0.74	0.96	0.20	0.30	1.02	
Control Delay		14.4		43.6	31.2		34.4	43.0	4.0	10.3	41.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		14.4		43.6	31.2		34.4	43.0	4.0	10.3	41.9	
LOS		B		D	C		C	D	A	B	D	
Approach Delay		14.4			38.6			38.9			40.5	
Approach LOS		B			D			D			D	
Queue Length 50th (ft)		24		131	76		50	390	0	6	~264	
Queue Length 95th (ft)		97		#407	#242		#136	#563	34	m12	#529	
Internal Link Dist (ft)		479			409			1387			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		560		389	532		253	1402	680	206	1252	
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		0.28		0.72	0.35		0.70	0.96	0.20	0.29	1.02	

Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2022 Combined Conditions Improved
11: US Rt 7 & Grist Mill Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1235	46	509	3	8	7	125	358	23	19	524	1017
Future Volume (vph)	1235	46	509	3	8	7	125	358	23	19	524	1017
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%				0%
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1625	1695	1523	0	3294	0	1752	1749	0	1685	1837	1561
Flt Permitted	0.950	0.956			0.992		0.130			0.507		
Satd. Flow (perm)	1625	1695	1523	0	3294	0	240	1749	0	892	1837	1561
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			294		7			4				659
Link Speed (mph)		25			25			35				35
Link Distance (ft)		676			269			737				1467
Travel Time (s)		18.4			7.3			14.4				28.6
Confl. Peds. (#/hr)									5	5		
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 (%)	5%	0%	2%	0%	0%	0%	2%	3%	0%	0%	0%	0%
Shared Lane Traffic (%)	49%											
Lane Group Flow (vph)	649	671	525	0	18	0	129	393	0	20	540	1048
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	45.0	45.0	9.0	13.0	13.0		9.0	42.0		33.0	33.0	45.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	38.6	38.6	48.7		5.9		38.1	35.8		26.8	26.8	71.8
Actuated g/C Ratio	0.42	0.42	0.53		0.06		0.42	0.39		0.29	0.29	0.78
v/c Ratio	0.95	0.94	0.55		0.08		0.71	0.57		0.08	1.01	0.77
Control Delay	51.7	49.5	7.5		33.2		42.9	26.7		26.8	75.1	6.9
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	51.7	49.5	7.5		33.2		42.9	26.7		26.8	75.1	6.9
LOS	D	D	A		C		D	C		C	E	A
Approach Delay		38.4			33.2			30.7				30.0
Approach LOS		D			C			C				C
Queue Length 50th (ft)	335	345	59		3		42	158		8	289	34
Queue Length 95th (ft)	#687	#700	150		15		#130	300		29	#587	273
Internal Link Dist (ft)		596			189			657				1387
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	685	715	947		291		182	686		260	537	1365
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.95	0.94	0.55		0.06		0.71	0.57		0.08	1.01	0.77

Intersection Summary

Area Type: Other
Cycle Length: 100

Actuated Cycle Length: 91.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 34.0

Intersection LOS: C

Intersection Capacity Utilization 90.6%

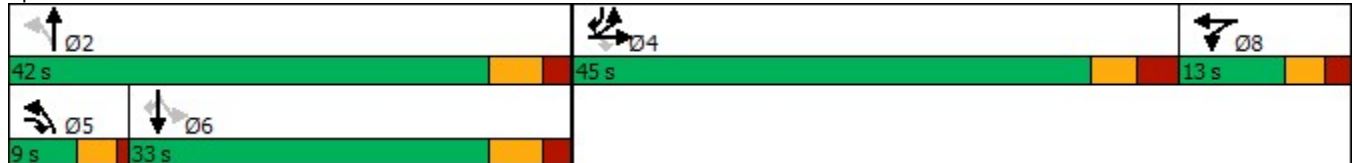
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 11: US Rt 7 & Grist Mill Rd



2022 Combined Conditions Improved
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	132	77	86	1575	1263	235
Future Volume (vph)	132	77	86	1575	1263	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1747	0	1736	3438	3250	0
Flt Permitted	0.969		0.087			
Satd. Flow (perm)	1747	0	159	3438	3250	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	29				34	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			2029	421	
Travel Time (s)	8.8			39.5	8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	1%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	218	0	90	1641	1561	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	24.0		16.0		50.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	13.6		63.6	67.6	46.0	
Actuated g/C Ratio	0.15		0.71	0.75	0.51	
v/c Ratio	0.75		0.23	0.64	0.93	
Control Delay	47.7		14.8	2.4	32.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	47.7		14.8	2.4	32.4	
LOS	D		B	A	C	
Approach Delay	47.7			3.1	32.4	
Approach LOS	D			A	C	
Queue Length 50th (ft)	105		11	22	419	
Queue Length 95th (ft)	169		m12	m44	#598	
Internal Link Dist (ft)	243			1949	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	395		399	2580	1676	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.55		0.23	0.64	0.93	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 59 (66%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 18.9

Intersection LOS: B

Intersection Capacity Utilization 70.9%

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.

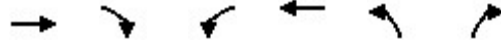
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: US Rt 7 & Kent Rd



2022 Combined Conditions Improved
5: Cannondale Way & Kent Rd

PM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	111	15	16	304	51	97
Future Volume (Veh/h)	111	15	16	304	51	97
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	117	16	17	320	54	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				323		
pX, platoon unblocked						
vC, conflicting volume			133		479	125
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			133		479	125
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		90	89
cM capacity (veh/h)			1404		542	931
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	133	337	156			
Volume Left	0	17	54			
Volume Right	16	0	102			
cSH	1700	1404	746			
Volume to Capacity	0.08	0.01	0.21			
Queue Length 95th (ft)	0	1	20			
Control Delay (s)	0.0	0.5	11.1			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	11.1			
Approach LOS			B			
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization			42.4%		ICU Level of Service	A
Analysis Period (min)			15			

2022 Combined Conditions Improved
7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↘		↙	↕	↘	↙	↕	↘
Traffic Volume (vph)	26	80	157	179	38	134	153	1612	290	205	1049	29
Future Volume (vph)	26	80	157	179	38	134	153	1612	290	205	1049	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	125		0	285		100	335		0
Storage Lanes	0		0	1		0	1		1	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1772	0	1885	1713	0	1676	3619	1538	1762	3443	0
Flt Permitted		0.956		0.478			0.119			0.116		
Satd. Flow (perm)	0	1700	0	949	1713	0	210	3619	1538	215	3443	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		64							136			4
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			557			652				2029
Travel Time (s)		15.2			12.7			12.7				39.5
Confl. Peds. (#/hr)	5					5						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	181	173	0	155	1628	293	207	1089	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			4		1	6		5	2	
Permitted Phases	4			4			6		6	2		
Total Split (s)	13.0	13.0		13.0	13.0		12.0	43.0	43.0	12.0	43.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	5.8	6.3	4.0	6.3	
Act Effct Green (s)		24.4		24.4	24.4		46.2	37.4	36.9	47.8	37.7	
Actuated g/C Ratio		0.27		0.27	0.27		0.51	0.42	0.41	0.53	0.42	
v/c Ratio		0.52		0.70	0.37		0.70	1.08	0.41	0.83	0.75	
Control Delay		29.2		50.3	34.5		30.4	76.8	11.8	43.5	11.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		29.2		50.3	34.5		30.4	76.8	11.8	43.5	11.6	
LOS		C		D	C		C	E	B	D	B	
Approach Delay		29.2			42.6			64.2			16.7	
Approach LOS		C			D			E			B	
Queue Length 50th (ft)		89		86	74		39	~526	58	70	65	
Queue Length 95th (ft)		#325		#303	#256		#107	#654	123	m83	m116	
Internal Link Dist (ft)		479			477			572			1949	
Turn Bay Length (ft)				125			285		100	335		
Base Capacity (vph)		507		257	464		239	1502	710	251	1444	
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		0.52		0.70	0.37		0.65	1.08	0.41	0.82	0.75	

Intersection Summary

Area Type: Other
Cycle Length: 90

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2022 Combined Conditions Improved
 7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
 05/21/2021

Actuated Cycle Length: 90

Offset: 9 (10%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 44.5

Intersection LOS: D

Intersection Capacity Utilization 100.4%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 7: US Rt 7 & Site Driveway/W Rocks Rd



2022 Combined Conditions Improved
11: US Rt 7 & Grist Mill Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1416	11	155	33	55	40	206	623	19	7	390	999
Future Volume (vph)	1416	11	155	33	55	40	206	623	19	7	390	999
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	11	10	11	11	12	11	11	10	11	11
Grade (%)		1%			-2%			2%			0%	
Storage Length (ft)	0		400	0		0	0		0	140		0
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1689	1751	1508	0	3259	0	1787	1809	0	1685	1801	1531
Flt Permitted	0.950	0.953			0.987		0.218			0.150		
Satd. Flow (perm)	1689	1751	1508	0	3259	0	410	1809	0	265	1801	1531
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			157		40			2				310
Link Speed (mph)		25			25			35				35
Link Distance (ft)		674			315			506				817
Travel Time (s)		18.4			8.6			9.9				15.9
Confl. Peds. (#/hr)									8	8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	0%	3%	0%	4%	0%	0%	0%	0%	0%	2%	2%
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	715	726	157	0	129	0	208	648	0	7	394	1009
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		Perm	NA	pm+ov
Protected Phases	4	4	5	8	8		5	2			6	4
Permitted Phases			4				2			6		6
Total Split (s)	43.0	43.0	11.0	13.0	13.0		11.0	44.0		33.0	33.0	43.0
Total Lost Time (s)	6.5	6.5	4.0		5.1		4.0	6.3		6.3	6.3	6.5
Act Effct Green (s)	36.5	36.5	46.0		7.2		40.0	37.7		26.7	26.7	69.5
Actuated g/C Ratio	0.37	0.37	0.46		0.07		0.40	0.38		0.27	0.27	0.70
v/c Ratio	1.15	1.13	0.20		0.47		0.79	0.94		0.10	0.82	0.87
Control Delay	117.2	107.9	2.1		36.2		45.5	54.0		31.9	49.3	17.7
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	117.2	107.9	2.1		36.2		45.5	54.0		31.9	49.3	17.7
LOS	F	F	A		D		D	D		C	D	B
Approach Delay		101.7			36.2			51.9				26.6
Approach LOS		F			D			D				C
Queue Length 50th (ft)	~571	~570	0		28		88	394		3	236	312
Queue Length 95th (ft)	#804	#805	22		58		#185	#626		16	#388	#751
Internal Link Dist (ft)		594			235			426				737
Turn Bay Length (ft)			400							140		
Base Capacity (vph)	620	643	782		296		262	687		71	483	1164
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	1.15	1.13	0.20		0.44		0.79	0.94		0.10	0.82	0.87

Intersection Summary

Area Type: Other
Cycle Length: 100

2025 Conditions

2025 Background Conditions
3: US Rt 7 & Kent Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	170	60	40	1666	1262	190
Future Volume (vph)	170	60	40	1666	1262	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1731	0	1702	3307	3318	0
Flt Permitted	0.964		0.063			
Satd. Flow (perm)	1731	0	113	3307	3318	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	14				20	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			571	421	
Travel Time (s)	8.8			11.1	8.2	
Confl. Peds. (#/hr)		2				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	2%	5%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	245	0	43	1772	1545	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	33.0		21.0		66.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	19.6		87.6	91.6	63.0	
Actuated g/C Ratio	0.16		0.73	0.76	0.52	
v/c Ratio	0.83		0.11	0.70	0.88	
Control Delay	68.1		4.0	12.0	32.9	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	68.1		4.0	12.0	32.9	
LOS	E		A	B	C	
Approach Delay	68.1			11.8	32.9	
Approach LOS	E			B	C	
Queue Length 50th (ft)	175		0	693	554	
Queue Length 95th (ft)	250		m3	759	#693	
Internal Link Dist (ft)	243			491	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	417		391	2523	1752	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.59		0.11	0.70	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 120

Actuated Cycle Length: 120

Offset: 58 (48%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 24.7

Intersection LOS: C

Intersection Capacity Utilization 66.6%

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.

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

Splits and Phases: 3: US Rt 7 & Kent Rd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	218	33	75	155	13	12
Future Volume (Veh/h)	218	33	75	155	13	12
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	237	36	82	168	14	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			273		587	255
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			273		587	255
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			94		97	98
cM capacity (veh/h)			1302		445	769
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	273	250	27			
Volume Left	0	82	14			
Volume Right	36	0	13			
cSH	1700	1302	558			
Volume to Capacity	0.16	0.06	0.05			
Queue Length 95th (ft)	0	5	4			
Control Delay (s)	0.0	3.0	11.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	3.0	11.8			
Approach LOS			B			
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			39.1%	ICU Level of Service	A	
Analysis Period (min)			15			

2025 Background Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕↕↕		↕	↕	
Traffic Volume (vph)	25	25	104	321	84	180	217	1551	112	60	1218	44
Future Volume (vph)	25	25	104	321	84	180	217	1551	112	60	1218	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	200		215	215		215	335		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			100			50			50		
Satd. Flow (prot)	0	1741	0	3622	1634	0	1660	4691	0	1695	3522	0
Flt Permitted		0.992		0.950			0.091			0.100		
Satd. Flow (perm)	0	1736	0	3622	1634	0	159	4691	0	178	3522	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		70						11				3
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			560			913				1443
Travel Time (s)		15.2			12.7			17.8				28.1
Confl. Peds. (#/hr)	10					10			2	2		
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
Heavy Vehicles (%)	0%	0%	1%	2%	1%	5%	1%	5%	7%	4%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	161	0	338	277	0	228	1751	0	63	1328	0
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases							6			2		
Total Split (s)	19.0	19.0		11.0	11.0		17.0	54.0		11.0	48.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	6.3		4.0	5.3	
Act Effct Green (s)		10.6		24.8	24.8		63.2	52.9		51.3	44.1	
Actuated g/C Ratio		0.09		0.21	0.21		0.53	0.44		0.43	0.37	
v/c Ratio		0.74		0.45	0.82		0.89	0.85		0.42	1.02	
Control Delay		50.3		45.3	65.7		43.6	30.2		21.5	41.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		50.3		45.3	65.7		43.6	30.2		21.5	41.6	
LOS		D		D	E		D	C		C	D	
Approach Delay		50.3			54.4			31.7			40.7	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)		69		112	195		114	438		7	~565	
Queue Length 95th (ft)		142		#317	#566		m#164	m488		m4	#680	
Internal Link Dist (ft)		479			480			833			1363	
Turn Bay Length (ft)				200			215			335		
Base Capacity (vph)		248		748	337		258	2072		166	1297	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.65		0.45	0.82		0.88	0.85		0.38	1.02	




Intersection Summary

Area Type: Other
Cycle Length: 120

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	25.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	






















Actuated Cycle Length: 120
 Offset: 115 (96%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 38.8 Intersection LOS: D
 Intersection Capacity Utilization 90.4% ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: US Rt 7 & Site Driveway/W Rocks Rd

 Ø1	 Ø2 (R)	 Ø3	 Ø4	 Ø8
17 s	48 s	25 s	11 s	19 s
 Ø5	 Ø6 (R)			
11 s	54 s			

2025 Background Conditions
11: US Rt 7 & Grist Mill

AM Peak Hour
05/21/2021

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1500	0	510	0	10	10	50	410	0	10	420	1334
Future Volume (vph)	1500	0	510	0	10	10	50	410	0	10	420	1334
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	645		0	0		0	390		0	155		320
Storage Lanes	2		1	0		0	2		0	1		2
Taper Length (ft)	300			25			300			25		
Satd. Flow (prot)	3433	1863	1583	0	3274	0	3416	3522	0	1770	3539	2787
Flt Permitted	0.950						0.950			0.494		
Satd. Flow (perm)	3433	1863	1583	0	3274	0	3416	3522	0	920	3539	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			44		11							1086
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		531			398			398			559	
Travel Time (s)		12.1			9.0			7.8			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1630	0	554	0	22	0	54	446	0	11	457	1450
Turn Type	Prot		pm+ov		NA		Prot	NA		Perm	NA	pm+ov
Protected Phases	7	4	1		8		1	6			2	7
Permitted Phases			4	8						2		2
Total Split (s)	66.0	78.0	13.0	12.0	12.0		13.0	42.0		29.0	29.0	66.0
Total Lost Time (s)	6.0	6.0	3.0		5.0		3.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	60.0		80.5		6.0		7.7	41.2		30.5	30.5	96.5
Actuated g/C Ratio	0.50		0.67		0.05		0.06	0.34		0.25	0.25	0.80
v/c Ratio	0.95		0.51		0.13		0.25	0.37		0.05	0.51	0.59
Control Delay	41.8		10.4		36.8		55.7	31.8		58.9	58.9	2.9
Queue Delay	0.0		0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	41.8		10.4		36.8		55.7	31.8		58.9	58.9	2.9
LOS	D		B		D		E	C		E	E	A
Approach Delay		33.8			36.8			34.4			16.5	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)	600		160		4		21	143		8	176	17
Queue Length 95th (ft)	#778		203		18		41	194		m12	m191	m109
Internal Link Dist (ft)		451			318			318			479	
Turn Bay Length (ft)	645						390			155		320
Base Capacity (vph)	1716		1106		201		284	1208		234	900	2454
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	0.95		0.50		0.11		0.19	0.37		0.05	0.51	0.59

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 30 (25%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 26.7

Intersection LOS: C

Intersection Capacity Utilization 80.0%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 11: US Rt 7 & Grist Mill



2025 Background Conditions
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	140	80	80	1727	1278	310
Future Volume (vph)	140	80	80	1727	1278	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1748	0	1736	3438	3236	0
Flt Permitted	0.969		0.060			
Satd. Flow (perm)	1748	0	110	3438	3236	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	22				41	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			644	421	
Travel Time (s)	8.8			12.5	8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	1%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	229	0	83	1799	1654	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	32.0		14.0		74.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	17.8		89.4	93.4	69.9	
Actuated g/C Ratio	0.15		0.74	0.78	0.58	
v/c Ratio	0.82		0.25	0.67	0.87	
Control Delay	67.2		19.4	8.0	27.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	67.2		19.4	8.0	27.4	
LOS	E		B	A	C	
Approach Delay	67.2			8.5	27.4	
Approach LOS	E			A	C	
Queue Length 50th (ft)	158		19	200	544	
Queue Length 95th (ft)	232		m17	m668	667	
Internal Link Dist (ft)	243			564	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	413		329	2674	1900	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.55		0.25	0.67	0.87	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 55 (46%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 20.4

Intersection LOS: C

Intersection Capacity Utilization 74.0%

ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 3: US Rt 7 & Kent Rd





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Volume (veh/h)	128	9	10	380	46	92
Future Volume (Veh/h)	128	9	10	380	46	92
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	135	9	11	400	48	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				323		
pX, platoon unblocked						
vC, conflicting volume			144		562	140
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			144		562	140
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		90	89
cM capacity (veh/h)			1391		488	914
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	144	411	145			
Volume Left	0	11	48			
Volume Right	9	0	97			
cSH	1700	1391	709			
Volume to Capacity	0.08	0.01	0.20			
Queue Length 95th (ft)	0	1	19			
Control Delay (s)	0.0	0.3	11.4			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.3	11.4			
Approach LOS			B			
Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization			42.9%		ICU Level of Service	A
Analysis Period (min)			15			

2025 Background Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↖	↗	↕	↖	↗	
Traffic Volume (vph)	26	80	181	232	38	160	157	1681	332	260	1069	29
Future Volume (vph)	26	80	181	232	38	160	157	1681	332	260	1069	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	200		215	215		215	335		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			100			50			50		
Satd. Flow (prot)	0	1766	0	3658	1712	0	1676	5292	0	1762	3443	0
Flt Permitted		0.996		0.950			0.107			0.097		
Satd. Flow (perm)	0	1762	0	3658	1712	0	189	5292	0	180	3443	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		53						45				2
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			590			1471				1393
Travel Time (s)		15.2			13.4			28.7				27.1
Confl. Peds. (#/hr)	5					5						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	0	234	200	0	159	2033	0	263	1109	0
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases							6			2		
Total Split (s)	11.0	11.0		21.0	21.0		14.0	47.0		16.0	49.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	5.3		3.0	6.3	
Act Effect Green (s)		21.1		18.5	18.5		52.3	41.7		59.3	43.4	
Actuated g/C Ratio		0.18		0.15	0.15		0.44	0.35		0.49	0.36	
v/c Ratio		0.82		0.41	0.76		0.81	1.09		1.01	0.89	
Control Delay		58.6		48.4	67.5		40.7	80.0		79.3	25.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		58.6		48.4	67.5		40.7	80.0		79.3	25.2	
LOS		E		D	E		D	E		E	C	
Approach Delay		58.6			57.2			77.1			35.6	
Approach LOS		E			E			E			D	
Queue Length 50th (ft)		175		83	146		61	~603		~138	398	
Queue Length 95th (ft)		#510		130	#304		m87	m#382		m#224	#544	
Internal Link Dist (ft)		479			510			1391			1313	
Turn Bay Length (ft)				200			215			335		
Base Capacity (vph)		354		564	264		207	1868		260	1247	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.82		0.41	0.76		0.77	1.09		1.01	0.89	

Intersection Summary

Area Type: Other
Cycle Length: 120

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	25.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Actuated Cycle Length: 120

Offset: 117 (98%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 60.5

Intersection LOS: E

Intersection Capacity Utilization 101.4%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.







Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

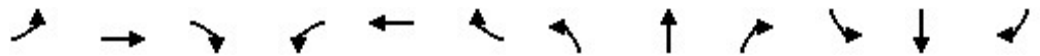
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: US Rt 7 & Site Driveway/W Rocks Rd

 Ø1	 Ø2 (R)	 Ø3	 Ø4	 Ø8
14 s	49 s	25 s	21 s	11 s
 Ø5	 Ø6 (R)			
16 s	47 s			

2025 Background Conditions
10: US Rt 7 & Grist Mill Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗		↔↔		↔↔	↔↔		↗	↗↗	↗↗
Traffic Volume (vph)	1540	0	150	0	10	10	120	600	10	10	240	1242
Future Volume (vph)	1540	0	150	0	10	10	120	600	10	10	240	1242
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	645		0	0		0	390		0	155		320
Storage Lanes	2		1	0		0	2		0	1		2
Taper Length (ft)	300			25			300			25		
Satd. Flow (prot)	3433	1863	1583	0	3274	0	3416	3514	0	1770	3539	2787
Flt Permitted	0.950						0.950			0.374		
Satd. Flow (perm)	3433	1863	1583	0	3274	0	3416	3514	0	697	3539	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			153		11			1				718
Link Speed (mph)		30			30			35				35
Link Distance (ft)		531			398			398				1471
Travel Time (s)		12.1			9.0			7.8				28.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1674	0	163	0	22	0	130	663	0	11	261	1350
Turn Type	Prot		pm+ov		NA		Prot	NA		Perm	NA	pm+ov
Protected Phases	7	4	1		8		1	6			2	7
Permitted Phases			4	8						2		2
Total Split (s)	68.0	80.0	13.0	12.0	12.0		13.0	40.0		27.0	27.0	68.0
Total Lost Time (s)	6.0	6.0	3.0		5.0		3.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	62.0		84.1		6.0		9.3	39.2		26.9	26.9	94.9
Actuated g/C Ratio	0.52		0.70		0.05		0.08	0.33		0.22	0.22	0.79
v/c Ratio	0.94		0.14		0.13		0.49	0.58		0.07	0.33	0.57
Control Delay	39.6		1.0		36.8		59.4	37.0		39.7	36.3	3.9
Queue Delay	0.0		0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	39.6		1.0		36.8		59.4	37.0		39.7	36.3	3.9
LOS	D		A		D		E	D		D	D	A
Approach Delay		36.2			36.8			40.7				9.3
Approach LOS		D			D			D				A
Queue Length 50th (ft)	608		2		4		50	234		5	66	1
Queue Length 95th (ft)	#791		17		18		83	305		m8	m91	493
Internal Link Dist (ft)		451			318			318			1391	
Turn Bay Length (ft)	645						390			155		320
Base Capacity (vph)	1773		1165		201		288	1147		155	792	2353
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	0.94		0.14		0.11		0.45	0.58		0.07	0.33	0.57

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 51 (43%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 26.8

Intersection LOS: C

Intersection Capacity Utilization 86.7%

ICU Level of Service E

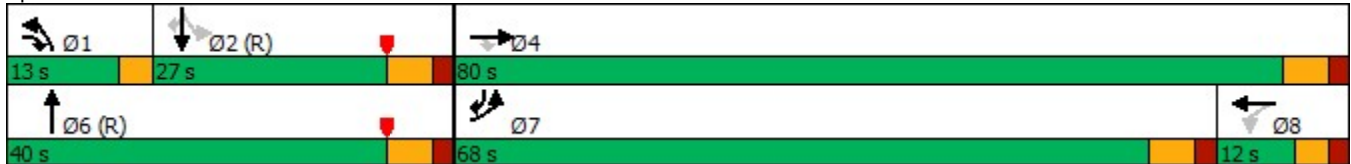
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: US Rt 7 & Grist Mill Rd



2025 Combined Conditions
3: US Rt 7 & Kent Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	176	61	41	1674	1266	195
Future Volume (vph)	176	61	41	1674	1266	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1731	0	1702	3307	3318	0
Flt Permitted	0.964		0.064			
Satd. Flow (perm)	1731	0	115	3307	3318	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	14				21	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			571	421	
Travel Time (s)	8.8			11.1	8.2	
Confl. Peds. (#/hr)		2				
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	0%	2%	5%	0%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	252	0	44	1781	1554	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	33.0		21.0		66.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	20.1		87.1	91.1	62.8	
Actuated g/C Ratio	0.17		0.73	0.76	0.52	
v/c Ratio	0.84		0.11	0.71	0.89	
Control Delay	68.0		4.1	11.5	33.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	68.0		4.1	11.5	33.6	
LOS	E		A	B	C	
Approach Delay	68.0			11.3	33.6	
Approach LOS	E			B	C	
Queue Length 50th (ft)	181		0	697	560	
Queue Length 95th (ft)	257		m3	762	#708	
Internal Link Dist (ft)	243			491	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	417		388	2510	1746	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.60		0.11	0.71	0.89	

Intersection Summary

Area Type: Other
Cycle Length: 120

Actuated Cycle Length: 120

Offset: 58 (48%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 67.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 3: US Rt 7 & Kent Rd



2025 Combined Conditions
5: Cannondale Way & Kent Rd

AM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	218	37	81	155	19	19
Future Volume (Veh/h)	218	37	81	155	19	19
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	237	40	88	168	21	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			277		601	257
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			277		601	257
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.4
p0 queue free %			93		95	97
cM capacity (veh/h)			1298		435	767
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	277	256	42			
Volume Left	0	88	21			
Volume Right	40	0	21			
cSH	1700	1298	555			
Volume to Capacity	0.16	0.07	0.08			
Queue Length 95th (ft)	0	5	6			
Control Delay (s)	0.0	3.1	12.0			
Lane LOS		A	B			
Approach Delay (s)	0.0	3.1	12.0			
Approach LOS			B			
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			39.7%	ICU Level of Service	A	
Analysis Period (min)			15			

2025 Combined Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

AM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↖	↗	↕	↖	↗	↘
Traffic Volume (vph)	33	35	136	321	92	180	230	1552	112	60	1219	47
Future Volume (vph)	33	35	136	321	92	180	230	1552	112	60	1219	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	200		215	215		215	335		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			100			50			50		
Satd. Flow (prot)	0	1743	0	3622	1644	0	1660	4691	0	1695	3518	0
Flt Permitted		0.992		0.950			0.094			0.104		
Satd. Flow (perm)	0	1738	0	3622	1644	0	164	4691	0	185	3518	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		67						11				4
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			560			913				1443
Travel Time (s)		15.2			12.7			17.8				28.1
Confl. Peds. (#/hr)	10					10			2	2		
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
Heavy Vehicles (%)	0%	0%	1%	2%	1%	5%	1%	5%	7%	4%	5%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	215	0	338	286	0	242	1752	0	63	1332	0
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases							6			2		
Total Split (s)	19.0	19.0		11.0	11.0		17.0	54.0		11.0	48.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	6.3		4.0	5.3	
Act Effct Green (s)		12.2		24.8	24.8		61.6	51.3		49.9	42.7	
Actuated g/C Ratio		0.10		0.21	0.21		0.51	0.43		0.42	0.36	
v/c Ratio		0.91		0.45	0.84		0.95	0.87		0.42	1.06	
Control Delay		76.1		45.3	67.7		54.4	32.1		19.4	55.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		76.1		45.3	67.7		54.4	32.1		19.4	55.0	
LOS		E		D	E		D	C		B	D	
Approach Delay		76.1			55.6			34.8			53.4	
Approach LOS		E			E			C			D	
Queue Length 50th (ft)		115		112	203		130	439		5	~569	
Queue Length 95th (ft)		#257		#317	#582		m#184	m485		m4	#684	
Internal Link Dist (ft)		479			480			833			1363	
Turn Bay Length (ft)				200			215			335		
Base Capacity (vph)		245		748	339		254	2011		166	1254	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.88		0.45	0.84		0.95	0.87		0.38	1.06	

Intersection Summary
 Area Type: Other
 Cycle Length: 120

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	25.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2025 Combined Conditions
11: US Rt 7 & Grist Mill

AM Peak Hour
05/21/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1511	0	510	0	10	10	50	413	0	10	431	1355
Future Volume (vph)	1511	0	510	0	10	10	50	413	0	10	431	1355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	645		0	0		0	390		0	155		320
Storage Lanes	2		1	0		0	2		0	1		2
Taper Length (ft)	300			25			300			25		
Satd. Flow (prot)	3433	1863	1583	0	3274	0	3416	3522	0	1770	3539	2787
Flt Permitted	0.950						0.950			0.492		
Satd. Flow (perm)	3433	1863	1583	0	3274	0	3416	3522	0	916	3539	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			41		11							1086
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		531			398			398			559	
Travel Time (s)		12.1			9.0			7.8			10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1642	0	554	0	22	0	54	449	0	11	468	1473
Turn Type	Prot		pm+ov		NA		Prot	NA		Perm	NA	pm+ov
Protected Phases	7	4	1		8		1	6			2	7
Permitted Phases			4	8						2		2
Total Split (s)	66.0	78.0	13.0	12.0	12.0		13.0	42.0		29.0	29.0	66.0
Total Lost Time (s)	6.0	6.0	3.0		5.0		3.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	60.0		80.5		6.0		7.7	41.2		30.5	30.5	96.5
Actuated g/C Ratio	0.50		0.67		0.05		0.06	0.34		0.25	0.25	0.80
v/c Ratio	0.96		0.52		0.13		0.25	0.37		0.05	0.52	0.60
Control Delay	42.9		10.4		36.8		55.7	31.9		58.2	59.3	2.9
Queue Delay	0.0		0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	42.9		10.4		36.8		55.7	31.9		58.2	59.3	2.9
LOS	D		B		D		E	C		E	E	A
Approach Delay		34.7			36.8			34.4			16.7	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)	608		161		4		21	144		8	181	15
Queue Length 95th (ft)	#787		205		18		41	196		m12	m191	m106
Internal Link Dist (ft)		451			318			318			479	
Turn Bay Length (ft)	645						390			155		320
Base Capacity (vph)	1716		1105		201		284	1208		233	900	2454
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	0.96		0.50		0.11		0.19	0.37		0.05	0.52	0.60

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 30 (25%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 27.2 Intersection LOS: C

Intersection Capacity Utilization 80.4% ICU Level of Service D

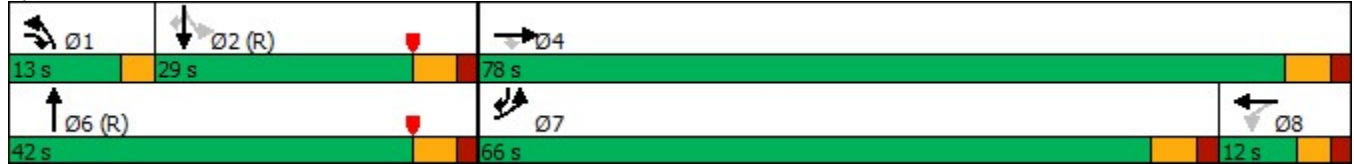
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 11: US Rt 7 & Grist Mill



2025 Combined Conditions
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	145	81	81	1733	1286	315
Future Volume (vph)	145	81	81	1733	1286	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	11	10	11
Grade (%)	-1%			1%	-1%	
Storage Length (ft)	0	0	115			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Satd. Flow (prot)	1750	0	1736	3438	3236	0
Flt Permitted	0.969		0.057			
Satd. Flow (perm)	1750	0	104	3438	3236	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	22				42	
Link Speed (mph)	25			35	35	
Link Distance (ft)	323			644	421	
Travel Time (s)	8.8			12.5	8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	1%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	235	0	84	1805	1668	0
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases	4		1 2			
Total Split (s)	32.0		14.0		74.0	
Total Lost Time (s)	4.8		4.0		5.2	
Act Effct Green (s)	18.2		89.0	93.0	69.7	
Actuated g/C Ratio	0.15		0.74	0.78	0.58	
v/c Ratio	0.83		0.26	0.68	0.88	
Control Delay	67.2		21.2	8.2	28.0	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	67.2		21.2	8.2	28.0	
LOS	E		C	A	C	
Approach Delay	67.2			8.8	28.0	
Approach LOS	E			A	C	
Queue Length 50th (ft)	162		20	200	552	
Queue Length 95th (ft)	238		m19	m671	680	
Internal Link Dist (ft)	243			564	341	
Turn Bay Length (ft)			115			
Base Capacity (vph)	413		322	2663	1898	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.57		0.26	0.68	0.88	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

2025 Combined Conditions
3: US Rt 7 & Kent Rd

PM Peak Hour
05/21/2021

Offset: 55 (46%), Referenced to phase 2:NBSB, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 20.8

Intersection LOS: C

Intersection Capacity Utilization 74.7%

ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 3: US Rt 7 & Kent Rd



2025 Combined Conditions
5: Cannondale Way & Kent Rd

PM Peak Hour
05/21/2021



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Traffic Volume (veh/h)	128	15	16	380	51	97
Future Volume (Veh/h)	128	15	16	380	51	97
Sign Control	Free			Free	Stop	
Grade	-11%			-1%	2%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	135	16	17	400	54	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None		None			
Median storage (veh)						
Upstream signal (ft)	323					
pX, platoon unblocked						
vC, conflicting volume			151		577	143
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			151		577	143
tC, single (s)			4.2		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.3
p0 queue free %			99		89	89
cM capacity (veh/h)			1382		476	910
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	151	417	156			
Volume Left	0	17	54			
Volume Right	16	0	102			
cSH	1700	1382	691			
Volume to Capacity	0.09	0.01	0.23			
Queue Length 95th (ft)	0	1	22			
Control Delay (s)	0.0	0.4	11.7			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.4	11.7			
Approach LOS			B			
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			47.3%	ICU Level of Service	A	
Analysis Period (min)			15			

2025 Combined Conditions
7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↖	↗	↕	↖	↗	↘
Traffic Volume (vph)	32	87	198	232	44	160	187	1682	332	260	1070	37
Future Volume (vph)	32	87	198	232	44	160	187	1682	332	260	1070	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	10	11	11	11	11	11
Grade (%)		2%			-11%			1%				-2%
Storage Length (ft)	0		0	200		215	215		215	335		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			100			50			50		
Satd. Flow (prot)	0	1767	0	3658	1721	0	1676	5292	0	1762	3440	0
Flt Permitted		0.995		0.950			0.107			0.099		
Satd. Flow (perm)	0	1762	0	3658	1721	0	189	5292	0	184	3440	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		52						45				3
Link Speed (mph)		25			30			35				35
Link Distance (ft)		559			590			1471				1393
Travel Time (s)		15.2			13.4			28.7				27.1
Confl. Peds. (#/hr)	5					5						
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	1%	1%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	320	0	234	206	0	189	2034	0	263	1118	0
Turn Type	Split	NA		Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		1	6		5	2	
Permitted Phases							6			2		
Total Split (s)	11.0	11.0		21.0	21.0		14.0	47.0		16.0	49.0	
Total Lost Time (s)		6.2		6.2	6.2		4.0	5.3		3.0	6.3	
Act Effct Green (s)		20.4		19.2	19.2		53.0	41.7		59.0	42.7	
Actuated g/C Ratio		0.17		0.16	0.16		0.44	0.35		0.49	0.36	
v/c Ratio		0.93		0.40	0.75		0.91	1.09		1.01	0.91	
Control Delay		75.9		47.7	65.7		54.5	79.9		77.2	26.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		75.9		47.7	65.7		54.5	79.9		77.2	26.8	
LOS		E		D	E		D	E		E	C	
Approach Delay		75.9			56.1			77.7			36.4	
Approach LOS		E			E			E			D	
Queue Length 50th (ft)		204		82	150		84	~603		~135	399	
Queue Length 95th (ft)		#568		130	#316		m#130	m#362		m#216	m#547	
Internal Link Dist (ft)		479			510			1391			1313	
Turn Bay Length (ft)				200			215			335		
Base Capacity (vph)		343		586	275		207	1868		261	1225	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.93		0.40	0.75		0.91	1.09		1.01	0.91	

Intersection Summary

Area Type: Other
Cycle Length: 120

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Total Split (s)	25.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

2025 Combined Conditions
 7: US Rt 7 & Site Driveway/W Rocks Rd

PM Peak Hour
 05/21/2021

Actuated Cycle Length: 120

Offset: 117 (98%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 62.4

Intersection LOS: E

Intersection Capacity Utilization 103.5%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.





Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 7: US Rt 7 & Site Driveway/W Rocks Rd

 Ø1	 Ø2 (R)	 Ø3	 Ø4	 Ø8
14 s	49 s	25 s	21 s	11 s
 Ø5	 Ø6 (R)			
16 s	47 s			

2025 Combined Conditions
10: US Rt 7 & Grist Mill Rd

PM Peak Hour
05/21/2021



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗		↔↔		↔↔	↔↔		↗	↑↑	↗↗
Traffic Volume (vph)	1561	0	150	0	10	10	120	609	10	10	245	1255
Future Volume (vph)	1561	0	150	0	10	10	120	609	10	10	245	1255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			1%			0%	
Storage Length (ft)	645		0	0		0	390		0	155		320
Storage Lanes	2		1	0		0	2		0	1		2
Taper Length (ft)	300			25			300			25		
Satd. Flow (prot)	3433	1863	1583	0	3274	0	3416	3514	0	1770	3539	2787
Flt Permitted	0.950						0.950			0.364		
Satd. Flow (perm)	3433	1863	1583	0	3274	0	3416	3514	0	678	3539	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			147		11			1				718
Link Speed (mph)		30			30			35				35
Link Distance (ft)		531			398			398				1471
Travel Time (s)		12.1			9.0			7.8				28.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1697	0	163	0	22	0	130	673	0	11	266	1364
Turn Type	Prot		pm+ov		NA		Prot	NA		Perm	NA	pm+ov
Protected Phases	7	4	1		8		1	6			2	7
Permitted Phases			4	8						2		2
Total Split (s)	68.0	80.0	13.0	12.0	12.0		13.0	40.0		27.0	27.0	68.0
Total Lost Time (s)	6.0	6.0	3.0		5.0		3.0	6.0		6.0	6.0	6.0
Act Effct Green (s)	62.0		84.1		6.0		9.3	39.2		26.9	26.9	94.9
Actuated g/C Ratio	0.52		0.70		0.05		0.08	0.33		0.22	0.22	0.79
v/c Ratio	0.96		0.14		0.13		0.49	0.59		0.07	0.34	0.58
Control Delay	41.6		1.1		36.8		59.4	37.2		40.8	36.7	3.8
Queue Delay	0.0		0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	41.6		1.1		36.8		59.4	37.2		40.8	36.7	3.8
LOS	D		A		D		E	D		D	D	A
Approach Delay		38.1			36.8			40.8				9.4
Approach LOS		D			D			D				A
Queue Length 50th (ft)	624		3		4		50	239		5	68	1
Queue Length 95th (ft)	#809		18		18		83	310		m8	m91	m482
Internal Link Dist (ft)		451			318			318			1391	
Turn Bay Length (ft)	645						390			155		320
Base Capacity (vph)	1773		1163		201		288	1147		151	792	2353
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	0.96		0.14		0.11		0.45	0.59		0.07	0.34	0.58

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 51 (43%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 87.5%

ICU Level of Service E

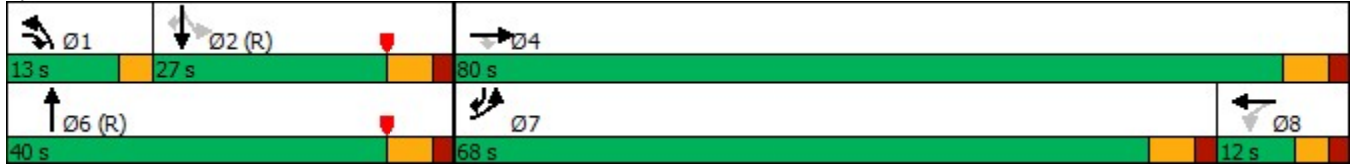
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: US Rt 7 & Grist Mill Rd



Signal Timing Plans

TIME-SPACE DIAGRAM COVER SHEET

ROUTE: 7 / 219
 SYSTEM: N-29
 PROJ #: _____

HOURS OF OPERATION: FLASH
 DAY(S) OF OPERATION: _____
 TOWN(S): NORWALK / WILTON

INT #	ID #	LOCATION	HOURS			
			MON-FRI	SAT	SUN	DAILY
102-301	330	NEW CANAAN AVE @ 7 EXP				2300-0500
102-202	331	RTE 7 @ RTE 123NB				
102-222	332	RTE 123 & MAIN				
102-294	333	DELAWARE AVE				
102-223	334	WARD				
102-281	335	BROAD				
102-225	337	PERRY AVE				
102-282	338	LINDEN ST				2200-0500
102-280	339	MERRITVIEW & SHP CNTR				2200-0630
102-227	340	GLOVER & CREEP HEM				
102-311	353	SR719 MERRIT ON RIVER				2200-0500
102-310	352	MERRIT 7 BLDG 601 DR				2200-0500
102-286	329ML/341L	MERRIT 7 BLDG 4 NRTHDR				
102-270	342	VALLEYVIEW & MERRIT				2200-0500
102-303	343	MERRIT 7 SHPCNTR DR				2200-0500
102-284	345	S.R. 719 (MAIN AVE)				
102-285	344	GRISTMILL, 7 & GLOVER				
102-228	346	WEST ROCKS & PERKIN				2200-0500
102-314	354	FOXBORO DRIVE				2200-0500
161-204	348	GATEWAY SHPCNTR				2200-0600
161-209	347	KENT RD				2200-0600
161-212	349	KENNETT AVE				2200-0600
161-205	350	DR TO PERKIN ELMER				
161-206	351	GRUMMAN HILL RD				

TIME-SPACE DIAGRAM COVER SHEET

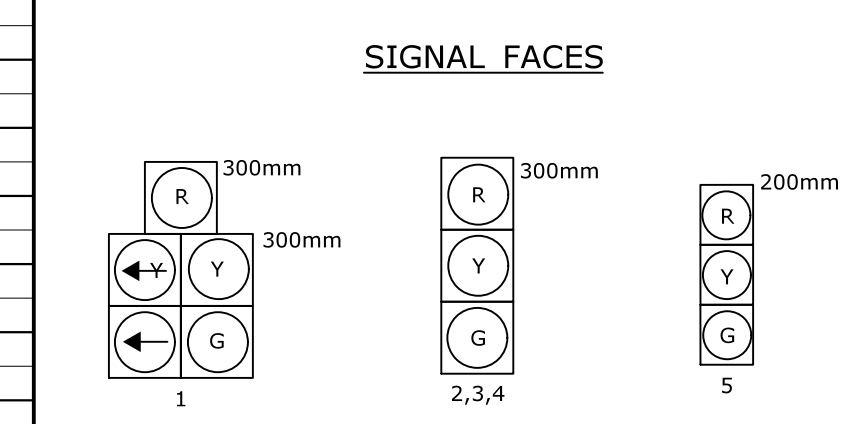
ROUTE: 7 / 219
 SYSTEM: N-29
 PROJ #: _____

HOURS OF OPERATION: FREE
 DAY(S) OF OPERATION: _____
 TOWN(S): NORWALK / WILTON

INT #	ID #	LOCATION	HOURS			
			MON-FRI	SAT	SUN	DAILY
102-301	330	NEW CANAAN AVE @ 7 EXP				ALL OTHER HOURS
102-202	331	RTE 7 @ RTE 123NB				ALL OTHER HOURS
102-222	332	RTE 123 & MAIN				ALL OTHER HOURS
102-294	333	DELAWARE AVE				ALL OTHER HOURS
102-223	334	WARD				2200-0500
102-281	335	BROAD				ALL OTHER HOURS
102-225	337	PERRY AVE				ALL OTHER HOURS
102-282	338	LINDEN ST				
102-280	339	MERRITVIEW & SHP CNTR				ALL OTHER HOURS
102-227	340	GLOVER & CREEP HEM				ALL OTHER HOURS
102-311	353	SR719 MERRIT ON RIVER				
102-310	352	MERRIT 7 BLDG 601 DR				
102-286	329ML/341L	MERRIT 7 BLDG 4 NRTHDR				
102-270	342	VALLEYVIEW & MERRIT				
102-303	343	MERRIT 7 SHPCNTR DR				
102-284	345	S.R. 719 (MAIN AVE)				ALL OTHER HOURS
102-285	344	GRISTMILL, 7 & GLOVER				ALL OTHER HOURS
102-228	346	WEST ROCKS & PERKIN				ALL OTHER HOURS
102-314	354	FOXBORO DRIVE				
161-204	348	GATEWAY SHPCNTR				
161-209	347	KENT RD				
161-212	349	KENNETT AVE				
161-205	350	DR TO PERKIN ELMER				
161-206	351	GRUMMAN HILL RD				

MOVEMENT DIAGRAM																																	
NTOR	PHASE 1				PHASE 2 PRE-EMPT 1				PHASE 3				PHASE 4				PHASE 5				PHASE 6				PHASE 7				PHASE 8				
NONE	[Diagram]				[Diagram]				[Diagram]				[Diagram]				[Diagram]				[Diagram]				[Diagram]				[Diagram]				
F A C E #	FLASH	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL		
	1	Y	G	G	G	Y	R							R	R	R																	
	2	Y	G	G	G	Y	R							R	R	R																	
	3	Y	R	R	R	G	Y	R						R	R	R																	
	4	R	R	R	R	R	R	R							G	Y	R																
5	R	R	R	R	R	R	R							G	Y	R																	
					← YIELD PT.																												
I N T E R V A L S	MIN GRN	5				15								9																			
	WALK													17																			
	PED CLR													1																			
	VEH EXT	1												1																			
	MAX 1	12												21																			
	MAX 2	12												21																			
	YELLOW	3.0				4.1				1.1				3.0				1.8															
	RED																																
	ADD INIT																																
	MAX INIT																																
TBR																																	
TTR																																	
MIN GAP																																	
MODE	NON-LOCK				MAX RECALL				OFF				NON-LOCK				OFF				OFF				OFF								
INT START					THIS PHASE																												

TECHNICAL NOTES		OFFICE RECORD	
STANDARD OVERLAP SKIP FEATURES APPLY		REV # 6	TIR # N/A
PHASE 2 ON TO OMIT PHASE 1.		SM # 101675	SIGNAL REVISED: 08/05/2019
PRE-EMPTION TO BE INOPERATIVE DURING FLASHING OPERATION.			
TIMINGS SHOWN REFLECT FREE OPERATION.			
ACTUAL COORDINATION INFORMATION TO BE DETERMINED BY THE CLOSED LOOP LOCAL COORDINATION UNIT.			



ALL INDICATIONS HAVE LED LAMPS.
FACE 5 HAS TUNNEL VISORS & 7° 5 VANE CUT OFF LEFT LOUVERS.

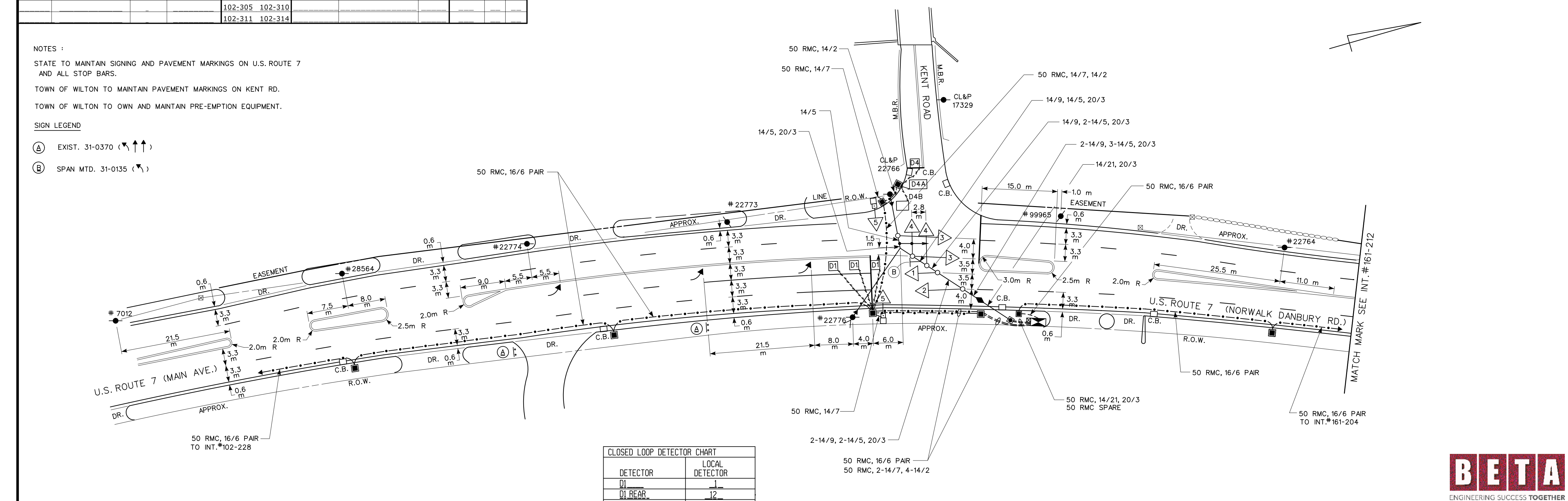
PRE-EMPTION SETTINGS

	PRE-EMPT 1
PRIORITY	NO
DET. LOCK	YES
DELAY	0
ALT. MIN. GRN	5
ALT. YELLOW	PARENT
ALT. RED	PARENT
ALT. PED. CLR.	NO
HOLD GREEN	15
HOLD YELLOW	4.1
HOLD RED	1.1
HOLD PHASE	2
EXIT PHASE	4
EXIT CALL	NONE

IDENT	SIZE (WxL)	TURNS	MODE	SYSTEM LOC		COORDINATION TYPE: CLOSED LOOP		FUNCTION	PROGRAM TIME	DAYS	CYCLE	OFFSET
				MASTER	LOC	TYPE	TIME					
D1	1.8m x 1.8m	3	PRESENCE	102-301	102-303	FLASH	2200 - 0600	DAILY				
D4	1.8m x 1.8m	3	PRESENCE	102-202	102-284		SEE TECH. NOTES					
D4A	3.5m x 1.8m	3	PRESENCE	102-222	102-285							
D4B	2.5m x 1.8m	3	PRESENCE	102-294	161-204							
				102-223	161-209							
				102-281	161-212							
				102-225	161-205							
				102-282	161-206							
				102-280	102-227							
				102-228	102-270							
				102-305	102-310							
				102-311	102-314							

NOTES :
STATE TO MAINTAIN SIGNING AND PAVEMENT MARKINGS ON U.S. ROUTE 7 AND ALL STOP BARS.
TOWN OF WILTON TO MAINTAIN PAVEMENT MARKINGS ON KENT RD.
TOWN OF WILTON TO OWN AND MAINTAIN PRE-EMPTION EQUIPMENT.

- SIGN LEGEND**
- (A) EXIST. 31-0370 (↑↑↑)
 - (B) SPAN MTD. 31-0135 (↘)



CLOSED LOOP DETECTOR CHART

DETECTOR	LOCAL DETECTOR
D1	1
D1 REAR	12
D4A, D4B	3
D4	4

SPAN POLE INFORMATION
LENGHT 9 000 mm B.C. 510 mm LOAD AT YIELD 34 710 (N)

NO.	DATE	REVISION DESCRIPTION

- LEGEND:**
- R RED
 - Y YELLOW
 - G GREEN
 - ← RED ARROW
 - ↘ YELLOW ARROW
 - ↗ GREEN ARROW
 - WB WALK/ PED. CLR
 - D.W. DON'T WALK
 - FL FLASHING
 - PROPOSED WOOD SPAN POLE
 - EXISTING WOOD SPAN POLE
 - PROPOSED STEEL SPAN POLE
 - EXISTING STEEL SPAN POLE
 - PROPOSED UTILITY POLE
 - EXISTING UTILITY POLE
 - PEDESTAL MOUNTING
 - PEDESTAL PUSH BUTTON & SIGN
 - DIRECTIONAL ARW. FOR PUSH BUTTON
 - TRAFFIC SIGNAL FACE
 - PEDESTRIAN SIGNAL FACE
 - DET. LEADS IN SAW CUT
 - PROPOSED RMC (RIGID METAL CONDUIT)
 - EXISTING RMC (RIGID METAL CONDUIT)
 - AUXILIARY TERMINATION CABINET
 - AUXILIARY EQUIPMENT CABINET
 - VIDEO DETECTION ZONE
 - PROPOSED CONTROLLER
 - EXISTING CONTROLLER
 - LOOP DETECTOR
 - SD SYSTEM DETECTOR
 - MAGNETIC DETECTOR
 - OPTICAL DETECTOR
 - VIDEO DETECTOR
 - AUDIO DETECTOR
 - SIDEWALK RAMP
 - CABLE CLOSURE
 - WIRELESS SENSOR
 - WIRELESS RECEIVER
 - WIRELESS TRANSMITTER
 - GUY WIRE
 - PROPOSED HANDHOLE
 - EXISTING HANDHOLE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

DATE PLOTTED : 11/23/2019\DOT-SDCENG07\CTDOT_Projects\0173-0454\Traffic\3 - FINAL DESIGN\161 - Wilton\As-Built\TR_TCS_161_209_006.dgn

ENGINEER	TRAFFIC	DATE	ELECTRICAL	DATE

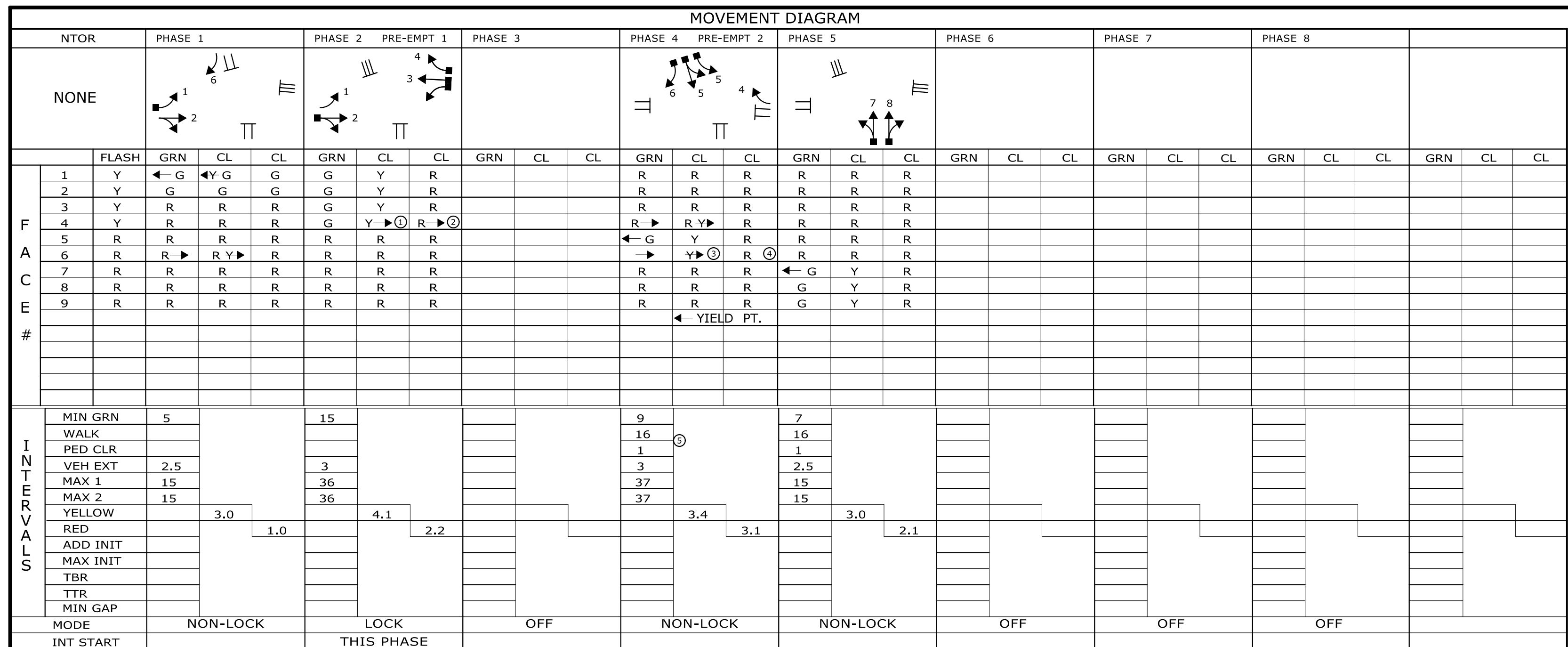
CLEARANCE INTERVALS
DESIGNED BY:
BETA GROUP, INC.
ENGINEER'S SEAL & SIGNATURE
APPLY TO CLEARANCE
INTERVALS ONLY.



REV # 6	INTERSECTION # 161-209
ENERGY BY - TOWN	ADDRESS # 347
MAINT LEVEL 5	SERVICE POLE - CL&P 22766
UNMETERED SERVICE	

TOWN:	WILTON	PROJECT NO.	173-454
DRAWING TITLE:	TRAFFIC CONTROL SIGNAL PLAN	DRAWING NO.	
		SHEET NO.	

SCALE 1mm = 500mm



TECHNICAL NOTES

STANDARD OVERLAP SKIP FEATURES APPLY

- TO BE Y IF PHASE 4 IS SKIPPED.
- TO BE R IF PHASE 4 IS SKIPPED.
- TO BE → IF PHASE 1 IS NEXT.
- TO BE R → IF PHASE 1 IS NEXT.

PEDESTRIAN TIMINGS USED FOR CNA OPERATION IN PATTERNS 1 AND 5.
 PEDESTRIAN PUSH BUTTONS TO ACTIVATE PHASE 5.
 TIMINGS SHOWN REFLECT FREE OPERATION.
 ACTUAL COORDINATION INFORMATION TO BE DETERMINED BY THE CLOSED LOOP LOCAL COORDINATION UNIT.

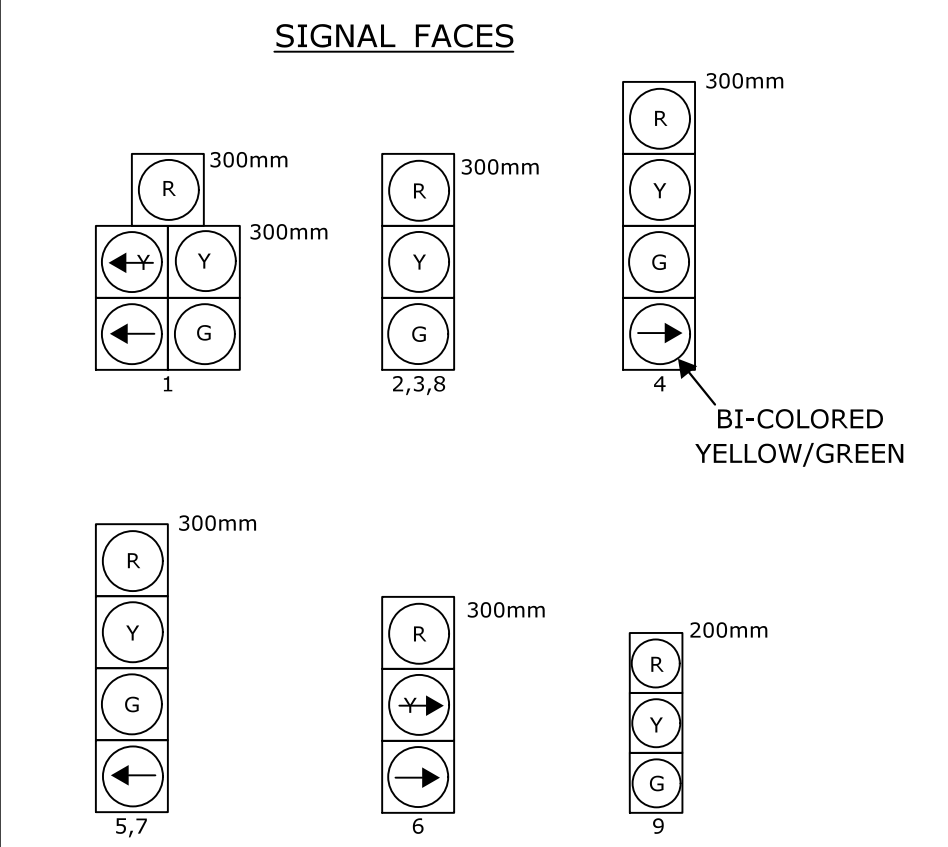
REV # 11	OFFICE RECORD	TIR # N/A	SM # 100890	SIGNAL REVISED: 01/17/2018
REVISOR: [Signature]				

INTERVALS

	MIN GRN	5	15	9	7
WALK					
PED CLR					
VEH EXT	2.5		3	2.5	
MAX 1	15		36	15	
MAX 2	15		36	15	
YELLOW	3.0		4.1	3.4	
RED		1.0		3.1	2.1
ADD INIT					
MAX INIT					
TBR					
TTR					
MIN GAP					
MODE	NON-LOCK		LOCK		OFF
INT START	THIS PHASE		THIS PHASE		OFF

DETECTORS

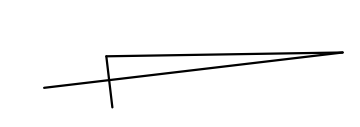
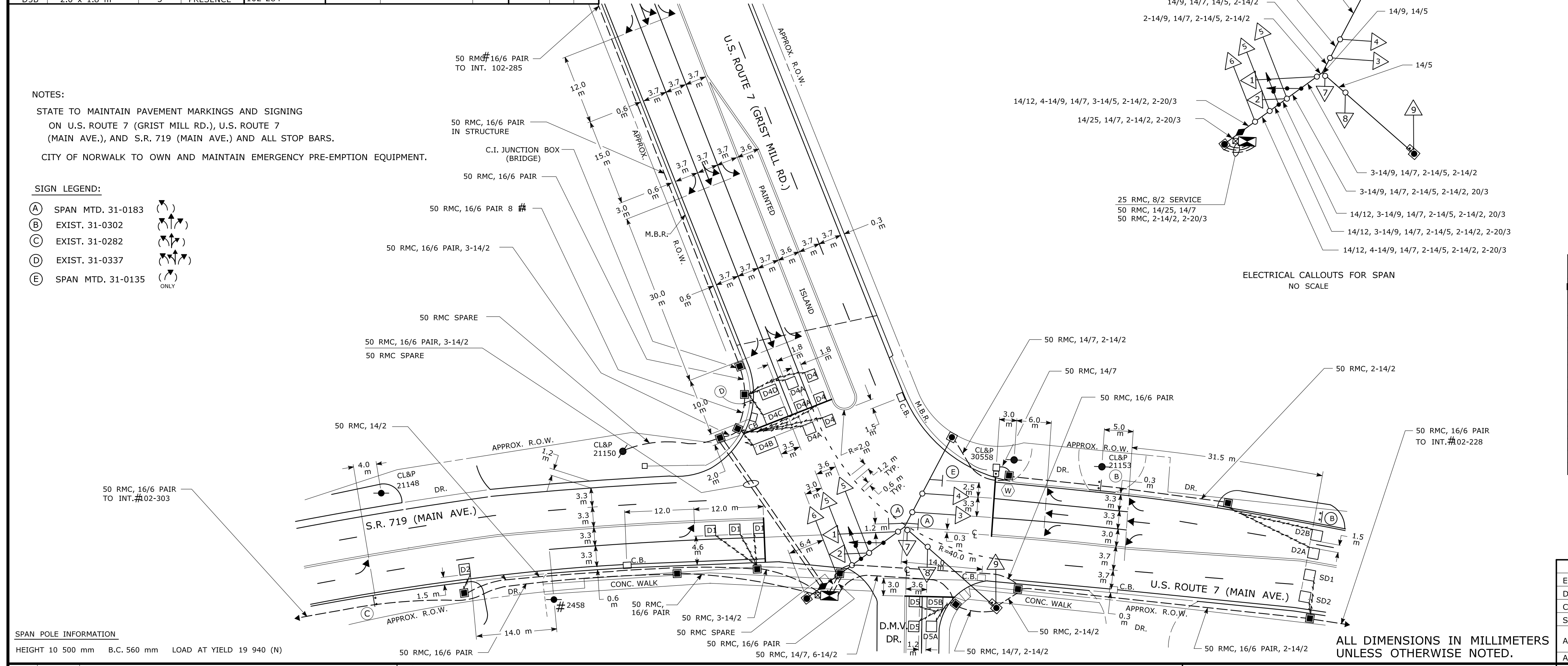
IDENT	SIZE (WXL)	TURNS	MODE	SYSTEM LOC	COORDINATION TYPE	PROGRAM	TIME	DAYS	CYCLE	OFFSET
D1	1.8 m x 1.8 m	3	PRESENCE	102-286	CLOSED LOOP	102-301	102-285			
D2	1.8 m x 1.8 m	3	PRESENCE	102-202	CLOSED LOOP	102-270				
D2A	1.8 m x 1.8 m	3	PRESENCE	102-222	CLOSED LOOP	102-303				
D2B	1.8 m x 1.8 m	3	PRESENCE	102-294	CLOSED LOOP	161-204				
D4	1.8 m x 1.8 m	3	PRESENCE	102-223	CLOSED LOOP	161-209				
D4A	1.8 m x 1.8 m	3	PRESENCE	102-281	CLOSED LOOP	161-212				
D4B	4.0 m x 1.8 m	3	8" DELAY	102-225	CLOSED LOOP	161-205				
D4C	4.0 m x 1.8 m	3	8" DELAY	102-282	CLOSED LOOP	161-206				
D4D	3.0 m x 1.8 m	3	8" DELAY	102-280	CLOSED LOOP	102-311				
D5	1.8 m x 1.8 m	3	PRESENCE	102-227	CLOSED LOOP	102-310				
D5A	1.8 m x 1.8 m	3	PRESENCE	102-228	CLOSED LOOP	102-314				
D5B	2.6 x 1.8 m	3	PRESENCE	102-284	CLOSED LOOP					



PRE-EMPTION SETTINGS

	PRE-EMPT 1	PRE-EMPT 2
PRIORITY	NO	NO
DET. LOCK	YES	YES
DELAY	0	0
ALT. MIN. GRN	5	5
ALT. YELLOW	PARENT	PARENT
ALT. RED	PARENT	PARENT
ALT. PED. CLR.	NO	NO
HOLD GREEN	15	15
HOLD YELLOW	4.1	3.4
HOLD RED	2.2	3.1
HOLD PHASE	2	4
EXIT PHASE	4	5
EXIT CALL	NONE	NONE

ALL INDICATIONS HAVE LED LAMPS
 FACE 9 HAS TUNNEL VISORS AND CUT-OFF RIGHT LOUVERS.



NOTES:
 STATE TO MAINTAIN PAVEMENT MARKINGS AND SIGNING ON U.S. ROUTE 7 (GRIST MILL RD.), U.S. ROUTE 7 (MAIN AVE.), AND S.R. 719 (MAIN AVE.) AND ALL STOP BARS.
 CITY OF NORWALK TO OWN AND MAINTAIN EMERGENCY PRE-EMPTION EQUIPMENT.

SIGN LEGEND:

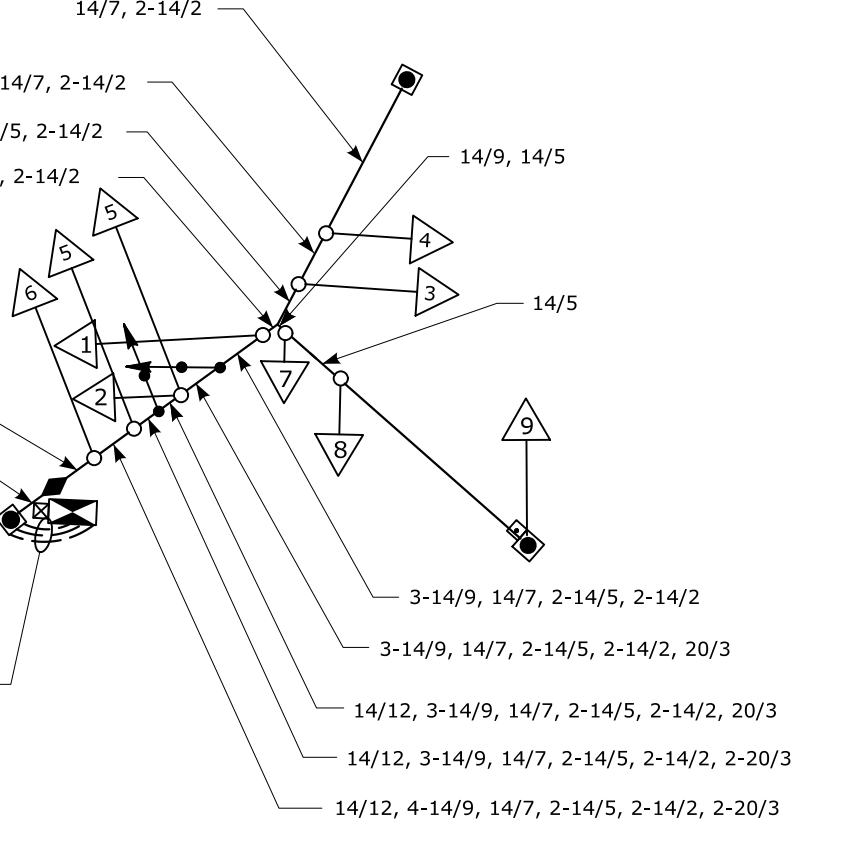
(A) SPAN MTD. 31-0183	
(B) EXIST. 31-0302	
(C) EXIST. 31-0282	
(D) EXIST. 31-0337	
(E) SPAN MTD. 31-0135 ONLY	

SPAN POLE INFORMATION

HEIGHT	10 500 mm
B.C.	560 mm
LOAD AT YIELD	19 940 (N)

LEGEND: R RED Y YELLOW G GREEN ← RED ARROW → YELLOW ARROW WALK/PED. CLR D.W. DON'T WALK FL. FLASHING	○ PROPOSED WOOD SPAN POLE ● EXISTING WOOD SPAN POLE □ PROPOSED STEEL SPAN POLE ● EXISTING STEEL SPAN POLE ○ PROPOSED UTILITY POLE ● EXISTING UTILITY POLE □ PEDESTAL MOUNTING □ PEDESTRIAN PUSH BUTTON & SIGN □ DIRECTIONAL ARW. FOR PUSH BUTTON	□ TRAFFIC SIGNAL FACE □ PEDESTRIAN SIGNAL FACE □ DET. LEADS IN SAW CUT □ PROPOSED RMC (RIGID METAL CONDUIT) □ EXISTING RMC (RIGID METAL CONDUIT) □ AUXILIARY TERMINATION CABINET □ AUXILIARY EQUIPMENT CABINET □ VIDEO DETECTION ZONE □ AUDIO DETECTOR	□ SIDEWALK RAMP □ CABLE CLOSURE □ WIRELESS SENSOR □ WIRELESS RECEIVER □ WIRELESS TRANSMITTER □ GUY WIRE □ PROPOSED HANDHOLE □ EXISTING HANDHOLE
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DATE PLOTTED : 11/19/2019\DOT-SDCENG07V\CTDOT_Projects\0173-0454\Traffic\3 - FINAL DESIGN\102 - Norwalk\As-Built\TR_MSH_TCS_102_284_011.dgn



CLOSED LOOP DETECTOR CHART

DETECTOR I.D.	DETECTOR #
D1	1
D1 REAR	15
D2	2
D2A	16
D2B	9
D4	4
D4A	8
D4B,C,D	7
SD1	10
SD2	11
D5	5
D5 REAR	12
D5B	13
D5A	14

ENGINEER	TRAFFIC	DATE	ELECTRICAL	DATE
DRAWN BY				
CHECKED BY				
SUBMITTED BY				
APPROVED BY				
APPROVED DATE				

REV #11	INTERSECTION # 102-284
ENERGY BY - STATE	METER # -
MAINT LEVEL 1	SERVICE POLE - CL&P 30558
	UNMETERED SERVICE

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 7 (GRIST MILL RD.)
 AND MAIN AVE.) AT
 S.R. 719 (MAIN AVE.)

CITY: **NORWALK**

PROJECT NO. 173-454

DRAWING NO. **TRAFFIC CONTROL SIGNAL PLAN**

SHEET NO.

SCALE 1mm = 500mm