# TRAFFIC IMPACT STUDY

# PROPOSED MIXED-USE DEVELOPMENT CALEF HIGHWAY (NH ROUTE 125) BARRINGTON, NEW HAMPSHIRE

Prepared for:

HARBOR STREET LIMITED PARTNERSHIP Stratham, New Hampshire

April 2019

Prepared by:

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Dear Reviewer:

This letter shall certify that this *Traffic Impact Study* has been prepared under my direct supervision and responsible charge. I am a Registered Professional Engineer (P.E.) in the State of New Hampshire (NH P.E. No. 9822) and hold Certification as a Professional Traffic Operations Engineer (PTOE) from the Transportation Professional Certification Board, Inc. (TPCB), an affiliate of the Institute of Transportation Engineers (ITE) (PTOE Certificate No. 993). I am also a Fellow of the Institute of Transportation Engineers (FITE).

Sincerely,

VANASSE & ASSOCIATES, INC.

frey S. Dirk

ffrey S. Dirk, P.E., PTOE, FITE Principal

EXECUTIVE SUMMARY1
Recommendations
INTRODUCTION
Project Description
EXISTING CONDITIONS
Geometry7Existing Traffic Volumes8Spot Speed Measurements10Motor Vehicle Crash Data10
FUTURE CONDITIONS
Future Traffic Growth12Project-Generated Traffic13Trip Distribution and Assignment16Future Traffic Volumes - Build Condition16
TRAFFIC OPERATIONS ANALYSIS
Methodology
SIGHT DISTANCE EVALUATION
TURN LANE WARRANTS ANALYSIS
CONCLUSIONS AND RECOMMENDATIONS
Conclusions

# FIGURES

No.	Title
1	Site Location Map
2	Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities
3	2019 Existing Peak-Hour Traffic Volumes Peak-Month Conditions
4	2020 No-Build Peak-Hour Traffic Volumes Peak-Month Conditions
5	2030 No-Build Peak-Hour Traffic Volumes Peak-Month Conditions
6	Trip Distribution Map Residential Component
7	Trip Distribution Map Commercial Component
8	Project Generated Peak-Hour Traffic Volumes
9	2020 Opening-Year Build Peak-Hour Traffic Volumes Peak-Month Conditions
10	2030 Build Peak-Hour Traffic Volumes Peak-Month Conditions
11	Conceptual Improvement Plan

No.	Title
1	2019 Existing Peak-Month Traffic Volumes
2	Study Area Intersection Description
3	Vehicle Travel Speed Measurements
4	Trip-Generation Summary
5	Peak-Hour Traffic-Volume Increases
6	Level-of-Service Criteria for Signalized Intersections
7	Level-of-Service Criteria for Unsignalized Intersections
8	Signalized Intersection Level-of-Service and Vehicle Queue Summary
9	Unsignalized Intersection Level-of-Service and Vehicle Queue Summary
10	Sight Distance Measurements

Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use development to be located along the east side of NH Route 125 (Calef Highway) and south of Scruton Pond Road in Barrington, New Hampshire (hereafter referred to as the "Project"). This study was prepared in consultation with the Town of Barrington, the New Hampshire Department of Transportation (NHDOT) and the Strafford Regional Planning Commission (SRPC); was performed in general accordance with the NHDOT guidelines for the preparation of Traffic Impact Studies (TISs) and the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports; and is responsive to the scoping determination issued by issued by NHDOT for the Project.

Based on the analyses presented herein, we have concluded the following with respect to the Project:

- Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)<sup>1</sup> and with adjustment to account for pass-by trips, the Project is expected to generate approximately 1,732 new vehicle trips on an average weekday and 1,064 new vehicle trips on a Saturday (both two-way volumes over the operational day of the Project), with approximately 179 new vehicle trips expected during the weekday morning peak-hour, 219 new vehicle trips expected during the weekday evening peak-hour, and 160 new vehicle trips expected during the Saturday midday peak-hour;
- 2. In general, the Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions); however, it was noted that one or more movements at the intersection of NH Route 125 at NH Route 9 (Franklin Pierce Highway/Littleworth Road) are currently operating at or over capacity (defined as a level-of-service (LOS) of "E" or "F", respectively) independent of the Project;
- 3. Similar to other unsignalized intersections along the NH Route 125 corridor, motorists exiting the Project site are expected to experience delays during the peak traffic volume periods, with residual vehicle queues of up to six (6) vehicles predicted which can be

<sup>&</sup>lt;sup>1</sup>*Trip Generation*, 10<sup>th</sup> Edition; Institute of Transportation Engineers; Washington, DC; 2017.

contained within the Project site without impeding access or circulation, or the movement of vehicles, pedestrians and bicyclists along NH Route 125;

- 4. Lines of sight at the Project site roadway intersections with NH Route 125 were found to exceed or could be made to exceed the required minimum distance for the intersections to function in a safe manner; and
- 5. A review of the criteria for the installation of auxiliary turn lanes at the Project site roadway intersections with NH Route 125 indicates that the addition of both a left-turn lane and a right-turn deceleration lane are justified based on the applicable criteria.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

### **RECOMMENDATIONS**

A series of recommendations have been developed that are designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits and approvals.

#### **Project Access**

Access to the Project will be provided by way of two (2) new roadways that will intersect the east side of NH Route 125 as follows: the north roadway will be situated opposite the driveway to 246-248 Calef Highway (Casella Sales & Marketing Inc. and 603 Self-Storage); the south roadway will be located approximately 2,175 feet south of Scruton Pond Road. An access easement will also be established to allow for a future connection between the Project site and property to the north of Old Green Hill Road. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulation, many of which are reflected on the Site Plans:

- The Project site roadways and internal circulating roads should be 24-feet in width and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle as defined by the Barrington Fire Department.
- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided.
- Let-turn lanes should be provided on NH Route 125 approaching both the north and south Project site roadways, with the turn lane accommodations at the north Project site roadway to include a left-turn lane in both the north and southbound directions to facilitate access to the driveway serving the driveway to 246-248 Calef Highway. The existing shoulder width along NH Route 125 (nine (9) to 10 feet) combined with properly designed corner radii for the Project site roadways will accommodate vehicles decelerating to enter the Project site without impeding the flow of traffic along NH Route 125. As such, separate right-turn deceleration lanes are not recommended at this time.

- Where perpendicular parking is proposed, the drive aisle behind the parking should be a minimum of 23-feet in order to facilitate parking maneuvers.
- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).<sup>2</sup>
- A sidewalk should be provided along at least one side of the Project site roadways and along circulating roads within the Project site.
- Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided at all pedestrian crossings internal to the Project site.
- The embankment situated along the east side of NH Route 125 and north of the north Project site roadway should be regraded in order to provide the recommended minimum line of sight to and from the north along NH Route 125.
- Signs and landscaping to be installed as a part of the Project within intersection sight triangle areas should be designed and maintained so as not to restrict lines of sight.
- Snow windrows within sight triangle areas shall be promptly removed where such accumulations would impede sight lines.
- Bicycle parking should be provided at appropriate locations within the Project site to serve the municipal, retail and bank uses.

# **Off-Site**

# NH Route 125/Scruton Pond Road

The intersection of NH Route 125 at Scruton Pond Road has been identified by the Town as a priority location for a Road Safety Audit (RSA) in order to identify potential safety-related improvements at the intersection. In order to advance this effort, the Project proponent will facilitate the completion of a RSA in order to identify improvements for this intersection.

# NH Route 125/NH Route 9

One or more movements at the intersection of NH Route 125 at NH Route 9 were identified to be operating at or over capacity during the weekday and Saturday peak hours independent of the Project, with Project-related impacts defined as a predicted increase in motorist delay that resulted in a corresponding increase in vehicle queuing of up to five (5) vehicles. In an effort to reduce overall motorist delay and vehicle queuing at the intersection, the Project proponent will design and implement an optimal traffic signal timing and phasing plan subject to receipt of all necessary rights, permits and approvals.

# **Transportation Demand Management Measures**

Public transportation services are not currently provided in the vicinity of the Project site. In an effort to encourage the use of alternative modes of transportation to single-occupant vehicles, the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

<sup>&</sup>lt;sup>2</sup>Manual on Uniform Traffic Control Devices (MUTCD); Federal Highway Administration; Washington, D.C.; 2009.

- Information regarding public transportation services, maps, schedules and fare information will be posted in a central location and/or otherwise made available to residents and employees;
- Tenants of the commercial components of the Project will be encouraged to offer specific amenities to discourage off-site trips, including providing a break-room equipped with a microwave and refrigerator; offering direct deposit of paychecks; coordinating with a drycleaning service for on-site pick-up and delivery; allowing telecommuting or flexible work schedules; and other such measures to reduce overall traffic volumes and travel during peak traffic volume periods;
- Pedestrian and bicycle accommodations will be incorporated into the Project including sidewalks and bicycle parking in appropriate locations; and
- To the extent that public transportation services are provided along NH Route 125 in the future, an area should be reserved for a bus stop to be established.

With implementation of the above recommendations, safe and efficient vehicular, pedestrian and bicycle access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

# INTRODUCTION

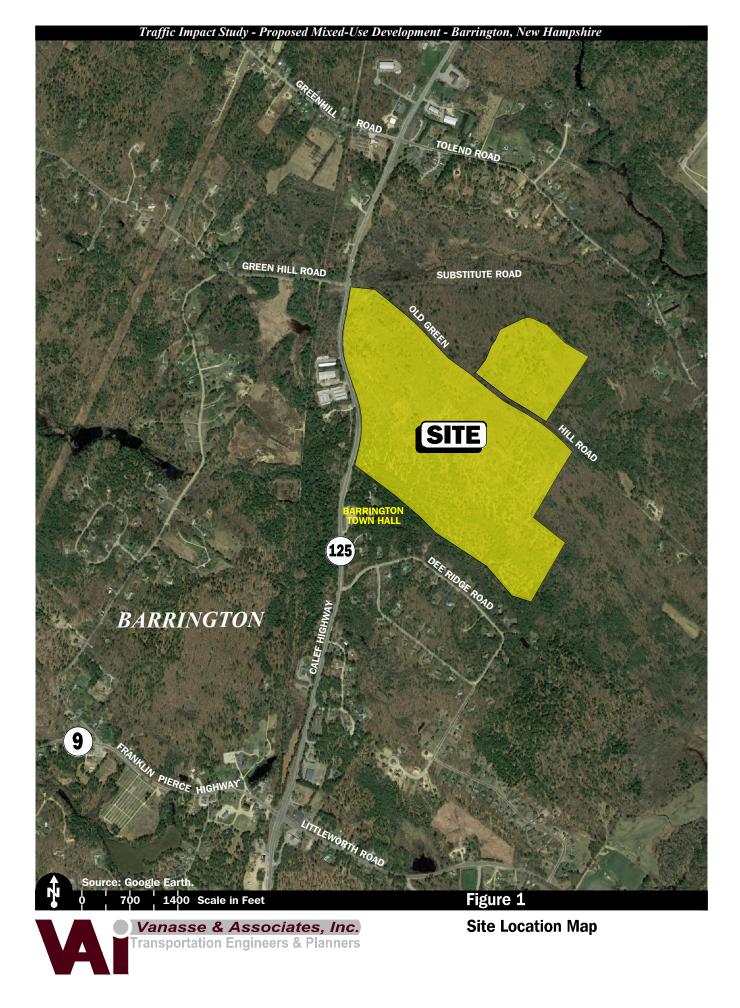
Vanasse & Associates, Inc. (VAI) has conducted a Traffic Impact Study (TIS) in order to determine the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use development to be located along the east side of NH Route 125 (Calef Highway) and south of Scruton Pond Road in Barrington, New Hampshire (hereafter referred to as the "Project"). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing traffic conditions and future traffic conditions, both with and without the Project, along NH Route 25 and at the following intersections defined in consultation with NHDOT: NH Route 125 at Greenhill Road and Tolend Road; NH Route 125 at Scruton Pond Road; and NH Route 125 at Franklin Pierce Highway and Littleworth Road (NH Route 9).

#### **PROJECT DESCRIPTION**

The Project will entail the phased construction of a mixed-use development that will include: 55 single-family homes;  $53,200\pm$  square feet (sf) of commercial space that may include retail and office space, a bank with a drive-through teller facility, contractor's storage and warehouse space; and donation of a parcel of land to the Town of Barrington for a municipal use. The Project site is located on two parcels of land situated along the east side of NH Route 125 and south of Scruton Pond Road (Town of Barrington Tax Map 223, Lots 24 and 26), and contains areas of open and wooded space and low-lying wetland areas. Figure 1 depicts the Project site location in relation to the existing roadway network.

Access to the Project will be provided by way of two (2) new roadways that will intersect the east side of NH Route 125 as follows: the north roadway will be situated opposite the driveway to 246-248 Calef Highway (Casella Sales & Marketing Inc. and 603 Self-Storage); the south roadway will be located approximately 2,175 feet south of Scruton Pond Road. An access easement will also be established to allow for a future connection between the Project site and property to the north of Old Green Hill Road.

On-site parking will be provided for the individual land uses in accordance with the requirements of the Town of Barrington Zoning Ordinance.



#### **STUDY METHODOLOGY**

This study was prepared in consultation with the Town of Barrington, the New Hampshire Department of Transportation (NHDOT) and the Strafford Regional Planning Commission (SRPC); was performed in general accordance with: i) the NHDOT guidelines for the preparation of Traffic Impact Studies (TISs); ii) the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports; and iii) the scoping determination issued by NHDOT for the Project; and was conducted in three distinct stages.

The first stage of the study involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics, pedestrian and bicycle facilities and public transportation services; observations of traffic flow; and the collection of daily and peak-period traffic counts.

In the second stage of the study, future conditions on the transportation system were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future demands on the transportation system that are expected due to growth independent of the Project. In accordance with NHDOT guidelines for the preparation of TISs and the scoping determination issued by NHDOT for the Project, four (4) future conditions were evaluated: 1) 2020 No-Build conditions <u>without</u> the Project; 2) 2020 Opening-Year Build conditions <u>with</u> the Project; 3) 2030 No-Build conditions <u>without</u> the Project; and 4) 2030 Build conditions (ten-year projection from opening-year) <u>with</u> the Project. The analyses conducted in stage two of the study identify existing or projected future roadway capacity and traffic safety issues.

The third stage of the study presents and evaluates measures to address roadway and intersection capacity issues and safety concerns, if any, identified in stages one and two of the study.

A comprehensive field inventory of existing conditions on the study area roadways was conducted in March 2019. The field investigation consisted of an inventory of existing roadway geometrics; pedestrian and bicycle facilities; traffic volumes; and operating characteristics; as well as posted speed limits and land use information within the study area. The study area that was evaluated for the Project was defined as a part of the scoping determination issued by NHDOT for the preparation of this study and included NH Route 25 and the following intersections: NH Route 125 at Greenhill Road and Tolend Road; NH Route 125 at Scruton Pond Road; and NH Route 125 at Franklin Pierce Highway (NH Route 9).

The following describes the study area roadway and intersections.

#### **GEOMETRY**

#### **Roadway**

#### NH Route 125 (Calef Highway)

NH Route 125 (Calef Highway) is a two-lane arterial roadway (Tier 2, Class II) under NHDOT jurisdiction that traverses the study area in a general north-south direction and provides access to the City of Rochester and NH Route 16 to the north of the study area and to US Route 4 to the south. Within the study area, NH Route 125 provides two 12 to 13-foot wide travel lanes separated by a double-yellow centerline with 2 to 10-foot wide marked shoulders and additional travel lanes provided at major intersections. Sidewalks are not provided along NH Route 125 within the study area. Illumination is provided intermittently by street lights mounted on wood or steel poles. The posted speed limit along NH Route 125 varies from 35 to 50 miles per hour (mph). Land use along NH Route 125 within the study area consists of residential, commercial and municipal properties, and areas of open and wooded space.

#### **Intersections**

Table 1 and Figure 2 summarize lane use, traffic control, and pedestrian and bicycle accommodations at the study area intersections as observed in March 2019.

Intersection	Traffic Control Type <sup>a</sup>	No. of Travel Lanes Provided	Shoulder Provided? (Yes/No/Width)	Pedestrian Accommodations? (Yes/No/Description)	Bicycle Accommodations? (Yes/No/Description)
NH Rte. 125/ Greenhill Rd./ Tolend Rd.	TS	1 left-turn lane, 1 through lane and 1 right-turn lane on NH Rte. 125 approaches; 1 general-purpose travel lane on Greenhill Rd. and Tolend Rd.	Yes; 2-4-feet on all approaches	No	Yes; Shared traveled- way <sup>b</sup>
NH Rte. 125/ Scruton Pond Rd.	S	1 general purpose travel lane on all approaches	Yes; 1-foot on Scruton Pond Rd. and 8 to 10-feet on NH Rte. 125	No	Yes; Shared traveled- way on NH Rte. 125
NH Rte. 125/ NH Rte. 9	TS	1 left-turn lane, 1 through lane and 1 right-turn lane on NH Rte. 125 northbound approach; 1 left-turn lane, 1 through lane and 1 through/right-turn lane on NH Rte. 125 southbound approach; 1 left-turn lane, 1 through lane and 1 right- turn lane on NH Rte. 9 approaches	Yes; 5 to 6-feet on NH Rte. 125 and 2 to 10 feet on NH Rte. 9	No	Yes; Shared traveled- way

# Table 1STUDY AREA INTERSECTION DESCRIPTION

 approaches
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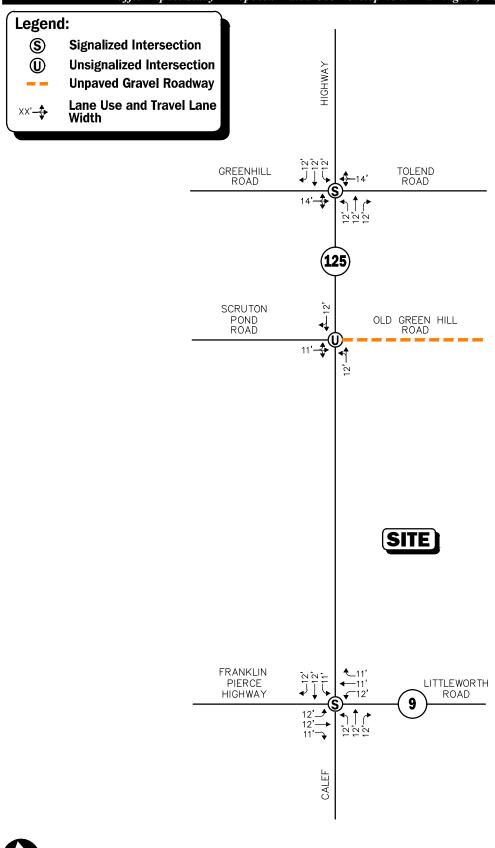
 aTS = traffic signal control; S = STOP-sign control; Y = YIELD-sign control; R = rotary/roundabout control; NC = no control present.

 bCombined shoulder and travel lane width equal to or exceed 14 feet.

# **EXISTING TRAFFIC VOLUMES**

In order to determine existing traffic-volume demands and flow patterns within the study area, automatic traffic recorder (ATR) counts, manual turning movement counts (TMCs) and vehicle classification counts were completed in March 2019. The ATR counts were conducted on NH Route 125 south of Scruton Pond Road over a continuous 72-hour period from March 7<sup>th</sup> (Thursday) through 9<sup>th</sup> (Saturday) in order to record weekday daily and Saturday traffic conditions along this roadway over an extended period, with weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period manual TMCs performed at the study intersections on March 7, 2019 (Thursday), and during the Saturday midday peak period (11:00 AM to 2:00 PM) on March 9, 2019 in accordance with the scoping determination issued by NHDOT for the preparation of this study. These time periods were selected for analysis purposes as they are representative of the peak traffic volume hours for both the Project and the adjacent roadway network.





Vanasse & Associates, Inc. Transportation Engineers & Planners



Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

Not To Scale

#### Seasonal Adjustments

In order to evaluate the potential for seasonal fluctuation of traffic volumes within the study area, 2018 peak-hour and average daily traffic count data were reviewed for NHDOT count station No. 02389090, which is located on Spaulding Turnpike (NH Route 16), south of NH Route 125 (Exit 12), in Rochester. Based on a review of this data, it was determined that traffic volumes for the month of March are approximately 33 percent <u>below</u> peak-month conditions and, therefore, the raw traffic count data that forms the basis of this assessment was adjusted upward accordingly to represent peak-month conditions.

The 2019 Existing weekday morning, weekday evening and Saturday midday peak-month, peakhour traffic volumes are depicted on Figure 3 and are summarized in Table 1. Note that the peakhour traffic volumes referenced in Table 1 were obtained from the TMCs and are reflected on the aforementioned figure.

Location/Peak Hour	AWT <sup>a</sup>	Saturday <sup>b</sup>	VPH <sup>c</sup>	K Factor <sup>d</sup>	Directional Distribution <sup>e</sup>
NH Route 125, south of Scruton Pond Road	20,230	17,050			
Weekday Morning (7:00 – 8:00 AM)			1,720	8.5	68.0% SB
Weekday Evening (4:00 – 5:00 PM)			1,733	8.6	63.8% NB
Saturday Midday (11:00 AM - 12:00 PM)			1,415	8.3	52.6% NB

# Table 12019 EXISTING PEAK-MONTH TRAFFIC VOLUMES

<sup>a</sup>Average weekday traffic in vehicles per day.

<sup>b</sup>Vehicles.

<sup>c</sup>Vehicles per hour.

<sup>d</sup>Percent of daily traffic occurring during the peak hour.

<sup>e</sup>Percent traveling in peak direction.

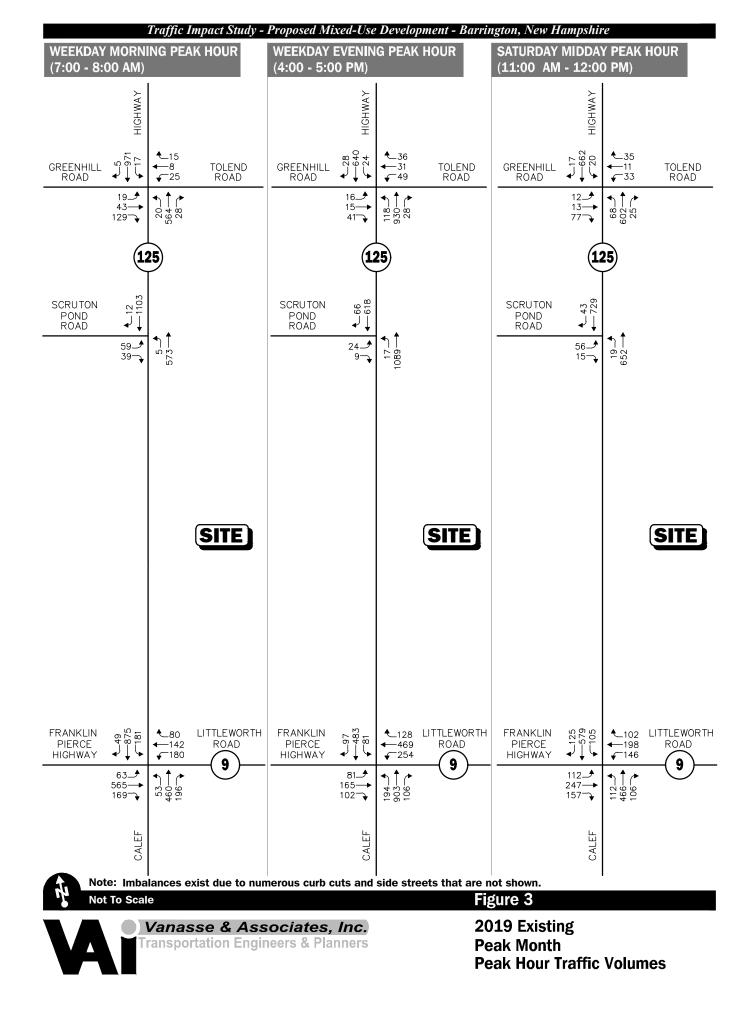
NB = northbound; SB = southbound.

As can be seen in Table 2, NH Route 125 in the vicinity of the Project site was found to accommodate approximately 20,230 vehicles on an average weekday and 17,050 vehicles on a Saturday (two-way, 24-hour volumes), with approximately 1,720 vehicles per hour (vph) during the weekday morning peak-hour, 1,733 vph during the weekday evening peak-hour and 1,415 vph during the Saturday midday peak-hour.

# PEDESTRIAN AND BICYCLE FACILITIES

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in March 2019. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadway and at the study intersection, as well as the location of existing and planned future bicycle facilities. Sidewalks and formal bicycle facilities are not currently provided within the study area. That being said, the study area roadways generally provide sufficient width (combined travel lane and shoulder) to support bicycle travel in a shared traveled-way condition<sup>3</sup> and NH Route 125 is designated as a bike route.

<sup>&</sup>lt;sup>3</sup>A minimum combined travel lane and paved shoulder width of 14-feet is required to support bicycle travel in a shared traveled-way condition.



### PUBLIC TRANSPORTATION

Regularly scheduled public transportation services are not currently provided within the study area. The closest public transportation options are available in the Cities of Dover and Rochester, where bus services are provided by the Cooperative Alliance For Seacoast Transportation (COAST). Regional bus services are available at the Portsmouth Transportation Center and air transportation is available at the Portsmouth International Airport.

### SPOT SPEED MEASUREMENTS

Vehicle travel speed measurements were performed on NH Route 125 in the vicinity of the Project site over a continuous 72-hour period (Thursday through Saturday) in conjunction with the ATR counts. Table 3 summarizes the results of the vehicle travel speed measurements.

	NH Route 125			
	Northbound	Southbound		
Mean Travel Speed (mph)	55	53		
85 <sup>th</sup> Percentile Speed (mph)	59	58		
Posted Speed Limit (mph)	50	50		

# Table 3VEHICLE TRAVEL SPEED MEASUREMENTS

mph = miles per hour.

As can be seen in Table 3, the mean vehicle travel speed along NH Route 125 in the vicinity of the Project site was found to be approximately 55 mph in the northbound direction and 53 mph southbound. The average measured 85<sup>th</sup> percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled at or below, was found to be approximately 59 mph northbound and 58 mph southbound, which is 8 to 9 mph above the posted speed limit in the vicinity of the Project site (50 mph). The 85<sup>th</sup> percentile speed is used as the basis of engineering design and in the evaluation of sight distances, and is often used in establishing posted speed limits.

# MOTOR VEHICLE CRASH DATA

A town-wide assessment of motor vehicle crashes was completed by the Barrington Police Department in 2018 in order to prioritize funding for Road Safety Audits (RSAs). This assessment identified that three roadways accounted for 62 percent of the total number of motor vehicle crashes that were reported within the Town: NH Route 125, NH Route 9 and Washington Street (NH Route 202). For the 10-year period 2008 through 2017, NH Route 125 was reported to have experienced an average of approximately 42 crashes per year, with 76 crashes reported to have occurred at the NH Route 125/NH Route 9 intersection and 13 crashes reported at the NH Route 125/Scruton Pond Road intersection (one of which resulted in a fatality). The NH Route 125/Greenhill Road/Tolend Road intersection was not directly included in the

assessment; however, a 2012 Conference Report prepared by NHDOT in reference to the then planned (and subsequently completed) installation of a traffic control signal and associated intersection geometric improvements was included in the attachments. At that time, a total of 21 motor vehicle crashes were reported at the NH Route 125/Greenhill Road/Tolend Road intersection, one of which resulted in a fatality. A review of NHDOT crash mapping for the period 2002 through 2016 indicates that 35 crashes were reported at or in the vicinity of the NH Route 125/Greenhill Road/Tolend Road intersection.

The crash assessment concluded that while the NH Route 125/NH Route 9 intersection experienced the highest number of motor vehicle crashes, the improvements that have been completed at the intersection have reduced the severity of the crashes. A similar conclusion was inferred for the NH Route 125/Greenhill Road/Tolend Road intersection, as this intersection was also the subject of recently completed improvements. The NH Route 125/Scruton Pond Road intersection was specifically identified by the Police Department as a priority location for a RSA, with identified concerns relating to approach speeds and the horizontal and vertical alignment of NH Route 125 approaching the intersection. Specific recommendations to advance safety-related improvements at this intersection have been identified and are detailed in the *Recommendations* section of this assessment.

Traffic volumes in the study area were projected to the years 2020 and 2030, which reflect the anticipated opening-year of the Project and a ten-year planning horizon from opening-year, respectively, consistent with NHDOT traffic study guidelines and the scoping determination issued by NHDOT for the preparation of this study. The future condition traffic-volume projections incorporate identified specific development projects by others, as well as general background traffic growth as a result of development external to the study area and presently unforeseen projects. Anticipated Project-generated traffic volumes superimposed upon the 2020 and 2030 No-Build traffic volumes reflect the Build conditions with the Project.

# FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic. However, the drawback of this procedure is that the potential growth in population and development external to the study area would not be accounted for in the traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

#### **Specific Development By Others**

The Town of Barrington Land Use Department and NHDOT were contacted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on these discussions, the following project was identified for review in conjunction with this assessment:

Convenience Store/Gas Station, 491 Calef Highway, Barrington, New Hampshire. This project is currently under construction and includes a 5,000± sf convenience store and an associated gasoline fueling facility.

Traffic volumes associated with the aforementioned specific development project by others were obtained from the *Traffic Impact and Site Access Study* that was prepared by Pernaw & Company, Inc. in support of the project and using trip-generation information available from the Institute of Transportation Engineers  $(ITE)^4$  for the appropriate land use, and were assigned onto the study area roadway network based on existing traffic patterns where no other information was available. No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

# **General Background Traffic Growth**

A review of historic traffic growth information compiled by NHDOT for the Town of Barrington was undertaken in order to determine general traffic growth trends. Based on a review of this data and consistent with the scoping determination issued by NHDOT for the preparation of this study, a 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

# **Roadway Improvement Projects**

The Town of Barrington and NHDOT were contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, no roadway improvement projects aside from routine maintenance activities were identified to be planned within the study area at this time.

# <u>No-Build Traffic Volumes</u>

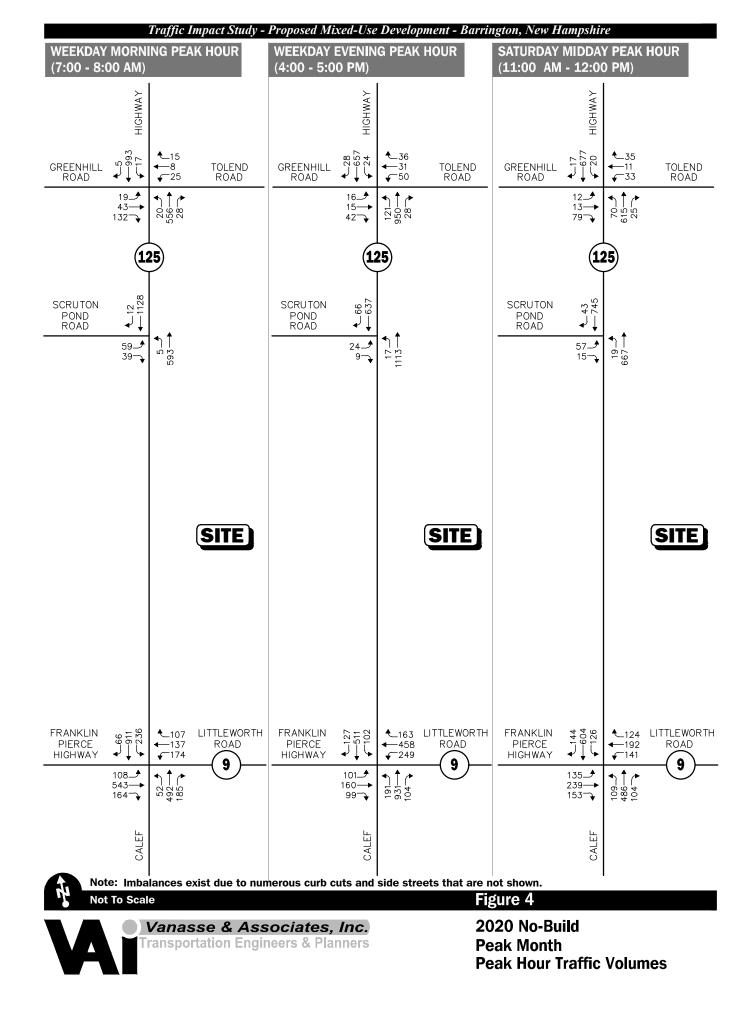
The 2020 and 2030 No-Build peak-month peak-hour traffic volumes were developed by applying the 1.0 percent per year compounded annual background traffic growth rate to the 2019 Existing peak-month peak-hour traffic volumes and then adding the traffic associated with the identified specific development project by others. The resulting 2020 No-Build weekday morning, weekday evening and Saturday midday peak-month peak-hour traffic volumes are shown on Figure 4, with the corresponding 2030 No-Build peak-month peak-hour traffic volumes shown on Figure 5.

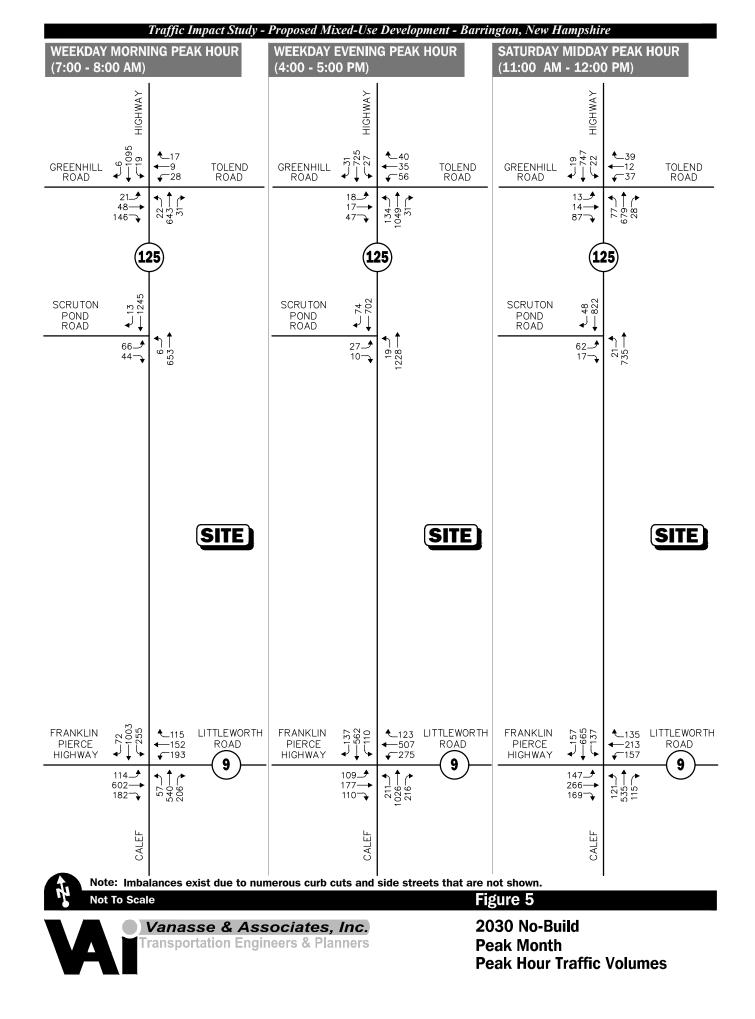
# PROJECT-GENERATED TRAFFIC

Design year (2020 and 2030) Build traffic volumes for the study area roadways were determined by estimating Project-generated traffic volumes and assigning these volumes on the study roadways. The following sections describe the procedures used to develop the Build condition traffic volume networks.

The Project will entail the phased construction of a mixed-use development that will include: 55 single-family homes;  $53,200\pm$  sf of commercial space that may include retail and office space, a bank with a drive-through teller facility, contractor's storage and warehouse space; and donation of a parcel of land to the Town of Barrington for a municipal use. In order to develop the traffic

<sup>&</sup>lt;sup>4</sup>Ibid 1.





characteristics of the Project, trip-generation statistics published by the ITE<sup>5</sup> for similar land uses as those proposed were used. ITE Land Use Codes (LUCs) 150, *Warehousing*; 180, *Specialty Trade Contractor*; 210, *Single-Family Detached Housing*; 710, *General Office*; 730, *Government Office Building*; 820, *Shopping Center*; and 912, *Drive-In Bank*; were used to establish the base trip-generation calculations for the Project.

### **Internal Trips**

It is expected that a portion of the residents, employees and customers of the Project may visit one or more of the uses that are proposed within the development, such as a resident that visits the municipal building, shops at the retail store or patronizes the bank. Such trips remain "internal" to the Project site and do not constitute additional traffic "external" to the site. This interaction between uses is not accounted for when the traffic volume projections are completed on an individual land use basis. Given that the exact uses other than the municipal building are not yet defined, an internal trip credit (reduction) was not applied to the base trip-generation calculations for the Project.

### **Pass-By Trips**

Not all of the trips expected to be generated by the retail and bank components of the Project will be new trips on the roadway network. A significant portion of these trips will consist of pass-by trips or vehicles already traveling along NH Route 125 for other purposes that will patronize the Project in conjunction with their trip and then continue on to their original destination. These trips are not new trips on the roadway network as a result of the Project. Statistics published by the ITE<sup>6</sup> indicate that on average, up to 34 percent of the trips generated by retail uses and 38 percent of the trips generated by a bank with drive-through window may consist of pass-by trips. As such and pursuant to scoping determination issued by NHDOT for the preparation of this study, a pass-by trip rate of up to 34 percent was applied to the trip-generation calculations for the retail component of the Project and pass-by trip rate of up to 38 percent was applied to the bank component.

Table 4 summarizes the anticipated traffic characteristics of the Project using the above methodology.

<sup>&</sup>lt;sup>5</sup>Ibid 1.

<sup>&</sup>lt;sup>6</sup>*Trip Generation Handbook*, 3<sup>rd</sup> Edition, A Recommended Practice of the Institute of Transportation Engineers; Institute of Transportation Engineers; Washington, D.C.; September 2017.

# Table 4TRIP GENERATION SUMMARY

Time Period/Direction	(A) Single- Family Homes (55 Units) <sup>a</sup>	(B) Office Building (20,000 sf) <sup>b</sup>	(C) Municipal Building (10,000 sf) <sup>c</sup>	(D) Warehouse (8,000 sf) <sup>d</sup>	(E) Contractor/Trade Storage Building (14,000 sf) <sup>e</sup>	(F) Retail Space (8,000 sf) <sup>f</sup>	(G) Bank (3,200 sf) <sup>g</sup>		(I) Pass-By Trips <sup>h</sup>
Average Weekday Daily Entering	300	112	113	29	72	151	191	968	102
<u>Exiting</u> Total	$\frac{300}{600}$	<u>112</u> 224	$\frac{113}{226}$	<u>29</u> 58	<u>72</u> 144	$\frac{151}{302}$	<u>191</u> 382	<u>968</u> 1,936	<u>102</u> 204
Weekday Morning Peak Hour									
Entering	11	20	25	20	17	5	17	115	4
<u>Exiting</u> Total	<u>33</u> 44	$\frac{3}{23}$	$\frac{8}{33}$	$\frac{6}{26}$	$\frac{6}{23}$	$\frac{3}{8}$	$\frac{13}{30}$	$\frac{72}{187}$	$\frac{4}{8}$
Weekday Evening Peak Hour									
Entering	36	4	4	8	9	14	32	107	16
<u>Exiting</u> Total	<u>21</u> 57	<u>21</u> 25	<u>13</u> 17	<u>21</u> 29	$\frac{19}{28}$	$\frac{16}{30}$	<u>33</u> 65	$\frac{144}{251}$	$\frac{16}{32}$
Saturday									
Entering	280	22	0	1	6	185	139	633	101
Exiting	<u>280</u>	<u>22</u> 44	$\frac{0}{0}$	$\frac{1}{2}$	$\frac{6}{12}$	185	139	633	<u>101</u>
Total	560	44	0	2	12	370	278	1,266	202
Saturday Midday Peak Hour									
Entering	35	6	0	0	2	19	43	105	21
Exiting	<u>29</u> 64	$\frac{5}{11}$	$\frac{0}{0}$	$\frac{0}{0}$	2 <u>5</u> 7	$\frac{17}{36}$	$\frac{41}{84}$	$\frac{97}{202}$	$\frac{21}{42}$
Total	64	11	0	0	7	36	84	202	42

<sup>a</sup>Based on ITE LUC 210, Single-Family Detached Housing.

<sup>b</sup>Based on ITE LUC 710, General Office Building.

<sup>e</sup>Based on ITE LUC 730, Government Office Building. Closed on Saturday.

<sup>d</sup>Based on ITE LUC 150, *Warehousing*.

<sup>e</sup>Based on ITE LUC 180, Specialty Trade Contractor. Saturday trip projections were developed using a proportionate ratio of the Saturday trip rate to the average weekday trip rate and the weekday evening peak-hour trip rate to the Saturday midday peak-hour trip rate obtained from LUC 150.

<sup>f</sup>Based on ITE LUC 820, *Shopping Center*. Average trip rate used due to small size of retail component.

<sup>g</sup>Based on ITE LUC 912, Drive-in Bank.

<sup>h</sup>A Pass-by trip rate was applied to the traffic volumes associated with the retail and bank uses as follows: *Retail* - average weekday daily - 30 percent; weekday morning peak-hour - 0 percent; weekday evening peak-hour - 34 percent; Saturday and Saturday midday peak-hour - 26 percent; *Bank* - average weekday daily - 30 percent; weekday morning peak-hour - 29 percent; weekday evening peak-hour - 35 percent; Saturday and Saturday midday peak-hour - 36 percent; Saturday and Saturday daily - 30 percent; weekday morning peak-hour - 29 percent; weekday evening peak-hour - 35 percent; Saturday and Saturday midday peak-hour - 38 percent.

	J = H - I) ew Trips
-	866 <u>866</u> 1,732
	111 <u>68</u> 179
	91 <u>128</u> 219
-	532 532 1,064
	84 <u>76</u> 160

#### **Project-Generated Traffic Summary**

As can be seen in Table 4, using the aforementioned methodology and after applying reductions to account for pass-by trips, the Project is expected to generate approximately 1,732 new vehicle trips on an average weekday and 1,064 new vehicle trips on a Saturday (both two-way volumes over the operational day of the Project), with approximately 179 new vehicle trips (111 vehicles entering and 68 exiting) expected during the weekday morning peak-hour, 219 new vehicle trips (91 vehicles entering and 128 exiting) expected during the weekday evening peak-hour, and 160 new vehicle trips (84 vehicles entering and 76 exiting) expected during the Saturday midday peak-hour.

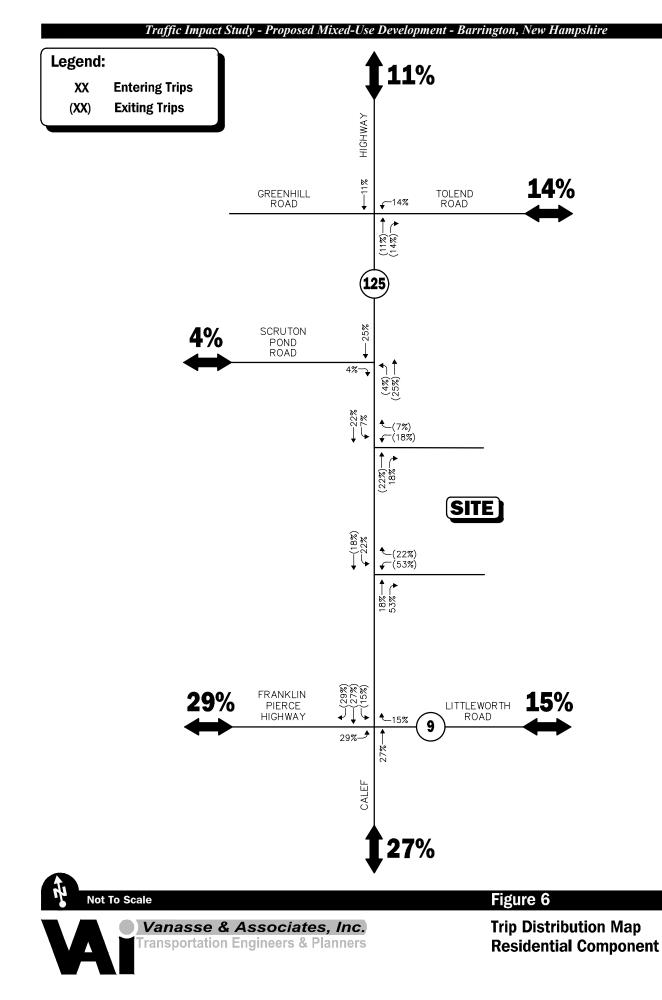
#### TRIP DISTRIBUTION AND ASSIGNMENT

Separate trip-distribution patterns were developed for the residential and commercial components of the Project given the differing nature and purpose of the trips associated with these uses. For the residential component of the Project, the directional distribution was determined based on a review of Journey-to-Work data obtained from the U.S. Census for persons residing in the Town of Barrington and then refined based on a review of existing traffic patterns within the study area during the peak periods. For the commercial component of the Project, the directional distribution was determined based on a review of existing traffic patterns within the study area. The general trip distribution for the commercial and residential components for the Project are graphically depicted on Figures 6 and 7, respectively. Traffic volumes expected to be generated by the Project were assigned onto the study area roadway network as shown on Figure 8.

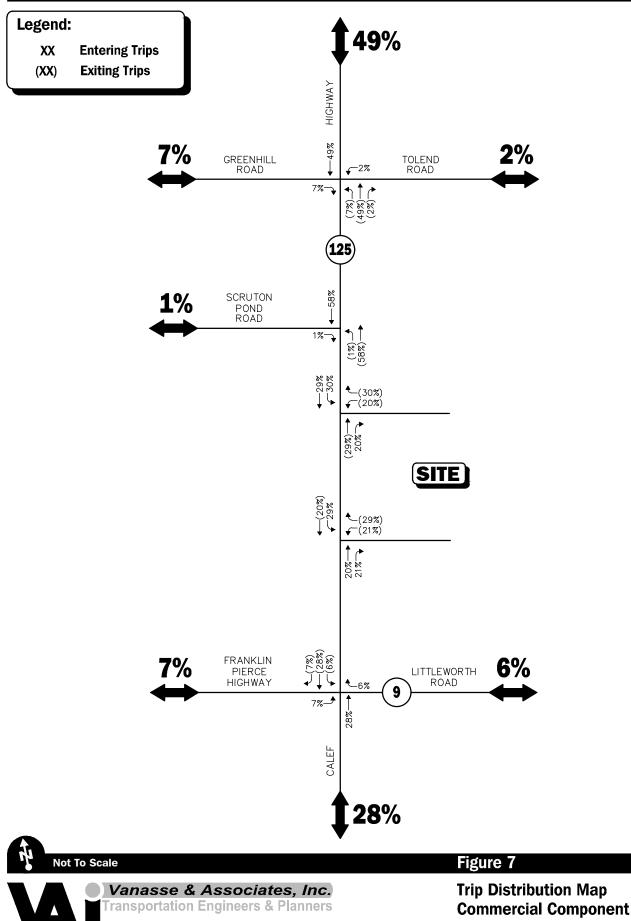
#### **FUTURE TRAFFIC VOLUMES - BUILD CONDITION**

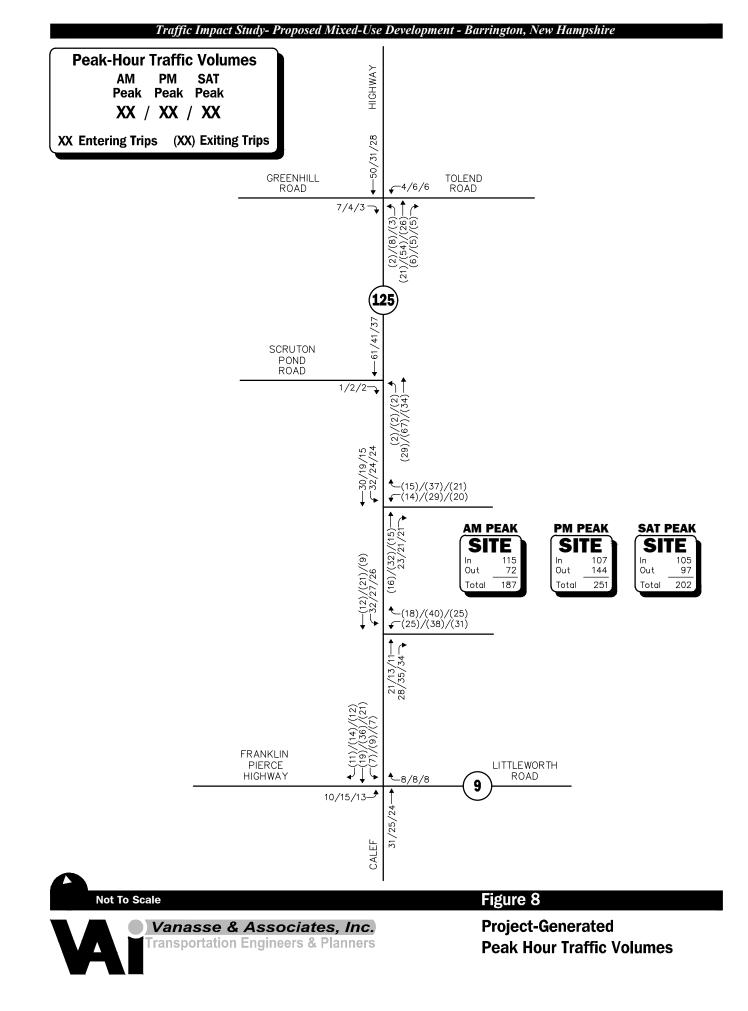
The 2020 Opening-Year and 2030 Build condition traffic-volumes were developed by adding Project-generated traffic to the corresponding 2020 and 2030 No-Build peak-month peak-hour traffic-volumes. The resulting 2020 Opening-Year Build condition weekday morning, weekday evening and Saturday midday peak-month peak-hour traffic volumes are graphically depicted on Figure 9, with the corresponding 2030 Build condition peak-month peak-hour traffic volumes depicted on Figure 10.

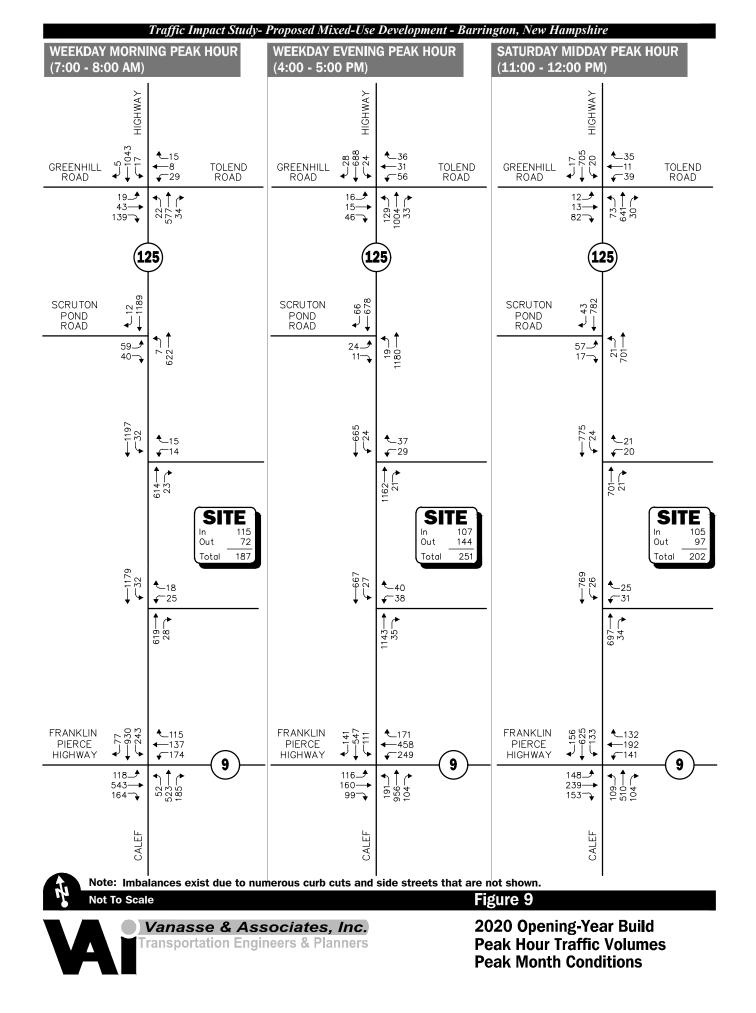
A summary of peak-hour projected traffic-volume increases outside of the study area that is the subject of this assessment is shown in Table 5. These volumes are based on the expected increases from the Project.

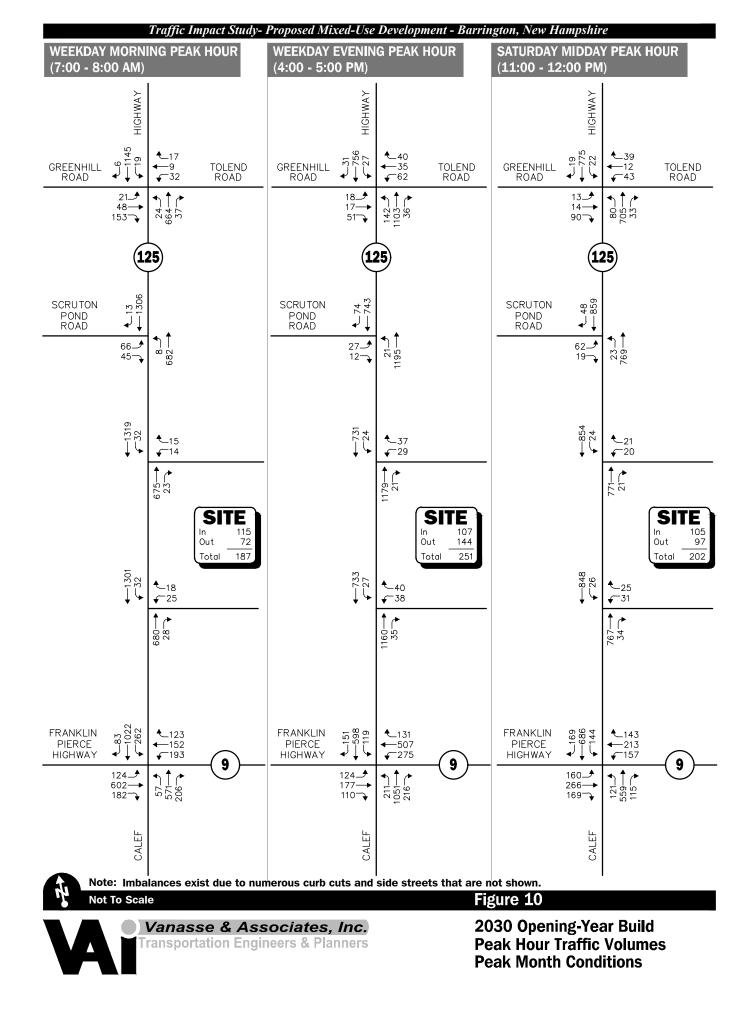












	2019	2020/2030	2020/2030	Traffic Volume Increase Over No-Build	Percent Increase Over No-Build
Location/Peak Hour	Existing	No-Build	Build	(2020/2030)	(2020/2030)
NH Route 125, north of Greenhill Road/					
Tolend Road:					
Weekday Morning	1,591	1,605/1,801	1,676/1,872	71	4.4/3.9
Weekday Evening	1,674	1,711/1,890	1,796/1,975	85	5.0/4.5
Saturday Midday	1,348	1,376/1,519	1,430/1,573	54	3.9/3.6
NH Route 125, south of NH Route 9:					
Weekday Morning	1,933	1,978/2,181	2,028/2,231	50	2.5/2.3
Weekday Evening	2,042	2,085/2,400	2,146/2,461	61	2.9/2.5
Saturday Midday	1,566	1,597/1,762	1,642/1,807	45	2.8/2.6
Tolend Road, east of NH Route 125:					
Weekday Morning	136	136/152	146/162	10	7.4/6.6
Weekday Evening	183	184/206	195/217	11	6.0/5.3
Saturday Midday	137	137/152	148/163	11	8.0/7.2
Greenhill Road, west of NH Route 125:					
Weekday Morning	224	227/252	236/261	9	4.0/3.6
Weekday Evening	249	253/282	265/294	12	4.7/4.3
Saturday Midday	198	202/222	208/228	6	3.0/2.7
NH Route 9, east of NH Route 125:					
Weekday Morning	1,344	1,382/1,523	1,397/1,538	15	1.1/1.0
Weekday Evening	1,203	1,236/1,408	1,253/1,425	17	12.2/11.3
Saturday Midday	904	926/1,023	941/1,038	15	1.6/1.5
NH Route 9, west of NH Route 125:					
Weekday Morning	1,121	1,070/1,179	1,091/1,200	21	2.0/1.8
Weekday Evening	1,108	1,136/1,251	1,165/1,280	29	2.6/2.3
Saturday Midday	951	972/1,073	997/1,098	25	2.6/2.3
Scruton Pond Road, west of NH Route 125:					
Weekday Morning	115	115/129	118/132	3	2.6/2.3
Weekday Evening	116	116/130	120/134	4	3.4/3.1
Saturday Midday	133	134/148	138/152	4	3.0/2.7

# Table 5PEAK-HOUR TRAFFIC-VOLUME INCREASES

As shown in Table 5, Project-related traffic-volume increases outside of the study area relative to 2020 and 2030 No-Build conditions are anticipated to range from 1.0 to 12.2 percent during the peak periods, with vehicle increases shown to range from 3 to 85 vehicles. *When dispersed over the peak-hour, such increases would not result in a significant impact (increase) on motorist delays or vehicle queuing outside of the immediate study area that is the subject of this assessment.* 

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build and Build traffic volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

# **METHODOLOGY**

# Levels of Service

A primary result of capacity analyses is the assignment of level of service to traffic facilities under various traffic-flow conditions.<sup>7</sup> The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

<sup>&</sup>lt;sup>7</sup>The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual;* Transportation Research Board; Washington, DC; 2010.

#### **Signalized Intersections**

The six levels of service for signalized intersections may be described as follows:

- LOS A describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than LOS A.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- LOS F describes operations with high control delay values that often occur with oversaturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections are calculated using the operational analysis methodology of the 2000 Highway Capacity Manual and implemented as a part of the Synchro® 10 software. This method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on delay. Level-of-service designations are based on the criterion of control or signal delay per vehicle. Control or signal delay is a measure of driver discomfort, frustration, and fuel consumption, and includes initial deceleration delay approaching the traffic signal, queue move-up time, stopped delay and final acceleration delay. Table 6 summarizes the relationship between level of service and control delay. The tabulated control delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

#### Table 6 LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS<sup>a</sup>

Control (Signal) Delay Per Vehicle (Seconds)
<10.0
10.1 to 20.0
20.1 to 35.0
35.1 to 55.0
55.1 to 80.0
>80.0

<sup>a</sup>Source: *Highway Capacity Manual*, Transportation Research Board; Washington, DC; 2000; page 16-2.

### **Unsignalized Intersections**

The six levels of service for unsignalized intersections may be described as follows:

- LOS A represents a condition with little or no control delay to minor street traffic.
- LOS B represents a condition with short control delays to minor street traffic.
- LOS C represents a condition with average control delays to minor street traffic.
- LOS D represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the 2010 *Highway Capacity Manual*.<sup>8</sup> Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the 2010 *Highway Capacity Manual*. Table 7 summarizes the relationship between level of service and average control delay for two way stop controlled and all-way stop controlled intersections.

<sup>&</sup>lt;sup>8</sup>*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

#### Table 7 **LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS<sup>a</sup>**

Level-Of-Service by V	Average Control Delay		
$v/c \le 1.0$	v/c > 1.0	(Seconds Per Vehicle)	
А	F	≤10.0	
В	F	10.1 to 15.0	
С	F	15.1 to 25.0	
D	F	25.1 to 35.0	
E	F	35.1 to 50.0	
F	F	>50.0	

<sup>a</sup>Source: Highway Capacity Manual; Transportation Research Board; Washington, DC; 2010; page 19-2.

#### **Vehicle Queue Analysis**

Vehicle queue analyses are a direct measurement of an intersection's ability to process vehicles under various traffic control and volume scenarios and lane use arrangements. The vehicle queue analysis was performed using the Synchro® intersection capacity analysis software which is based upon the methodology and procedures presented in the 2010 Highway Capacity Manual. The Synchro® vehicle queue analysis methodology is a simulation based model which reports the number of vehicles that experience a delay of six seconds or more at an intersection. For signalized intersections, Synchro® reports both the average (50<sup>th</sup> percentile) the 95<sup>th</sup> percentile vehicle queue. For unsignalized intersections, Synchro® reports the 95<sup>th</sup> percentile vehicle queue. Vehicle queue lengths are a function of the capacity of the movement under study and the volume of traffic being processed by the intersection during the analysis period. The 95<sup>th</sup> percentile vehicle queue is the vehicle queue length that will be exceeded only 5 percent of the time, or approximately three minutes out of sixty minutes during the peak one hour of the day (during the remaining fifty-seven minutes, the vehicle queue length will be less than the 95<sup>th</sup> percentile queue length).

#### **ANALYSIS RESULTS**

Level-of-service and vehicle queue analyses were conducted for 2019 Existing, 2020 and 2030 No-Build, and 2020 Opening-Year and 2030 Build peak-month conditions for the study area intersections. The results of the intersection capacity and vehicle queue analyses are summarized in Tables 8 and 9, with detailed analysis results presented in the Appendix.

The following is a summary of the level-of-service and vehicle queue analysis results. For context, we note that an LOS of "D" or better is generally defined as "acceptable" operating conditions.

#### **Signalized Intersections**

#### NH Route 125 at Greenhill Road and Tolend Road

Under 2019 Existing and 2020 No-Build peak-month conditions, this signalized intersection was shown to operate at an overall LOS B during the weekday morning, weekday evening, and Saturday

midday peak hours. Under 2030 No-Build peak-month conditions, overall operating conditions were shown to degrade from LOS B to LOS C during the weekday morning and evening peak hours as a result of traffic volume increases independent of the Project, and to remain operating at LOS B during the Saturday midday peak-hour.

Under 2020 Opening-Year Build peak-month conditions with the addition of Project-related traffic, overall operating conditions were shown to degrade from LOS B to LOS C during the weekday morning and evening peak-hours as a result of an increase in overall average motorist delay of up to 4.4 seconds, and to remain at operating at an overall LOS B during the Saturday midday peak-hour, with no movement reported to be operating below LOS D (as previously mentioned, generally defined as the limit of acceptable traffic operations). Under 2030 Build peak-month conditions with the addition of project-related traffic, overall operating conditions were shown to degrade from LOS C to LOS D during the weekday morning peak-hour as a result of an increase in average motorist delay of 8.2 seconds, and to remain operating at LOS C during the weekday evening peak-hour and at LOS B during the Saturday midday peak-hour. One movement (through movements along NH Route 125 southbound) was shown to operate below LOS D during the weekday morning peak-hour as a result of the addition of Project-related traffic. Vehicle queues at the intersection were shown to range from 0 to 38 vehicles during the peak periods. The Project was shown to result in a predicted increase in vehicle queuing at the intersection of up to 3 vehicles.

#### NH Route 125 at Greenhill Road and Tolend Road

Under 2019 Existing, 2020 No-Build and 2030 No-Build peak-month conditions, this signalized intersection was shown to operate at an overall LOS F during the weekday morning and evening peak hours, and at LOS D during the Saturday midday peak-hour. Under 2020 Opening-Year Build peak-month conditions with the addition of project-related traffic, overall operating conditions were shown to remain at LOS F during the weekday morning and evening peak hours, and at LOS D during the Saturday morning and evening peak hours, and at LOS D during the weekday morning and evening peak hours, and at LOS D during the Saturday midday peak-hour (no change over No-Build conditions). Under 2030 Build peak-month conditions with the addition of project related traffic, overall operating conditions were shown to remain at LOS F during the weekday morning and evening peak hours, and to degrade from LOS D to LOS E during the Saturday midday peak-hour as a result of a predicted increase in overall average motorist delay of 5.0 seconds. Vehicle queues at the intersection were shown to range from 0 to 87 vehicles during the peak periods. The Project was shown to result in a predicted increase in vehicle queuing at the intersection of up to 5 vehicles.

#### **Unsignalized Intersections**

#### NH Route 125 at Scruton Pond Road

Under 2019 Existing, 2020 No-Build, 2020 Opening-Year Build, 2030 No-Build and 2030 Build peak-month conditions, the critical movements at this unsignalized intersection (all movements from Scrunton Pond Road) were shown to operate at LOS F during the weekday morning, weekday evening and Saturday midday peak hours as a result of the relatively large volume of conflicting traffic on NH Route 125 during the peak hours independent of the Project. Vehicle queues on the Scruton Pond Road approach were shown to range from 3 to 13 vehicles during the peak periods. The project was shown to result in a predicted increase in vehicle queuing at the intersection of up to two (2) vehicles.

#### NH Route 125 at the North Project Site Roadway

Under 2020 Opening-Year Build and 2030 Build peak-month conditions, the critical movements at this unsignalized intersection (all movements exiting the Project site) were shown to operate at LOS F during the weekday morning and evening peak hours, and at LOS E during the Saturday midday peak-hour. Vehicle queues exiting the Project site were shown to range from 1 to 5 vehicles during the peak periods, with negligible vehicle queuing predicted along NH Route 125.

#### NH Route 125 at the South Project Site Roadway

Under 2020 Opening-Year Build peak-month conditions, the critical movements at this unsignalized intersection (all movements exiting the Project site) were shown to operate at LOS F during the weekday morning and evening peak hours, and at LOS E during the Saturday midday peak hour. Under 2030 Build peak-month conditions, the critical movement were shown to remain operating at LOS F during the weekday morning and evening peak hours, and to degrade to LOS F during the Saturday midday peak hour. Vehicle queues exiting the Project site were shown to range from 2 to 6 vehicles during the peak periods, with negligible vehicle queuing predicted along NH Route 125.

# Table 8 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

		2019 1	Existing			2020 N	lo-Build			2020 Openin	ng Year Bu	ild		2030 1	No-Build			2030	) Build	
Signalized Intersection/ Peak Hour/Movement	V/C <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	$\begin{array}{c} Queue^d \\ 50^{th}  /95^{th} \end{array}$	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95 <sup>th</sup>	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95 <sup>th</sup>	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95 <sup>th</sup>	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95
I Route 125 at Greenhill Road and lend Road																				
Weekday Morning:																				
Greenhill Road EB LT/TH/RT	0.52	32.3	С	2/5	0.52	32.2	С	2/5	0.53	32.3	С	2/5	0.59	33.0	С	$2/6^{f}$	0.60	33.5	С	$2/6^{1}$
Tolend Road WB LT/TH/RT	0.35	31.5	С	1/2	0.35	31.4	С	1/2	0.45	32.9	С	1/2	0.41	31.1	С	1/2	0.52	33.5	С	1/3
NH Route 125 NB LT	0.10	10.9	В	0/1	0.11	12.0	В	0/1	0.13	14.6	В	0/1	0.13	16.6	В	0/1	0.14	16.6	В	0/1
NH Route 125 NB TH	0.50	6.8	А	4/11	0.50	6.8	А	4/10	0.52	7.0	А	4/11	0.60	8.9	А	5/13	0.62	9.2	А	5/14
NH Route 125 NB RT	0.02	4.4	А	0/0	0.02	4.4	А	0/0	0.03	4.5	А	0/0	0.03	5.0	А	0/0	0.03	5.1	А	0/0
NH Route 125 SB LT	0.03	4.2	А	0/1	0.03	4.2	А	0/1	0.04	4.3	А	0/1	0.04	4.8	А	0/1	0.05	4.9	А	0/1
NH Route 125 SB TH	0.89	20.2	С	$10/30^{f}$	0.91	22.7	С	$10/31^{f}$	0.96	30.8	С	$11/34^{f}$	1.02	46.4	D	13/36 <sup>f</sup>	1.07	61.9	Е	15/38
NH Route 125 SB RT	0.00	4.8	А	0/0	0.00	4.8	А	0/0	0.00	4.8	А	0/0	0.00	5.0	А	0/0	0.00	5.0	А	0/0
Overall		17.2	B		0.79	18.7	B		0.83	23.1	Ċ		0.89	31.6	C		0.93	39.8	D	-
Weekday Evening:											-									
Greenhill Road EB LT/TH/RT	0.18	28.0	С	1/2	0.18	28.9	С	1/2	0.18	29.0	С	1/2	0.20	28.9	С	1/2	0.21	29.5	С	1/2
Tolend Road WB LT/TH/RT	0.55	32.1	Ċ	2/4	0.58	33.8	Ċ	2/4	0.62	35.8	D	3/4	0.66	37.1	D	3/5	0.72	42.5	D	3/5
NH Route 125 NB LT	0.29	6.5	А	1/1	0.30	6.8	А	1/1	0.33	7.3	А	1/1	0.38	9.7	А	1/1	0.42	11.2	В	1/2
NH Route 125 NB TH	0.88	18.8	В	9/30 <sup>f</sup>	0.89	19.5	В	10/31 <sup>f</sup>	0.94	26.0	C	11/33 <sup>f</sup>	0.98	35.7	D	12/36 <sup>f</sup>	1.03	46.8	D	14/38
NH Route 125 NB RT	0.02	5.1	Ā	0/0	0.02	5.0	Ā	0/0	0.02	5.1	Ā	0/0	0.02	5.1	Ā	0/0	0.02	5.1	Ā	0/0
NH Route 125 SB LT	0.13	11.2	В	0/1	0.13	11.8	В	0/1	0.14	14.6	В	0/1	0.15	16.2	В	0/1	0.16	16.7	В	0/
NH Route 125 SB TH	0.67	12.0	B	9/14	0.67	12.1	B	10/15	0.69	12.6	B	10/15	0.77	16.2	B	12/17	0.80	17.3	B	13/19
NH Route 125 SB RT	0.02	6.5	A	0/0	0.02	6.3	Ā	0/0	0.02	6.5	Ā	0/0	0.02	7.1	Ā	0/0	0.02	7.1	Ā	0/0
Overall		16.7	B		0.80	17.2	B		0.85	20.6	Ċ		0.89	26.5	C		0.94	32.6	C	-
Saturday Midday:																				
Greenhill Road EB LT/TH/RT	0.20	28.0	С	1/3	0.20	28.3	С	1/3	0.20	29.1	С	1/3	0.22	30.2	С	1/3	0.22	30.7	С	1/3
Greenhill Road EB LT/TH/RT Tolend Road WB LT/TH/RT	0.33	29.1	С	1/3	0.33	29.4	С	1/3	0.41	31.1	С	1/3	0.43	32.3	С	1/3	0.51	33.9	С	2/3
NH Route 125 NB LT	0.19	6.4	А	1/1	0.20	6.9	А	1/1	0.22	7.7	А	1/1	0.25	9.2	А	1/1	0.28	10.6	В	1/1
NH Route 125 NB TH	0.55	6.9	А	4/12	0.56	7.1	А	4/12	0.57	7.3	А	4/13	0.60	7.6	А	5/14	0.62	8.0	А	5/1:
NH Route 125 NB RT	0.02	4.2	A	0/0	0.02	4.2	A	0/0	0.02	4.2	A	0/0	0.02	4.1	A	0/0	0.02	4.2	A	0/0
NH Route 125 SB LT	0.05	4.4	A	0/1	0.05	4.4	A	0/1	0.05	4.6	A	0/1	0.06	4.7	A	0/1	0.07	5.0	A	0/2
NH Route 125 SB TH	0.73	11.9	В	11/14	0.74	12.4	В	11/14	0.76	13.1	В	13/16	0.80	14.3	В	14/18	0.82	15.5	В	16/19
NH Route 125 SB RT	0.01	5.4	Ă	0/0	0.01	5.4	Ā	0/0	0.01	5.4	Ă	0/0	0.01	5.3	Ā	0/0	0.01	5.3	Ă	0/
Overall		11.4	B		0.62	11.7	B		0.65	12.3	B		0.68	13.1	B		0.72	14.0	B	-

See notes at end of table.

### Table 8 (Continued) SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

		2019 I	Existing			2020 N	lo-Build			2020 Openir	ig Year Bu	ild		2030 1	No-Build			2030	Build	
Signalized Intersection/ Peak Hour/Movement	V/C <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	$\begin{array}{c} Queue^d \\ 50^{th}  / 95^{th} \end{array}$	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95 <sup>th</sup>	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95 <sup>th</sup>	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95 <sup>th</sup>	V/C	Delay	LOS	Queue 50 <sup>th</sup> /95
H Route 125 at NH Route 9																				
Weekday Morning:																				
NH Route 135 NB LT	0.47	70.4	Е	3/5	0.47	72.4	Е	3/5	0.47	72.7	Е	3/5	0.50	73.9	Е	3/5	0.50	74.0	Е	3/
NH Route 135 NB TH	1.27	>80.0	F	27°/38f	1.40	>80.0	F	32°/41 <sup>f</sup>	1.49	>80.0	F	35°/44 <sup>f</sup>	1.56	>80.0	F	36°/46 <sup>f</sup>	1.66	>80.0	F	39°/4
NH Route 135 NB RT	0.38	51.2	D	4/8	0.36	52.8	D	4/8	0.36	53.0	D	4/8	0.43	55.4	E	5/9	0.44	55.6	Е	5/
NH Route 135 SB LT	0.72	70.2	Е	8/11	0.82	77.9	Е	$10/15^{f}$	0.84	79.2	Е	$11/16^{f}$	0.87	>80.0	F	$11/17^{f}$	0.88	>80.0	F	12/18
NH Route 135 SB TH/RT	0.93	64.8	Е	21/28	0.93	64.1	Е	$23/30^{f}$	0.95	68.3	Е	$24/32^{f}$	1.03	>80.0	F	28°/36f	1.05	>80.0	F	29°/3
NH Route 9 SEB LT	0.46	67.9	Е	3/5	0.61	70.2	Е	5/8	0.63	70.7	Е	6/8	0.63	72.2	Е	6/8	0.65	72.4	Е	6/
NH Route 9 SEB TH	1.08	>80.0	F	30°/40 <sup>f</sup>	1.07	>80.0	F	30°/37 <sup>f</sup>	1.07	>80.0	F	$30^{e}/37^{f}$	1.20	>80.0	F	36°/43 <sup>f</sup>	1.21	>80.0	F	36°/4
NH Route 9 SEB RT	0.24	38.0	D	3/5	0.23	39.7	D	3/5	0.23	39.9	D	3/5	0.28	41.8	D	3/6	0.28	41.9	D	3/
NH Route 9 NWB LT	0.85	78.6	E	11/11	0.85	>80.0	F	11/11	0.85	>80.0	F	11/11	0.20	>80.0	F	12/12	0.20	>80.0	F	12/1
NH Route 9 NWB TH	0.89	28.8	C	6/7	0.31	33.9	Ċ	6/7	0.32	34.8	C	6/7	0.34	35.2	D	7/8	0.35	36.1	D	7/
NH Route 9 NWB RT	0.08	26.0	c	0/1	0.14	31.5	c	1/2	0.32	32.4	c	1/2	0.17	32.5	C	2/2	0.33	33.5	C	2/
Overall	1.02	20.0 > <b>80.0</b>	F		1.05	>80.0	F		1.08	>80.0	F		0.17 <b>1.16</b>	>80.0	F		1.19	> <b>80.0</b>	F	
	1.02	>80.0	r		1.05	>80.0	r		1.08	>80.0	r		1.10	>80.0	r		1.19	>80.0	r	
Weekday Evening:	0.00	52.2	D	7/11	0.00	5 A 7	Б	7/11	0.67		Б	7/11	0.70	(1.1	Б	0/12	0.72	(1.0	Б	0/1
NH Route 135 NB LT	0.66	53.3	D	7/11	0.66	54.7	E	7/11	0.67	55.7	E	7/11	0.72	61.1	E	8/13	0.72	61.9	E	8/1
NH Route 135 NB TH	1.67	>80.0	F	51°/67f	1.78	>80.0	F	54°/73 <sup>f</sup>	1.87	>80.0	F	57°/77 <sup>f</sup>	2.04	>80.0	F	64°/82 <sup>f</sup>	2.15	>80.0	F	67°/8′
NH Route 135 NB RT	0.09	31.0	С	1/3	0.09	32.3	C	1/3	0.09	33.4	C	1/3	0.35	38.9	D	4/8	0.36	40.3	D	4/
NH Route 135 SB LT	0.45	54.7	D	3/6	0.52	55.1	E	4/7	0.54	56.1	Е	4/7	0.56	60.0	Е	4/7	0.58	61.1	Е	5/
NH Route 135 SB TH/RT	0.72	47.2	D	11/15	0.78	49.5	D	$12/18^{f}$	0.84	54.4	D	$13/21^{f}$	0.91	64.8	E	$14/22^{f}$	0.98	>80.0	F	16/25
NH Route 9 SEB LT	0.45	54.6	D	3/6	0.51	55.1	Е	4/7	0.55	56.1	Е	5/8	0.55	59.9	Е	4/7	0.58	60.9	Е	5/
NH Route 9 SEB TH	0.39	40.9	D	5/9	0.37	41.0	D	5/9	0.36	40.9	D	5/9	0.39	42.1	D	6/10	0.38	41.9	D	6/1
NH Route 9 SEB RT	0.07	37.3	D	0/2	0.07	37.5	D	0/2	0.07	37.4	D	0/2	0.09	38.4	D	0/3	0.09	38.2	D	0/
NH Route 9 NWB LT	0.74	54.2	D	9/15	0.74	55.6	Е	9/15	0.75	57.1	Е	9/15	0.80	63.4	E	$10/17^{f}$	0.81	64.7	Е	10/17
NH Route 9 NWB TH	0.81	46.0	D	$16/26^{f}$	0.82	48.5	D	$16/26^{f}$	0.83	50.3	D	$16/26^{f}$	0.85	52.0	D	$18/30^{f}$	0.86	53.9	D	19/31
NH Route 9 NWB RT	0.12	28.8	С	1/3	0.20	31.1	С	2/5	0.22	32.2	С	2/5	0.11	30.1	С	1/3	0.12	31.0	С	1/
Overall	1.11	>80.0	F		1.14	>80.0	F		1.16	>80.0	F		1.24	>80.0	F		1.27	>80.0	F	-
Saturday Midday:		0010	-			0010	-			0000	-			0010	•			0010	-	
NH Route 135 NB LT	0.47	43.3	D	3/6	0.46	43.8	D	3/6	0.46	44.2	D	3/6	0.50	46.5	D	4/7	0.51	47.0	D	4/
NH Route 135 NB TH	0.47	45.1	D	12/28 <sup>f</sup>	0.89	51.2	D	13/29 <sup>f</sup>	0.94	60.4	E	14/32 <sup>f</sup>	1.03	>80.0	F	18°/37 <sup>f</sup>	1.09	>80.0	F	20°/39
NH Route 135 NB RT	0.05	26.0	C	0/2	0.09	26.4	C	0/2	0.04	26.8	C	0/2	0.10	29.4	C	1/3	0.10	29.9	C	2073
NH Route 135 SB LT	0.08			4/6	0.08	43.4	D	4/7	0.08	43.7	D	0/2 4/7	0.10	46.3		5/8			D	5/
		42.9	D												D		0.60	46.7		
NH Route 135 SB TH/RT	0.78	36.4	D	11/17 <sup>f</sup>	0.80	36.4	D	12/17	0.83	38.2	D	13/19 <sup>f</sup>	0.92	49.1	D	15/24 <sup>f</sup>	0.95	53.7	D	16/2
NH Route 9 SEB LT	0.48	43.0	D	3/7	0.53	43.2	D	4/8	0.56	43.6	D	4/8	0.57	46.3	D	5/9	0.59	46.7	D	5/1
NH Route 9 SEB TH	0.65	40.5	D	7/12	0.65	41.4	D	7/12	0.65	41.7	D	7/12	0.67	43.4	D	8/14	0.67	43.8	D	8/1
NH Route 9 SEB RT	0.25	33.9	С	2/4	0.24	34.7	С	2/4	0.24	35.0	D	2/4	0.28	35.9	D	2/5	0.28	36.3	D	2/
NH Route 9 NWB LT	0.55	42.7	D	4/8	0.54	43.2	D	4/8	0.54	43.6	D	4/8	0.58	46.2	D	5/9	0.58	46.8	D	5/
NH Route 9 NWB TH	0.49	35.1	D	5/9	0.53	37.9	D	5/10	0.55	39.2	D	5/10	0.55	39.0	D	6/11	0.57	40.7	D	6/1
NH Route 9 NWB RT	0.07	30.7	С	0/2	0.14	33.6	С	1/3	0.17	34.7	С	1/3	0.17	34.3	С	1/4	0.20	35.7	D	1/
Overall	0.67	38.7	D		0.69	40.3	D		0.72	42.9	D		0.75	51.8	D		0.78	56.8	Е	

<sup>a</sup>Volume-to-capacity ratio. <sup>b</sup>Control (signal) delay per vehicle in seconds. <sup>c</sup>Level-of-Service.

<sup>1</sup>Level-of-Service. <sup>d</sup>Queue length in vehicles. <sup>e</sup>Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles. <sup>f</sup>95<sup>th</sup> percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles. NB = northbound; SB = southbound; EB = eastbound; WB = westbound; SEB = south-eastbound; NWB = north-westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

# Table 9 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

		2019 E	xisting			2020 No	-Build		20	20 Opening	-Year Bu	ild		2030 N	o-Build	
Unsignalized Intersection/Peak Hour/Movement	Demand <sup>a</sup>	Delay <sup>b</sup>	LOS <sup>c</sup>	Queue <sup>d</sup> 95 <sup>th</sup>	Demand	Delay	LOS	Queue 95 <sup>th</sup>	Demand	Delay	LOS	Queue 95 <sup>th</sup>	Demand	Delay	LOS	(
NH Route 125 at Scrunton Pond Road																
Weekday Morning:																
Scrunton Pond Road EB LT/RT	98	>50.0	F	8	98	>50.0	F	8	99	>50.0	F	9	110	>50.0	F	
NH Route 125 NB LT/TH	580	0.1	А	0	598	0.1	А	0	629	0.1	А	0	659	0.1	А	
NH Route 125 SB TH/RT	1,115	0.0	А	0	1,140	0.0	А	0	1,201	0.0	А	0	1,258	0.0	А	
Weekday Evening:																
Scrunton Pond Road EB LT/RT	33	>50.0	F	3	33	>50.0	F	3	35	>50.0	F	4	37	>50.0	F	
NH Route 125 NB LT/TH	1,106	0.1	А	0	1,130	0.1	А	0	1,199	0.1	А	0	1,247	0.1	А	
NH Route 125 SB TH/RT	684	0.0	А	0	703	0.0	А	0	744	0.0	А	0	776	0.0	А	
Saturday Midday:																
Scrunton Pond Road EB LT/RT	71	>50.0	F	5	72	>50.0	F	5	74	>50.0	F	6	79	>50.0	F	
NH Route 125 NB LT/TH	671	0.3	А	0	686	0.3	А	0	722	0.3	А	0	756	0.3	А	
NH Route 125 SB TH/RT	772	0.0	А	0	788	0.0	А	0	825	0.0	А	0	870	0.0	А	
NH Route 125 at North Project Site Driveway																
Weekday Morning:																
North Project Site Driveway WB LT/RT									29	>50.0	F	2				
NH Route 125 NB TH/RT									637	0.0	А	0				
NH Route 125 SB LT/TH									1,229	0.2	А	0				
Weekday Evening:																
North Project Site Driveway WB LT/RT									66	>50.0	F	4				
NH Route 125 NB TH/RT									1,183	0.0	А	0				
NH Route 125 SB LT/TH									689	0.4	А	0				
Saturday Midday:																
North Project Site Driveway WB LT/RT									41	35.4	E	1				
NH Route 125 NB TH/RT									722	0.0	А	0				
NH Route 125 SB LT/TH									799	0.3	А	0				
NH Route 125 at South Project Site Driveway																
Weekday Morning:																
South Project Site Driveway WB LT/RT									43	>50.0	F	3				
NH Route 125 NB TH/RT									647	0.0	А	0				
NH Route 125 SB LT/TH									1,211	0.2	А	0				
Weekday Evening:																
South Project Site Driveway WB LT/RT									78	>50.0	F	6				
NH Route 125 NB TH/RT									1.178	0.0	А	0				
NH Route 125 SB LT/TH									694	0.5	А	0				
Saturday Midday:												-				
South Project Site Driveway WB LT/RT									56	44.9	Е	2				
NH Route 125 NB TH/RT									731	0.0	Ā	0				
NH Route 125 SB LT/TH									795	0.3	A	Ő				

<sup>a</sup>Demand in vehicles per hour. <sup>b</sup>Average control delay per vehicle (in seconds). <sup>c</sup>Level-of-Service.

 $^{d}$ Queue length in vehicles. NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

		2030 H	Build	
Queue 95 <sup>th</sup>	Demand	Delay	LOS	Queue 95 <sup>th</sup>
11	111	>50.0	F	13
0	690	0.1	А	0
0	1,319	0.0	А	0
5	39	>50.0	F	6
0	1,216	0.2	А	0
0	817	0.0	А	0
7	81	>50.0	F	8
0	792	0.3	А	0
0	907	0.0	А	0
	29	>50.0	F	2
	698	0.0	A	0
	1,351	0.0	A	0
	66	>50.0	F	5
	1,200	0.0	A	0
	755	0.4	A	0
	41	45.6	Е	2
	788	0.0	А	0
	878	0.3	Α	0
	43	>50.0	F	4
	708	0.0	А	0
	1,333	0.2	А	0
	78	>50.0	F	6
	1,195	0.0	А	0
	760	0.4	А	0
	56	>50.0	F	3
	801	0.0	А	0
	874	0.3	А	0

# SIGHT DISTANCE EVALUATION

Sight distance measurements were performed at the Project site roadway intersections with NH Route 125 in accordance with American Association of State Highway and Transportation Officials (AASHTO)<sup>9</sup> standards. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD or corner sight distance (CSD) is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 10 presents the measured SSD and ISD at the subject intersections.

<sup>&</sup>lt;sup>9</sup>A Policy on Geometric Design of Highway and Streets, 7<sup>th</sup> Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018.

### Table 10 SIGHT DISTANCE MEASUREMENTS<sup>a</sup>

		Feet	
Intersection/Sight Distance Measurement	Required Minimum (SSD)	ISD <sup>b</sup>	Measured
<b>NH Route 125 at the North Project Site Roadway</b> Stopping Sight Distance:			
NH Route 125 approaching from the north	570		562/600+c
NH Route 125 approaching from the south	570		650+
Intersection Sight Distance:			
Looking to the north from the Project site roadway	570	665	509/600+c
Looking to the south from the Project site roadway	570	575	650+
NH Route 125 at the North Project Site Roadway Stopping Sight Distance:			
NH Route 125 approaching from the north	570		600+
NH Route 125 approaching from the south	570		595
Intersection Sight Distance:			
Looking to the north from the Project site roadway	570	665	600+
Looking to the south from the Project site roadway	570	575	600+

<sup>a</sup>Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 7<sup>th</sup> Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018 and based on 60 mph approach speed along NH Route 125.

<sup>b</sup>Values shown are the intersection sight distance for a vehicle turning left or right exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

<sup>c</sup>With regrading of the embankment along the east side of NH Route 125 north of the Project site roadway.

As can be seen in Table 10, the available lines of sight at the Project site roadway intersections with NH Route 125 were found to exceed or could be made to exceed the recommended minimum requirements (SSD) to function in a safe manner based on a 60 mph approach speed along NH Route 125, which is slightly above the measured 85<sup>th</sup> percentile vehicle travel speed (58-59 mph) and 10 mph above the posted speed limit (50 mph).

An auxiliary turn lane warrants analysis was conducted for the NH Route 125 approaches to the Project site roadways in accordance with the methodology and procedures outlined in *NCHRP Report 457*<sup>10</sup> published by National Cooperative Highway Research Program (NCHRP).

# <u>Left-Turn Lane</u>

Determination of the need for a left-turn lane of adequate storage length is a function of the volume of left-turning vehicles at the intersection under study and the magnitude of opposing or conflicting traffic volumes along the roadway. Based on a review of this criteria under 2020 Opening Year and 2030 Build conditions, provision of a left-turn lane on the NH Route 125 southbound approach to the north and south Project site roadways appears to be warranted. The detailed analysis of the left-turn lane criteria is presented in the Appendix.

#### <u>Right-Turn Lane</u>

Consideration of the need for a right-turn lane is a function of the volume of right-turning vehicles at the intersection and the total volume of traffic on the same approach (advancing volume). Based on a review of this criteria under 2020 Opening Year and 2030 Build conditions, provision of a right-turn lane on the NH Route 125 northbound approach to the north and south Project site roadways appears to be warranted. The detailed analysis of the right-turn lane criteria is presented in the Appendix.

A review of the motor vehicle crash history at the nearby intersection of NH Route 125 at Scrunton Pond Road as documented by the Barrington Police Department in the town-wide safety assessment indicated the presence of safety deficiencies along the NH Route 125 corridor due in part to the high travel speeds along the roadway. As such and based on the results of the auxiliary turn lane warrants analysis, it is recommended that left-turn lanes be provided on the NH Route 125 (nine (9) to 10 feet) combined with properly designed corner radii for the Project site roadways will accommodate vehicles decelerating to enter the Project site without impeding the flow of traffic along NH Route 125. As such, separate right-turn deceleration lanes are not recommended at this time.

<sup>&</sup>lt;sup>10</sup>NCHRP Report 457 – Evaluating Intersection Improvement: An Engineering Study Guide, National Cooperative Highway Research Program; 2001.

# CONCLUSIONS

VAI has completed a detailed assessment of the potential impacts on the transportation infrastructure associated with the proposed construction of a mixed-use development to be located along the east side of NH Route 125 (Calef Highway) and south of Scruton Pond Road in Barrington, New Hampshire. This study was prepared in consultation with the Town of Barrington, NHDOT and the SRPC, and is responsive to the scoping determination issued by NHDOT for the preparation of this study. The following specific areas have been evaluated as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; under existing and future conditions, both with and without the Project.

As a result of this assessment, we have concluded the following with respect to the Project:

- 1. Using trip-generation statistics published by the ITE<sup>11</sup> and with adjustment to account for pass-by trips, the Project is expected to generate approximately 1,732 new vehicle trips on an average weekday and 1,064 new vehicle trips on a Saturday (both two-way volumes over the operational day of the Project), with approximately 179 new vehicle trips expected during the weekday morning peak-hour, 219 new vehicle trips expected during the Saturday midday peak-hour;
- 2. In general, the Project will not have a significant impact (increase) on motorist delays or vehicle queuing over Existing or anticipated future conditions without the Project (No-Build conditions); however, it was noted that one or more movements at the intersection of NH Route 125 at NH Route 9 are currently operating at or over capacity (defined as a LOS of "E" or "F", respectively) independent of the Project;
- 3. Similar to other unsignalized intersections along the NH Route 125 corridor, motorists exiting the Project site are expected to experience delays during the peak traffic volume periods, with residual vehicle queues of up to six (6) vehicles predicted which can be contained within the Project site without impeding access or circulation, or the movement of vehicles, pedestrians and bicyclists along NH Route 125;

<sup>&</sup>lt;sup>11</sup>Ibid 1.

- 4. Lines of sight at the Project site roadway intersections with NH Route 125 were found to exceed or could be made to exceed the required minimum distance for the intersections to function in a safe manner; and
- 5. A review of the criteria for the installation of auxiliary turn lanes at the Project site roadway intersections with NH Route 125 indicates that the addition of both a left-turn lane and a right-turn deceleration lane are justified based on the applicable criteria.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with implementation of the recommendations that follow.

# **RECOMMENDATIONS**

A series of recommendations have been developed that are designed to provide safe and efficient access to the Project site and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits and approvals.

#### **Project Access**

Access to the Project will be provided by way of two (2) new roadways that will intersect the east side of NH Route 125 as follows: the north roadway will be situated opposite the driveway to 246-248 Calef Highway (Casella Sales & Marketing Inc. and 603 Self-Storage); the south roadway will be located approximately 2,175 feet south of Scruton Pond Road. An access easement will also be established to allow for a future connection between the Project site and property to the north of Old Green Hill Road. The following recommendations are offered with respect to the design and operation of the Project site access and internal circulation, many of which are reflected on the Site Plans:

- The Project site roadways and internal circulating roads should be 24-feet in width and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle as defined by the Barrington Fire Department.
- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided.
- Let-turn lanes should be provided on NH Route 125 approaching both the north and south Project site roadways, with the turn lane accommodations at the north Project site roadway to include a left-turn lane in both the north and southbound directions to facilitate access to the driveway serving the driveway to 246-248 Calef Highway. The existing shoulder width along NH Route 125 (nine (9) to 10 feet) combined with properly designed corner radii for the Project site roadways will accommodate vehicles decelerating to enter the Project site without impeding the flow of traffic along NH Route 125. As such, separate right-turn deceleration lanes are not recommended at this time.
- Where perpendicular parking is proposed, the drive aisle behind the parking should be a minimum of 23-feet in order to facilitate parking maneuvers.

- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD).<sup>12</sup>
- ➤ A sidewalk should be provided along at least one side of the Project site roadways and along circulating roads within the Project site.
- Americans with Disabilities Act (ADA) compliant wheelchair ramps should be provided at all pedestrian crossings internal to the Project site.
- The embankment situated along the east side of NH Route 125 and north of the north Project site roadway should be regraded in order to provide the recommended minimum line of sight to and from the north along NH Route 125.
- Signs and landscaping to be installed as a part of the Project within intersection sight triangle areas should be designed and maintained so as not to restrict lines of sight.
- Snow windrows within sight triangle areas shall be promptly removed where such accumulations would impede sight lines.
- Bicycle parking should be provided at appropriate locations within the Project site to serve the municipal, retail and bank uses.

### Off-Site

### NH Route 125/Scruton Pond Road

The intersection of NH Route 125 at Scruton Pond Road has been identified by the Town as a priority location for a RSA in order to identify potential safety-related improvements at the intersection. In order to advance this effort, the Project proponent will facilitate the completion of a RSA in order to identify improvements for this intersection.

#### NH Route 125/NH Route 9

One or more movements at the intersection of NH Route 125 at NH Route 9 were identified to be operating at or over capacity during the weekday and Saturday peak hours independent of the Project, with Project-related impacts defined as a predicted increase in motorist delay that resulted in a corresponding increase in vehicle queuing of up to five (5) vehicles. In an effort to reduce overall motorist delay and vehicle queuing at the intersection, the Project proponent will design and implement an optimal traffic signal timing and phasing plan subject to receipt of all necessary rights, permits and approvals.

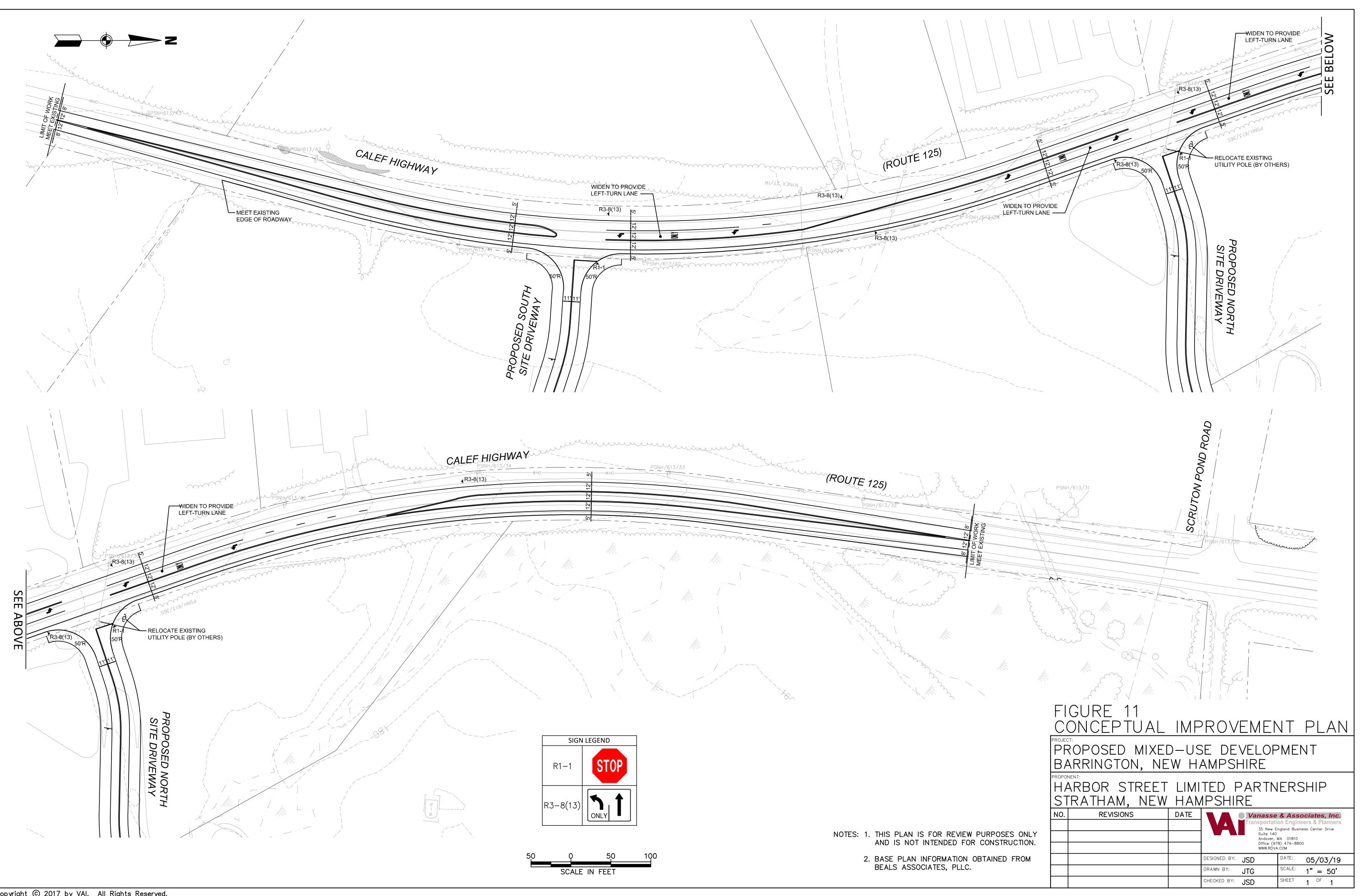
#### **Transportation Demand Management Measures**

Public transportation services are not currently provided in the vicinity of the Project site. In an effort to encourage the use of alternative modes of transportation to single-occupant vehicles, the following Transportation Demand Management (TDM) measures will be implemented as a part of the Project:

<sup>&</sup>lt;sup>12</sup>Ibid 2.

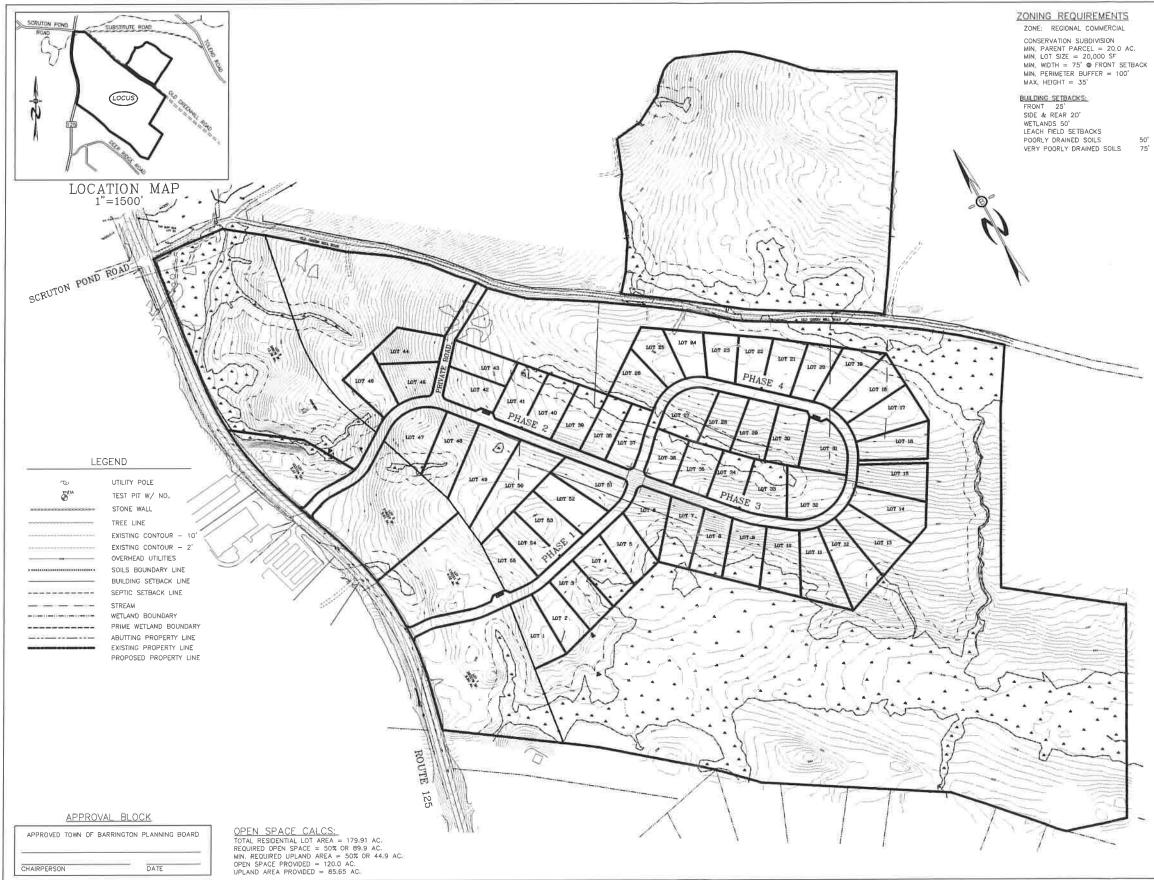
- Information regarding public transportation services, maps, schedules and fare information will be posted in a central location and/or otherwise made available to residents and employees;
- Tenants of the commercial components of the Project will be encouraged to offer specific amenities to discourage off-site trips, including providing a break-room equipped with a microwave and refrigerator; offering direct deposit of paychecks; coordinating with a drycleaning service for on-site pick-up and delivery; allowing telecommuting or flexible work schedules; and other such measures to reduce overall traffic volumes and travel during peak traffic volume periods;
- Pedestrian and bicycle accommodations will be incorporated into the Project including sidewalks and bicycle parking in appropriate locations; and
- To the extent that public transportation services are provided along NH Route 125 in the future, an area should be reserved for a bus stop to be established.

With implementation of the above recommendations, safe and efficient vehicular, pedestrian and bicycle access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.



# APPENDIX

PROJECT SITE PLAN AUTOMATIC TRAFFIC RECORDER COUNT DATA MANUAL TURNING MOVEMENT COUNT DATA SEASONAL ADJUSTMENT DATA VEHICLE TRAVEL SPEED DATA BARRINGTON POLICE DEPARTMENT SAFETY ASSESSMENT BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS TRIP-GENERATION CALCULATIONS JOURNEY TO WORK TRIP DISTRIBUTION CAPACITY ANALYSIS WORKSHEETS TURN LANE WARRANTS ANALYSIS PROJECT SITE PLAN



UIREMENTS
L COMMERCIAL
SUBDIVISION RCEL = 20.0 AC. 20,000 SF 5' • FRONT SETBACI BUFFER = 100' 35'

PREPARED FOR:

NOTES 1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT STRUCTURES IN 5 THE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND UTILITIES OR UTILITIES NOT STRUCTURES LOCATION WORK BY CALLING 1-088-LOC-SAFE

JOSEPH FALZONE

7B EMERY LANE STRATHAM, N.H. 03885

**BEALS · ASSOCIATES** *PLLC* 

70 PORTSMOUTH AVE, STRATHAM, N.H. 03885 PHONE: 603-583-4860, FAX. 603-583-4863

- EXAMANING WORK BY CALING 1-888-00-594E 2. THIS PLAN HAS BEEN PREMARED FOR MUNICIPAL AND STATE APPROALS AND FOR CONSTRUCTION BACED ON DATA OBTAINED FROM THOUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE DENCHER INMEDIATELY OF ANY FIELD DISCORPANCE FROM DATA AS SHOWN ON THE DESIGN FRANS. THIS INCLUDES ANY UNFORESENCE CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS, ANY CONTRADICTION BETWEEN THEMS OF THIS PLAY/PLAN SET, OR BETWEEN THE FLANS. AND ON-STEE CONTINUS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
- ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
- $\mathbf{4}_{e_i}$  all road and drainage work to conform to town standard specifications for construction,
- 5. ALL PROPOSED SIGNS SHALL CONFORM TO THE TOWN ZONING REGULATIONS.
- 6. PROJECT IS BASED ON USGS DATUM NAVD 1988. REFERENCE BENCHMARK:
- 7. THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS,
- 8. SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS. 9. DISTURBANCE IS OVER 100,000 SQ, FT, ALTERATION OF TERRIAN PERMIT RSA 485: A-17 IS REDUIRED.
- ALL FERTILIZER SHALL BE NO-PHOSPHATE, SLOW RELEASE NITROGEN AND SHALL NOT INCREASE ANY FERTILIZER LOADING OF THE PRIME WETLAND.

TOWN NOTES IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFIT IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR SHALL TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS REQUATIONS AT NO EXPENSE TO THE TOWN	BE REQUIRED
REQUIRED EROSIDN CONTROL MEASURES SHALL BE INSTALLED DISTURBANCE OF THE SITE AND SHALL BE MAINTAINED THROU COMPLETION OF ALL CONSTRUCTION ACTIVITIES. IF, DURING C BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEAS REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION STI ACTUAL SITE CONSTONMENTS, THE OWNER SHALL BE REQUIRED TO NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TO	SH THE ONSTRUCTION, IT SURES ARE DUE TO INSTALL THE
ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMP OF BARRINGTON SUBDIVISION REGULTIONS AND THE LATEST E NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD FOR ROAD & BRIDGE CONSTRUCTION,	DITION OF THE
REVISIONS:	DATE:
OPEN SPACE SUBDIVI	SION
PLAN FOR: RESIDENTIAL DEVELOPM RT. 125 / OLD GREEN HILI BARRINGTON. NH	

JAN. 2019

NII-1144

SCALE:

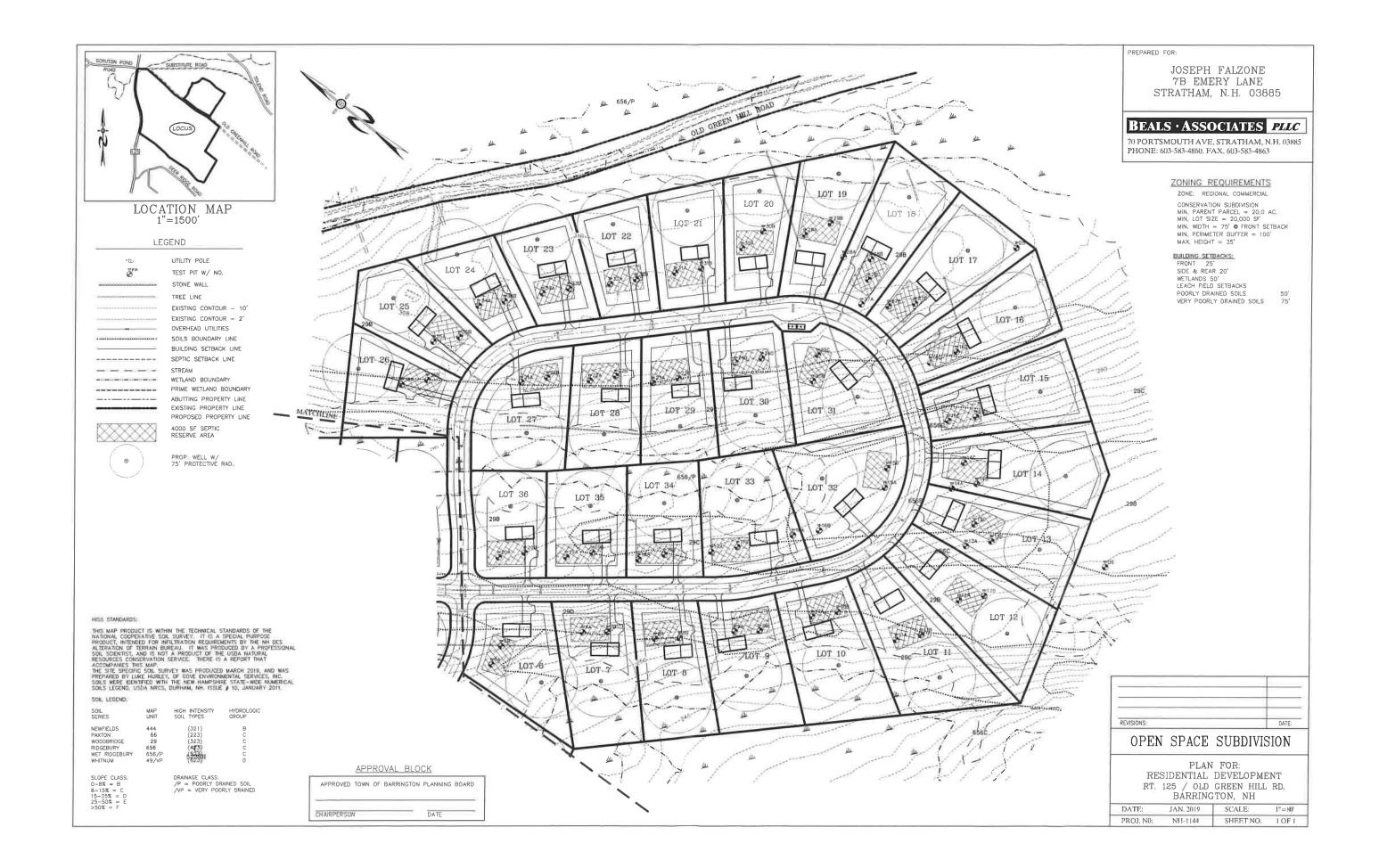
SHEET NO. 1 OF 1

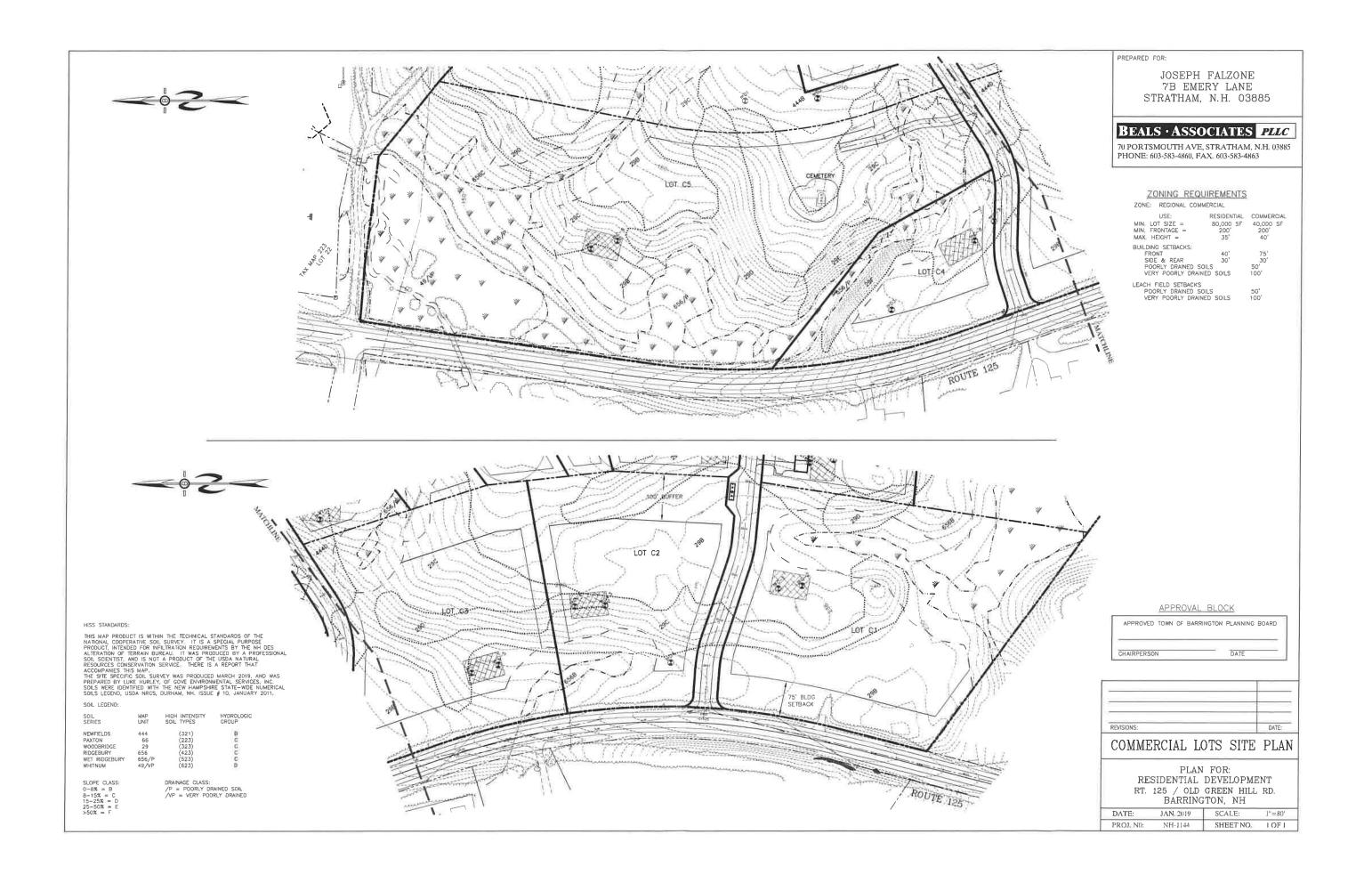
 $1^{*}=150^{\circ}$ 

DATE:

PROJ. NO:







AUTOMATIC TRAFFIC RECORDER COUNT DATA

Location : Route 125 Location : South of Scruton Pond Road City/State: Barrington, NH

Start	3/7/2019		SB	Hour	Totals		1B		Totals		ed Totals
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoo
12:00		7	84			8	85				
12:15		2	87			10	101				
12:30		3	92			18	96				
12:45		4	90	16	353	7	96	43	378	59	73
01:00		1	117			9	110				
01:15		3	85			9 6 1	110				
01:30		5	108			1	123				
01:45		2	117	11	427	6	124	22	467	33	89
02:00		3	118			5 1	100				
02:15		5	119		_	1	128				
02:30		2	119 100			5	124				
02:45		4	127	14	464	3	172	14	524	28	98
03:00		9	113			5 3 3 4	171				
03:15		11	113			4	161				
03:30		10	139			13	201				
03:45		16	130	46	495	9	172	29	705	75	120
03.45		19	138	40	400	16	217	20	100	10	
04:00		35	125			11	201				
04:15		34	125			7	189				
04:30		48	120	136	518	15	212	49	819	185	133
04:45		40	104	130	510	16	227	43	013	100	100
05:00		61	119			24	208				
05:15		93				24	180				
05:30		98	96	004	440	39	180	404	705	405	420
05:45		112	94	364	413	39	180	101	795	465	120
06:00		139	100			41	133				
06:15		164	78			88	157				
06:30		198	87			95	113			10.50	-
06:45		236	83	737	348	97	116	321	519	1058	86
07:00		199	43			86	90				
07:15		257	52			123	70				
07:30		209	38			112	60				
07:45		208	36	873	169	122	69	443	289	1316	45
08:00		163	43			105	46				
08:15		150	54			95	56				
08:30		128	30			116	53				
08:45		121	28	562	155	110	70	426	225	988	38
09:00		110	39			111	51				
09:15		88	24			94	58				
09:30		122	27			85	36 33				
09:45		105	17	425	107	91	33	381	178	806	28
10:00		74	28			90	33				
10:15		94	22			84	37				
10:30		90	19			96	24				
10:45		96	24	354	93	93	25	363	119	717	21
11:00		90	11	334	30	90	36	000	115		- 1
11:00						107	16				
11:15		106	12			107	21				
11:30		88	8	000	26	108	14	414	87	797	12
11:45		96	5	383	36	109	E405	414	0/	6527	868
Total		3921	3578			2606	5105				
Percent		52.3%	47.7%			33.8%	66.2%			42.9%	57.1%

8188VOL1

Location : Route 125 Location : South of Scruton Pond Road City/State: Barrington, NH

Start	3/8/2019	5	SB	Hour	Totals		1B	Hour	Totals	Combin	ed Totals
Time	Fri	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoor
12:00		5	84			9	121			1	
12:15		- 10	100			11	115				
12:30		3	121			21	127				
12:45		3 3	115	21	420	7	120	48	483	69	903
01:00		1	97			8	140				
01:15		4	101			8 7	146				
01:30		5	138			7	163				
01:45		3	120	13	456	7	128	29	577	42	103
02:00		5	127			3	129				
02:15		3	115			2	158				
02:30		4	142			6	171				
02:45		8	121	20	505	6 5	163	16	621	36	112
03:00		12	128			9	204				
03:15		12	126			3	198				
03:30		17	143			12	205				
03:45		18	128	59	525	9	189	33	796	92	132
04:00		20	149	00	020	20	201		100	01	
04:15		27	146			13	228				
04:30		28	123			7	205				
04:45		36	101	111	519	16	205	56	839	167	135
05:00		61	116		015	6	211	00	000	107	100
05:15		79	120			29	206		=		
05:30		98	117			33	188				
05:45		104	95	342	448	39	180	107	785	449	123
05.45		104	87	542	440	59	162	107	705	443	120
06:00		176	87			59	156				
00:15		207	93			98	124				
06:30		189	79	683	346	103	111	319	553	1002	899
06:45		219	56	003	340	79	112	319	555	1002	093
07:00		219	57			109	80				
07:15		214			_	136	78				
07:30		199	43	004	000	139		400	224	4007	540
07:45		232	53	864	209	139	61	463	331	1327	340
08:00		160	37		-	101	71				
08:15		157	36			114	58				
08:30		146	30	500	400	111	54	455	040	4040	070
08:45		125	35	588	138	129	57	455	240	1043	378
09:00		120	33			98	62				
09:15		134	40			91	61				
09:30		90	25			101	46				
09:45		102	20	446	118	97	47	387	216	833	334
10:00		98	28			87	37				
10:15		89	39			106	35				
10:30		96	28			105	26				<i>c</i>
10:45		97	20	380	115	104	42	402	140	782	255
11:00		107	15			108	39				
11:15		86	15			114	28				
11:30		101	17			103	39				
11:45		138	5	432	52	114	11	439	117	871	169
Total		3959	3851			2754	5698			6713	9549
Percent		50.7%	49.3%			32.6%	67.4%			41.3%	58.7%

8188VOL1

Location : Route 125 Location : South of Scruton Pond Road City/State: Barrington, NH

Start Time	3/9/2019										
	Sat	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoo
12:00		10	128			15	114				
12:15		9	137			17	125				
12:30		3	115			20	137				
12:30		10	118	32	498	11	143	63	519	95	10'
		10		52	450		137	05	515	30	10
01:00		7	104			10					
01:15		5	112			6	122				
01:30		1	124			5	125				
01:45		5	118	18	458	6	131	27	515	45	9
02:00		3	104			5	113				
02:15		5	114			9	122				
02:30		10	96			3	104		1		
02:45		2	125	20	439	8	105	25	444	45	8
03:00		ō	119	20	100	3	145				
03.00		8	92			5	142				
03:15						5					
03:30		7	124		450	5 9	110		500	40	0
03:45		11	124	26	459	9	132	22	529	48	- 98
04:00		7	121			5 7	117				
04:15		12	131			7	103				
04:30		18	118			2	152				
04:45		19	119	56	489	2 8	104	22	476	78	90
05:00		21	103			6	112				
05:15		20	94			8	132				
05:30		20	114			14	125				
		21		100	413	23	140	51	509	151	9
05:45		32	102	100	413	23		- 01	509	151	34
06:00		44	62			26	100				
06:15		44	104			30	92				
06:30		51	100			33	121				
06:45		58	92	197	358	34	93	123	406	320	76
07:00		39	70			47	82				
07:15		62	63			41	64				
07:30		72	35			55	62				
07:45		83	67	256	235	76	60	219	268	475	50
08:00		78	43	200	200	77	40				
00.00		70				59	46				
08:15		73	46								
08:30		101	40	0.40	104	79	40	000	400	0.40	
08:45		94	32	346	161	87	54	302	180	648	34
09:00		106	37			86	53				
09:15		115	39			102	66				
09:30		90	30			117	58				
09:45		121	26	432	132	110	47	415	224	847	35
10:00		108	29			91	36				
10:15		96	20			101	36				
10:30		126	22			116	27				
10.30			22	454	05	130	29	438	128	892	22
10:45		124	24	404	95			430	120	092	24
11:00		104	21			144	18				
11:15		129	21			136	28				
11:30		177	16			113	31				
11:45		141	14	551	72	127	18	520	95	1071	16
Total		2488	3809			2227	4293			4715	810
Percent		39.5%	60.5%			34.2%	65.8%			36.8%	63.2
Grand											
Total		10368	11238			7587	15096			17955	2633
IOTAL		48.0%	52.0%			33.4%	66.6%			40.5%	59.5
Percent											

8188VOL1

> Location : Route 125 Location : South of Scruton Pond Road City/State: Barrington, NH

Start	3/4/2019		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	verage
Time	SB	NB	SB	NB	SB	BB	SB	NB	SB	NB	SB	NB	SB	NB	SB	BN
12:00 AM	*	*	*	*	÷	*	16	43	21	48	32	63	*	+	23	
01:00	*	•	*	*	•	•	11	22	13	29	18	27	•	*	14	
02:00	*	•	*	*	4	*	14		20	16	20	25	*	*	18	
03:00	*	+	•	*	*	*	46		59	33	26	22	•	•	44	28
04:00	*	*	*	*	*	*	136	49	111	56	56	22	*	*	101	
05:00	*	*		*	*		364		342	107	100	51		*	269	
00:90	*	*	•	*	*	a	737		683	319	197	123	•	*	539	254
07:00	*	*	*	4	•	*	873		864	463	256	219	*	*	664	n in
08:00	*	*	•	4	٠	*	562		588	455	346	302	*	*	499	n m
00:60	*	*	*	*	•	*	425		446	387	432	415	*	4	434	ĉ
10:00	*	*	*	*		4	354		380	402	454	438	•	*	396	4
11:00	*	*	*	*	•	•	383		432	439	551	520	•	4	455	4
12:00 PM	ł	•	*	*	*	*	353		420	483	498	519	٠	4	424	4
01:00	*	*	•	*	*	*	427		456	577	458	515	*	*	447	2
02:00	*	*	*	*	*		464		505	621	439	444	*	*	469	L)
03:00	*	đ¢.		*	*	*	495		525	796	459	529	*	+	493	9
04:00	•	*	×	*	*	•	518		519	839	489	476		+	509	2
05:00	*	*	¥	*	*	8	413		448	785	413	509	*	*	425	9
06:00	•	+	4	*	•	ł	348		346	553	358	406	*	*	351	4
02:00	*	*	*	*	*	•	169		209	331	235	268	•		204	2
08:00	*	*	*	4	*	a	155		138	240	161	180	*	•	151	2
00:60	*	*	*	•	¥	•	107		118	216	132	224	•		119	N
10:00	*	*	*	•	*	*	93		115	140	95	128	4	*	101	Ē
11:00	•	a	•	•	*	4	36		52	117	72	95	*	*	53	
Lane	0	0	0	0	0	0	7499		7810	8452	6297	6520	0	0	7202	75
Day	0		0		0		1521	0	162(	32	12817		0		14762	
AM Peak	ań.	13	R	ŧ	n	10	02:00	00:70	02:00	07:00	11:00	11:00		æ	02:00	11:00
Vol.	•	8	×	3	x	3	873	443	864	463	551	520	3	3	664	4
PM Peak	3	ų.	80	3 <b>9</b> 0)	1965	341	16:00	16:00	15:00	16:00	12:00	15:00	×	×	16:00	16:00
Vol.	Ŕ	ŝ	x	ŝ.	r	2	518	819	525	839	498	529	a	3	509	2
Comb.	C			c		-	ų	15310	, i	16767	č	17007		c		0017
Total	2		~			2				7070					V.	192

AADT 14,763

ADT 14,763

ADT

Page 1

MANUAL TURNING MOVEMENT COUNT DATA

File Name : 81880001 Site Code : 81880001 Start Date : 3/7/2019 Page No : 1

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	LL	Route 125 From North			Route 9 From East		чű	Route 125 From South		L	Route 9 From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	50	151	10	21	15	13	10	73	39	с,	66	25	511
07:15 AM	24	165	80	48	43	23	7	89	50	15	119	21	612
07:30 AM	34	176	σ	36	30	16	8	91	27	15	109	51	602
07:45 AM	28	166	10	30	19	Ø	15	93	31	12	98	30	540
Total	136	658	37	135	107	60	40	346	147	47	425	127	2265
08:00 AM	24	136	œ	32	34	12	0	76	33	18	63	53	498
08:15 AM	17	113	6	29	25	15	31	84	31	9	49	62	471
08:30 AM	19	103	10	22	20	23	10	80	31	14	58	34	424
08:45 AM	21	92	13	17	23	14	16	62	20	11	48	25	379
Total	81	444	40	100	102	64	99	319	115	49	218	174	1772
Grand Total	217	1102	17	235	209	124	106	665	262	96	643	301	4037
Apprch %	15.5	78.9	5.5	41.4	36.8	21.8	10.3	64.4	25.4	9.2	61.8	28.9	
Total %	5.4	27.3	1.9	5.8	5.2	3.1	2.6	16.5	6.5	2.4	15.9	7.5	
Cars	205	1061	69	228	204	100	103	642	257	94	632	287	3882
% Cars	94.5	96.3	89.6	67	97.6	80.6	97.2	96.5	98.1	97.9	98.3	95.3	96.2
Trucks	12	41	œ	7	2	24	e	23	5	2	1	14	155
% Trucks	5.5	3.7	10.4	e	2.4	19.4	2.8	3.5	1 0	• •	17	2.4	

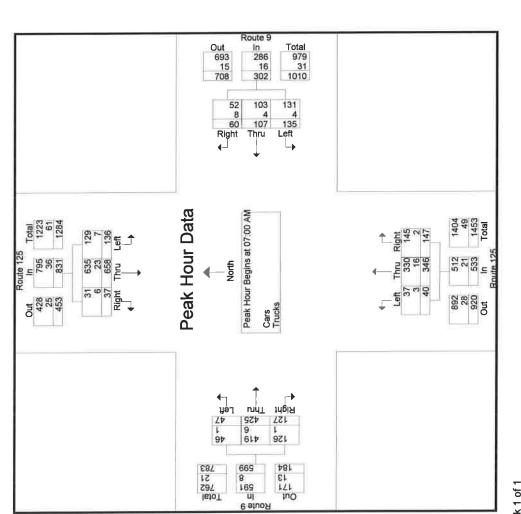
N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

File Name : 81880001 Site Code : 81880001 Start Date : 377/2019 Page No : : 2

		Int. Total			511	612	602	540	2265		.925	2184	96.4	81	3.6
		App. Total			129	155	175	140	599		.856	591	98.7	80	1.3
te 9	West	Right			25	21	51	30	127	21.2	.623	126	99.2	-	0.8
Route 9	From West	Thru			66	119	109	98	425	71	.893	419	98.6	9	4.4
		Left			5	15	15	12	47	7.8	.783	46	97.9	-	2.1
		App. Total			122	146	126	139	533		.913	512	96.1	21	3.9
125	South	Right			39	50	27	31	147	27.6	.735	145	98.6	2	4.1
Route 125	From South	Thru			73	89	91	93	346	64.9	.930	330	95.4	16	4.6
		Left			10	7	8	15	40	7.5	.667	37	92.5	e	7.5
		App. Total			49	114	82	57	302		.662	286	94.7	16	5.3
te 9	East	Right			13	23	16	80	60	19.9	.652	52	86.7	œ	13.3
Rout	From	Thr			15	43	30	19	107	35.4	.622	103	96.3	4	3.7
		Left			21	48	36	30	135	44.7	-703	131	0'.76	4	3.0
		Right App. Total	ak 1 of 1		211	197	219	204	831		.949	795	95.7	36	4.3
125	North	Right	5 AM - Pea	07:00 AM	10	80	6	10	37	4.5	.925	31	83.8	9	16.2
Route 125	From North	Thru	M to 08:45	Begins at C	151	165	176	166	658	79.2	.935	635	96.5	23	3.5
		Left	m 07:00 Al	ersection E	50	24	34	28	136	16.4	.680	129	94.9	7	5.1
		Start Time	Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1	Peak Hour for Entire Intersection Begins at 07:00 AM	07:00 AM	07:15 AM	07:30 AM	07:45 AM	Total Volume	% App. Total	PHF	Cars	% Cars	Trucks	% Trucks

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

Accurate Counts 978-664-2565 File Name : 81880001 Site Code : 81880001 Start Date : 3/7/2019 Page No : 3



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

Peak Hour for Each Approach Begins at:

-	07:00 AM			-	07:15 AM				07:00 AM				07:15 AM			
+0 mins.	50	151	10	211	48	43	23	114		73	39	122	15	119	21	155
+15 mins.	24	165	80	197	36	30	16	82	7	89	50	146	15	109	51	175
+30 mins.	34	176	6	219	30	19	80	57		91	27	126	12	98	30	140
+45 mins.	28	166	10	204	32	34	12	78	15	93	31	139	18	63	53	134
Fotal Volume	136	658	37	831	146	126	59	331	40	346	147	533	60	389	155	604

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

File Name : 81880001 Site Code : 81880001 Start Date : 3/7/2019 Page No : 5

	Int. Total	493	588	579	524	2184	476	449	407	366	1698	3882
	Right	25	21	51	29	126	51	56	30	24	161	287 28.3
Route 9 From West	Thru	96	117	109	67	419	61	47	57	48	213	632 62.4
ш е Ш	Left	4	15	15	12	46	18	9	14	10	48	94 9.3
	Right	38	50	27	30	145	31	31	31	19	112	257 25.6
Route 125 From South	Thru	71	84	85	06	330	75	82	76	79	312	642 64.1
Ϋ́ΥΫ́Υ	Left	10	9	7	14	37	σ	31	10	16	99	103 10.3
	Right	12	21	12	7	52	5	11	16	10	48	100 18.8
Route 9 From East	Thu	15	40	29	19	103	33	25	20	23	101	204 38.3
Ϋ́	Left	21	45	35	30	131	32	28	22	15	97	228 42.9
	Right	7	Ø	7	თ	31	7	Ø	10	13	38	69 5.2
Route 125 From North	Thru	147	158	169	161	635	127	108	103	88	426	1061 79.5
	Left	47	23	33	26	129	21	16	18	21	76	205 15.4
	Start Time	07:00 AM	07:15 AM	07:30 AM	07:45 AM	Total	08:00 AM	08:15 AM	08:30 AM	08:45 AM	Total	Grand Total Apprch %

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

File Name = 81880001 Site Code = 81880001 Start Date = 3/7/2019 Page No = = 9

	- u	Route 125 From North		Ē	Route 9 From East			Route 125 From South		LL.	Route 9 From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	3	4	ო	0	0	-	0	2	-	-	e	0	18
07:15 AM	÷	7	0	n	ç	7	-	£	0	0	р	0	24
07:30 AM	-	7	N	-	۲	4	-	Q	0	0	0	0	23
07:45 AM	2	2 2	-	0	0	-	-	ę	-	0	-	-	16
Total	7	23	Q	ষ	4	Ø	e	16	8	÷	9	*	81
08:00 AM	ы	თ	-	0	-	-	0	~	2	0	2	2	22
08:15 AM	-	5		-	0	4	0	2	0	0	N	g	22
08:30 AM	-	0	0	0	0	7	0	4	0	0	-	4	17
08:45 AM	0	4	0	7	0	4	0	0	-	-	0	-	13
Total	ы О	<u>0</u>	5	ო	*	16	0	2	e	-	2	13	74
Grand Total	12	41	œ	7	ъ	24	3	23	5	2	11	14	155
Apprch %	19.7	67.2	13.1	19.4	13.9	66.7	9.7	74.2	16.1	7.4	40.7	51.9	
I Otal %	1.1	26.5	5.2	4.5	3.2	15.5	1.9	14.8	3.2	1.3	7.1	თ	

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

File Name : 81880001 Site Code : 81880001 Start Date : 3/7/2019 Page No : 13

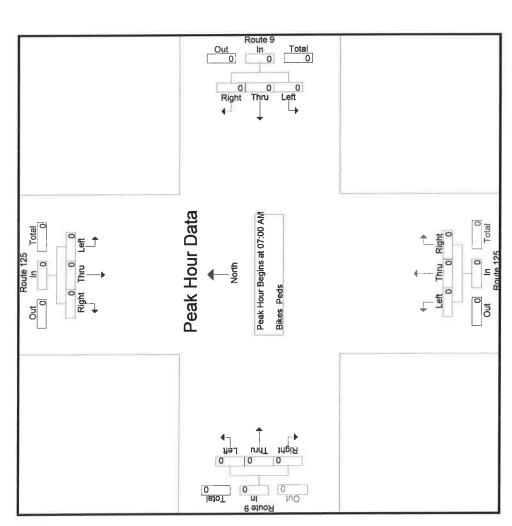
		Int. Total	0	0	0	0	0		0	0	0	0	0	0	
			0	0	0	0	0		0	0	0	0	0	0	0
		Exclu. Total Inclu. Total	0	0	0	0	0		0	0	0	0	0	0	0
	1	Peds Exclu. 7	0	0	0	0	0	-	0	0	0	0	0	0	
					_	_			_	-	_	-		_	-
	e 9 Mest	Right	0	0	0	0	0		0	0	0	0	0	0	0
	From West	Thru	0	0	0	0	0		0	0	0	0	0	0	0
		Left	0	0	0	0	0		0	0	0	0	0	0	0
		Peds	0	0	0	0	0		0	0	0	0	0	0	
Is	25 uth	Right	0	0	0	0	0		0	0	0	0	0	0	0
<b>Bikes Pec</b>	From South	Thru	0	0	0	0	0		0	0	0	0	0	0	0
Groups Printed- Bikes Peds		Left	0	0	0	0	0		0	0	0	0	0	0	0
Groups		Peds	0	0	0	0	0	-	0	0	0	0	0	0	
	9 act	Right	0	0	0	0	0		0	0	0	0	0	0	0
	Route 9 From Fast	Thru	0	0	0	0	0		0	0	0	0	0	0	0
		Left	0	0	0	0	0		0	0	0	0	0	0	0
		Peds	0	0	0	0	0		0	0	0	0	0	0	
	25 http	Right	0	0	0	0	0		0	0	0	0	0	0	0
	From North	Thru		0	0	0	0		0	0	0	0	0	0	0
		Left	0	0	0	0	0		0	0	0	0	0	0	0
		Start Time	07:00 AM	07:15 AM	07:30 AM	07:45 AM	Total		08:00 AM	08:15 AM	08:30 AM	08:45 AM	Total	Grand Total	Apprch % Total %

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

File Name : 81880001 Site Code : 81880001 Start Date : *3/7/2*019 Page No : 14

P. Total         Route 9 From East           P. Total         Left         Thru         Right         App. Total         Left           of 1         0	0 0 0
Route         125           From North         From North           Start Time         Left         Thru         Right         App. Total           Peak Hour Analysis From 07:00 AM to 08:45 AM         Rop. Total         Peak 1 of 1           Peak Hour for Entire         Intersection Begins at 07:00 AM         0 <t< td=""><td>0</td></t<>	0
Route         125           Start Time         Left         Thru         Right           Peak Hour Analysis From 07:00 AM to 08:45 AM - Peaceta         03:45 AM - Peaceta         Peaceta           Peak Hour for Entire         Intersection Begins at 07:00 AM         03:45 AM - Peaceta         Peaceta           07:00 AM         07:00 AM         0	o
Left Left om 07:00 A tersection 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Ð

> N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear



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

Peak Hour for Each Approach Begins at:

	07:00 AM			0	07:00 AM				07:00 AM			0	07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name : 81880001 Site Code : 81880001 Start Date : *31*7/2019 Page No : 15

> N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	Ψ LĹ	Route 125 From North		u	Route 9 From East		- 6	Route 125 From South		L.	Route 9 From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thu	Right	Int. Total
04:00 PM	24	92	22	30	71	35	32	167	21	თ	35	32	570
04:15 PM	19	105	13	35	80	29	30	139	31	20	30	21	552
04:30 PM	4	98	16	42	80	22	25	152	23	18	28	20	538
04:45 PM	15	66	20	54	92	28	36	182	20	19	31	13	609
Total	72	394	71	161	323	114	123	640	95	66	124	86	2269
05:00 PM	12	86	19	41	89	28	57	175	17	12	30	20	586
05:15 PM	20	80	18	54	92	18	28	170	20	12	35	24	571
05:30 PM	21	72	σ	37	65	22	33	139	20	10	41	16	485
05:45 PM	13	68	10	28	67	18	27	129	22	7	38	16	443
Total	66	306	56	160	313	86	145	613	79	41	144	76	2085
Grand Total	138	200	127	321	636	200	268	1253	174	107	268	162	4354
Apprch %	14.3	72.5	13.2	27.7	55	17.3	15.8	73.9	10.3	19.9	49.9	30.2	
Total %	3.2	16.1	2.9	7.4	14.6	4.6	6.2	28.8	4	2.5	6.2	3.7	
Cars	136	686	127	320	633	199	267	1243	174	106	268	158	4317
% Cars	98.6	98	100	99.7	<b>99.5</b>	99.5	9.66	99.2	100	99.1	100	97.5	99.2
Trucks	5	14	0		ო	1	5	10	0	-	0	4	37
% Trucks	1.4	2	0	0.3	0.5	50	N O	0	c	0	c	L (	0

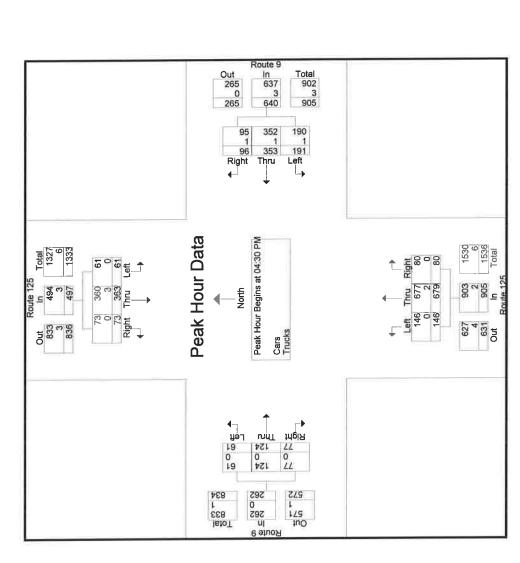
File Name = 81880001 Site Code = 81880001 Start Date = 3/7/2019 Page No = 11

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

File Name : 81880001 Site Code : 81880001 Start Date : 3/7/2019 Page No : 2

		Int. Total			538	609	586	571	2304		.946	2296	99.7	8	0.3
		App. Total			99	63	62	71	262		.923	262	100	0	0
te 9	West	Right			20	13	20	24	11	29.4	.802	11	100	0	0
Route 9	From West	Thru			28	31	30	35	124	47.3	.886	124	100	0	0
		Left			18	19	12	12	61	23.3	.803	61	100	0	0
		App. Total			200	238	249	218	905		606.	903	9.66	2	0.2
125	South	Right			23	20	17	20	80	8.8	.870	80	100	0	0
Route 125	From South	Thru			152	182	175	170	679	75	.933	677	99.7	2	0.3
		Left			25	36	57	28	146	16.1	.640	146	100	0	0
		App. Total			144	174	158	164	640		.920	637	<b>39.5</b>	e	0.5
e 9	East	Right			22	28	28	18	96	15	.857	95	0.06	-	1.0
Route 9	From East	Thru			80	92	68	92	353	55.2	.959	352	99.7	-	0.3
		Left			42	54	41	54	191	29.8	.884	190	99.5	-	0.5
		Right App. Total	lk 1 of 1		128	134	117	118	497		.927	494	99.4	e	0.6
125	Vorth	Right	5 PM - Pea	04:30 PM	16	20	19	18	73	14.7	.913	73	100	0	0
Route 125	From North	Thru	M to 05:45	Begins at C	98	66	86	80	363	73	.917	360	99.2	с	0.8
		Left	m 04:00 P	ersection I	14	15	12	20	61	12.3	.763	61	100	0	0
		Start Time	Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	Peak Hour for Entire Intersection Begins at 04:30 PM	04:30 PM	04:45 PM	05:00 PM	05:15 PM	Total Volume	% App. Total	PHF	Cars	% Cars	Trucks	% Trucks

> N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear



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

Peak Hour for Each Approach Begins at:

	76	71	99	63	276
	32	21	20	13	86
	35	30	28	31	124
04:00 PM	6	20	18	19	66
		238			
	23	20	17	20	80
	152	182	175	170	679
04:30 PM	25	36	57	28	146
	144	174	158	164	640
	22	28	28	18	96
	80	92	68	92	353
04:30 PM	42	54	41	54	191
0	138	137	128	134	537
	22	13	16	20	71
	92	105	98	66	394
04:00 PM	24	19	14	15	72
5	+0 mins.	+15 mins.	+30 mins.	+45 mins.	Total Volume

File Name:81880001 Site Code:81880001 Start Date:3/7/2019 Page No :3

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	Int. Total	557	543	533	607	2240	585	571	480	441	2077	4317		
	Right	28	21	20	13	82	20	24	16	16	76	158	29.7	
Route 9 From West	Thru	35	30	28	31	124	30	35	41	38	144	268	50.4	
жĘ	Left	0	20	18	19	99	12	12	0	7	40	106	19.9	
	Right	21	31	23	20	95	17	20	20	22	62	174	10.3	
Route 125 From South	Thru	166	134	150	182	632	175	170	138	128	611	1243	73.8	
8 5 2	Left	32	29	25	36	122	57	28	33	27	145	267	15.9	
	Right	35	29	21	28	113	28	18	22	18	86	199	17.3	
Route 9 From East	Thru	69	80	80	91	320	89	92	65	67	313	633	54.9	
<u>к</u> <u>г</u>	Left	30	35	41	54	160	41	54	37	28	160	320	27.8	
	Right	52	13	16	20	71	19	18	6	10	56	127	13.4	
Route 125 From North	Thru	87	102	67	98	384	85	80	20	67	302	686	72.3	
R Fr	Left	23	19	14	15	71	12	20	20	13	65	136	14.3	
	Start Time	04:00 PM	04:15 PM	04:30 PM	04:45 PM	Total	05:00 PM	05:15 PM	05:30 PM	05:45 PM	Total	Grand Total	Apprch %	

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	— LL	Route 125 From North		Ē	Route 9 From East		R R	Route 125 From South		C	From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	-	5	0	0	2	0	0	-	0	0	0	4	13
04:15 PM	0	e	0	0	0	0	~	Q	0	0	0	0	6
04:30 PM	0	~	0	٢	0	~	0	2	0	0	0	0	5
04:45 PM	0	~	0	0	۲	0	0	0	0	0	0	0	2
Total	5	10	0	~	ю	~	-	8	0	0	0	4	29
05:00 PM	0	-	0	0	0	0	0	0	0	0	0	0	·
05:15 PM	ο	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	-	2	0	0	0	0	0	-	0	7	0	0	5
05:45 PM	0	-	0	0	0	0	0	-	0	0	0	0	2
Total		4	0	0	0	0	0	5	0	n <del>ga</del> n	0	0	œ
Grand Total	0	4	0	-	ç	F	~	10	0	-	0	4	37
Apprch %	12.5	87.5	0	20	60	20	9.1	6.06	0	20	0	80	
Total %	5.4	37.8	0	2.7	8.1	2.7	2.7	27	0	2.7	0	10.8	

Accurate Counts 978-664-2565
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N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

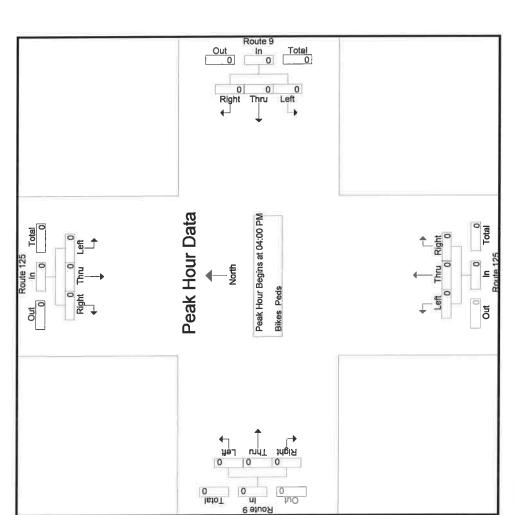
		From North	i 125 North			Route 9 From East	9 ast			From South	125 puth			From West	est Jest				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total Inclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	O	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0 0	0 0	0 0	0	0 0	0 0	0 0	0	0 0	0	0	0	0	0	0	0	0	0	0
Total %	5	5	Þ		5	D	5		Ð	Ð	0		0	0	0		-	c	

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

		Routh	Route 125			Rout	ıte 9			Rout	Route 125			Rou	Route 9		
		From	From North			From	East			From	From South			From	From West		
Start Time	Left	Thru		Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	om 04:00 F	<sup>o</sup> M to 05:4	15 PM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM	Itersection	Begins at	04:00 PM														
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

Accurate Counts 978-664-2565 File Name : 81880001 Site Code : 81880001 Start Date : 3/7/2019 Page No : 15



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

Peak Hour for Each Approach Begins at:

J	04:00 PM			ō	04:00 PM				04:00 PM			5	04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	From North			Route 9 From East		αŗ	Route 125 From South		- 0	From West		
Left		Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
12	2 69	20	24	42	14	27	96	16	19	52	14	405
10	0 103	15	17	33	18	27	06	20	20	37	28	418
27	7 130	34	23	38	17	20	86	28	20	53	36	512
16	5 103	20	28	39	26	24	88	23	21	54	27	469
65	5 405	89	92	152	75	98	360	87	80	196	105	1804
20	0 109	18	27	34	16	14	83	13	19	35	32	420
16	5 93	22	32	38	18	26	93	16	24	44	23	445
10	0 88	18	25	39	26	22	87	22	19	32	26	414
19	9 92	23	15	36	17	15	67	14	19	43	33	423
Total 65	5 382	81	66	147	77	77	360	65	81	154	114	1702
01:00 PM 16	6 72	15	22	35	18	19	103	27	18	40	22	407
01:15 PM 15	5 79	15	27	41	23	24	88	16	23	45	26	422
01:30 PM 12	2 82	17	20	44	19	18	75	17	16	29	23	372
01:45 PM 16	90	15	25	28	20	24	101	80	17	24	27	395
Total 59	9 323	62	94	148	80	85	367	68	74	138	98	1596
Grand Total 189		232	285	447	232	260	1087	220	235	488	317	5102
•		15.2	29.6	46.4	24.1	16.6	69.4	14	22.6	46.9	30.5	
		4.5	5.6	8.8	4.5	5.1	21.3	4.3	4.6	9.6	6.2	
		232	285	446	232	260	1078	220	235	488	317	5083
% Cars 100	0 99.2	100	100	99.8	100	100	99.2	100	100	100	100	9-66
Trucks	6 0	0	0	-	0	0	თ	0	0	0	0	19
	8 U	c	c	0.0	c	c	0	c	c	c	c	

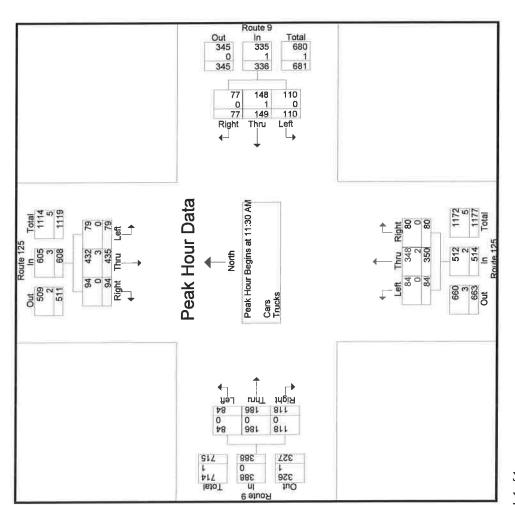
N/S Street : Route 125 E/N Street: Route 9 City/State : Barrington, NH Weather : Clear

		From	From North			From	ite 9 i East			From South	czr South			Route 9 From West	te 9 West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1	om 11:00 A	M to 01:4	5 PM - Pe	ak 1 of 1										110	•		
Peak Hour for Entire Intersection Begins at 11:30 AM	Intersection	Begins at	11:30 AM														
11:30 AM	27	130	34	191	23	38	17	78	20	86	28	134	20	53	36	109	512
11:45 AM	16	103	20	139	28	39	26	93	24	88	23	135	21	25	27	102	469
12:00 PM	20	109	18	147	27	34	16	77	14	83	13	110	19	35	32	86	420
12:15 PM	16	93	22	131	32	38	18	88	26	93	16	135	24	44	23	91	445
Total Volume	79	435	94	608	110	149	11	336	84	350	80	514	84	186	118	388	1846
% App. Total	13	71.5	15.5		32.7	44.3	22.9		16.3	68.1	15.6		21.6	47.9	30.4		
PHF	.731	.837	.691	.796	.859	.955	.740	:903	.808	.941	.714	.952	.875	.861	.819	.890	.901
Cars	79	432	94	605	110	148	11	335	84	348	80	512	84	186	118	388	1840
% Cars	100	99.3	100	99.5	100	99.3	100	99.7	100	99.4	100	99.6	100	100	100	100	99.7
Trucks	0	Э	0	n	0	-	0	-	0	2	0	2	0	0	0	0	9
% Trucks	0	0.7	0	0.5	0	0.7	0	0.3	0	0.6	0	0.4	C	C	C	C	0.3

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

Accurate Counts 978-664-2565

File Name:818800S1 Site Code:81880001 Start Date:3/9/2019 Page No :3



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

39         26         93         27         96         16         139         20         53         36         109           34         16         77         27         90         20         137         21         54         27         102           38         18         88         20         86         28         134         19         35         27         102           39         26         90         20         86         28         134         19         35         32         86           30         26         90         24         88         23         135         24         44         23         91           43.1         24.7         16         16         16         16         16         30.4         30.4           43.1         24.7         16         16         16         30.4         30.4         30.4           43.1         24.7         16         16         36         30.4         30.4         30.4           562         .821         .938         .777         .980         .875         .861         .819         .890	11:45 AM
77         27         90         20         137         21         54         27           88         20         86         28         134         19         35         32           90         24         88         23         135         24         44         23           348         98         360         87         545         84         186         118           18         66.1         16         16         21.6         47.9         30.4           .935         .907         .938         .777         .980         .875         .861         .819	<b>34 191</b> 28
18         20         86         28         134         19         35         32           26         90         24         88         23         135         24         44         23           86         348         98         360         87         545         84         186         118           24.7         18         66.1         16         21.6         47.9         30.4           827         .935         .938         .777         .980         .875         .861         .819	
26         90         24         88         23         135 <b>24</b> 44         23           86         348         98         360         87         545         84         186         118           24.7         18         66.1         16         21.6         47.9         30.4           28.7         .935         .907         .938         .777         .980         .875         .861         .819	18 147 32
86         348         98         360         87         545         84         186         118           24.7         18         66.1         16         21.6         47.9         30.4           .827         .935         .907         .938         .777         .980         .875         .861         .819	22 131 25
24.7         18         66.1         16         21.6         47.9         30.4           .827         .935         .907         .938         .777         .980         .875         .861         .819	94 608 112
.827 .935 .907 .938 .777 .980 .875 .861 .819	15.5 32.2
	.691 .796 .875

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	άĘ	Route 125 From North		- <u>с</u>	Route 9 From East		αĘ	Route 125 From South			Route 9 From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	ю	0	0	0	0	0	F	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	-	0	0	0	0	0	0	0	
Total	0	сı	0	0	-	0	0	÷	0	0	0	0	
12:00 PM	0	5	0	0	0	0	0	-	0	0	o	0	
12:15 PM	0	-	0	0	0	0	0	t	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	-	0	0	0	0	
Total	0	e	0	O	0	0	0	e	0	0	0	0	
01:00 PM	0	0	0	0	0	0	0	7	0	0	0	0	
01:15 PM	0	0	0	0	0	0	0	-	0	0	0	0	
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	
01:45 PM	0	4	0	0	0	0	0	2	0	0	0	0	
Total	0	₹	0	0	0	0	0	ъ	0	0	0	0	
Grand Total	0	6	0	0	-	0	0	ŋ	0	0	٥	0	
Apprch %	0	100	0	0	100	0	0	100	0	0	0	0	
Total %	0	47.4	0	0	5.3	C	C	47.4	C	C	c	c	

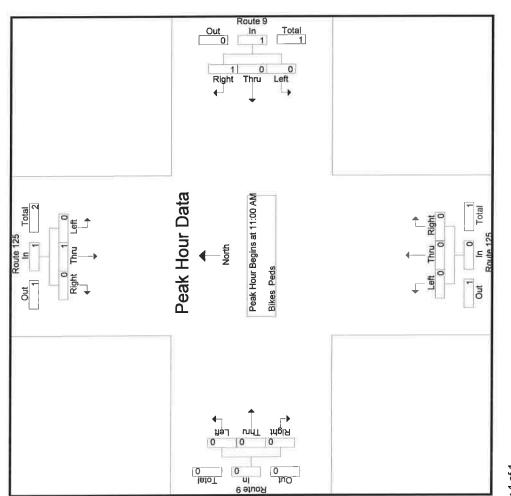
N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

		Route 125 From North	125 Jorth			Route 9 From East	e9 ⊡ast			From South	125 South			Route 9 From West	9 fest				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	-	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	7	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	÷	0	0	0	0	÷	0	0	0	0	0	0	0	0	0	0	2	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	-	0	0	0	0	-	0	0	0	0	0	0	0	0	0	0	2	
Apprch %	0	100	0		0	0	100		0	0	0		0	0	0				
Total %	0	50	0		0	C	50		c	-	c		c	c	c		c	001	

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

	Int. Total			0	2	0	0	2		.250
	App. Total			0	0	0	0	0		000
e 9 Vest	Right	•		0	0	0	0	0	0	000
Route 9 From West	Thru			0	0	0	0	0	0	000
	Left			0	0	0	0	0	0	000
	App. Total			0	0	0	0	0		000.
125 outh	Right			0	0	0	0	0	0	000
From South	Thru			0	0	0	0	0	0	000
	Left			0	0	0	0	0	0	000.
	App. Total	i los		0	ſ	0	0	-		.250
ute 9 n East	Right			0	-	0	0	-	100	.250
From E	Thru			0	0	0	0	0	0	000
	Left			0	0	0	0	0	0	000
	Thru Right App. Total	k 1 of 1		0	-	0	0	-		.250
125 orth	Right	PM - Peal	I:00 AM	0	0	0	0	0	0	000.
From North	Thru	A to 01:45	egins at 1.	0	-	0	0	-	100	.250
	Left	n 11:00 AN	rsection B	0	0	0	0	0	0	000.
	Start Time	Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1	Peak Hour for Entire Intersection Begins at 11:00 AM	11:00 AM	11:15 AM	11:30 AM	11:45 AM	Total Volume	% App. Total	PHF

File Name : 818800S1 Site Code : 81880001 Start Date : 3/9/2019 Page No : 15



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at: 11:00 AM

	11:00 AM			-	11:00 AM				11:00 AM			L	11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	Ļ	0	-	0	0	Ļ	-	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	-	0	-	0	0	-	-	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	100		0	0	0		0	0	0	
PHF	000	.250	000	.250	000	000.	.250	.250	000	000	000	000	000	000	000	000

# Accurate Counts 978-664-2565

N/S Street : Route 125 E/W Street: Route 9 City/State : Barrington, NH Weather : Clear

> N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

Diaba	Old Green Hill Rd From East		From South		Scruton Pond Rd From West		
	Thru Right	Left	Thru	Right	Left Thru	Right	Int. Total
2	0	0	92	0	8 0	œ	313
0	0	0	117	0	13 0	6	363
0	0	0	98	0	0 6	2J	329
0	0	0 2	124	0	14 0	7	341
0	0	4	431	0	44 0	29	1346
ο	0	1	92	0	10 0	4	270
0	0	1	67	0	4 0	Ω	263
0	0	0	115	0	12 0	N	263
0	0	0	96	0	7 0	N	223
0	a	ю 0	400	0	33 0	13	1019
0	0	0	831	0	77 0	42	2365
0	0	0.8	99.2	0	64.7 0	35.3	
0	0	0 0.3	35.1	0	3.3 0	1.8	
0	0	0 7	776	0	0 27	42	2247
0	0	0 100	93.4	0	100 0	100	95
0	0	0	55	0	0	0	118
0	0	0	6.6	0	0	0	5

N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

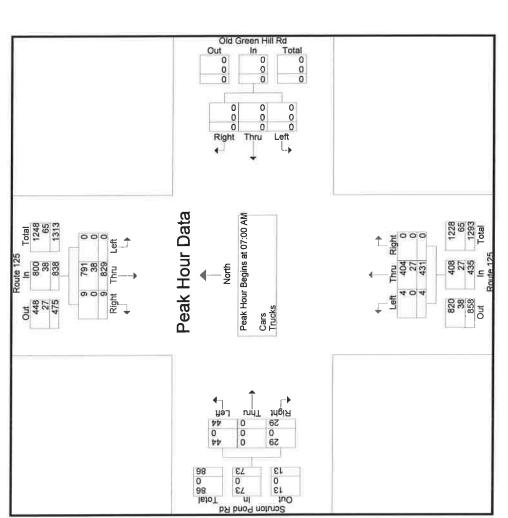
		Rout	Route 125			Old Gree	Old Green Hill Rd			Route 125	: 125			Scruton Pond Rd	<sup>2</sup> ond Rd		
		From	From North			From	From East			From South	South			From West	West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1	om 07:00 /	AM to 08:4	15 AM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM	Itersection	Begins at	07:00 AM														
07:00 AM	0	203	2	205	0	0	0	0	0	92	0	92	ø	0	ø	16	313
07:15 AM	0	221	7	223	0	0	0	0	-	117	0	118	13	0	σ	22	36
07:30 AM	0	211	ŝ	216	0	0	0	0	-	98	0	66	6	0	ο Ω	1 4	329
07:45 AM	0	194	0	194	0	0	0	0	2	124	0	126	14	0	7	21	341
Total Volume	0	829	6	838	0	0	0	0	4	431	0	435	44	0	29	73	1346
% App. Total	0	98.9	1.1		0	0	0		0.9	99.1	0		60.3	0	39.7		
PHF	000	.938	.450	.939	000	000	000	000	.500	.869	000.	.863	.786	000	.806	.830	.927
Cars	0	791	6	800	0	0	0	0	4	404	0	408	44	0	29	73	1281
% Cars	0	95.4	100	95.5	0	0	0	0	100	93.7	0	93.8	100	0	100	100	95.2
Trucks	0	38	0	38	0	0	0	0	0	27	0	27	0	0	0	0	65
% Trucks	0	4.6	0	4.5	0	0	0	0	0	6.3	0	6.2	0	0	0	0	4.8

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

ute 125 ruton Pond Road

Accurate Counts 978-664-2565





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

Peak Hour for Each Approach Begins at:

		9	07:00 AM			0	07:15 AM				07:00 AM			
2 205 0	205	0		0	0	0	-	117	0	118	8	0	8	16
		0		0	0	0	-	98	0	66	13	0	σ	22
<b>5</b> 216 0		0		0	0	0	2	124	0	126	6	0	2	14
0 194 0		0		0	0	0	-	92	0	93	14	0	7	21
9 838 0	838	0		0	0	0	5	431	0	436	44	0	29	73

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

From North	-	Old Green Hill Rd From East		•	Route 125 From South	:	Scruto Fro	Scruton Pond Rd From West		
Right	Left	Thru	Right	Left	Thru	Right	Left	Thr	Right	Int. Total
7	0	0	0	0	89	0	ω	0	Ø	298
2	0	0	0	-	108	0	13	0	6	345
5	0	0	0	<del>.</del>	89	0	6	0	5	311
0	0	0	0	2	118	0	14	0	7	327
თ	0	0	0	4	404	0	44	0	5	1281
4	0	0	0	-	89	0	10	0	4	255
٣	0	0	0	F	92	0	4	0	5 L	254
7	0	0	0	0	104	0	12	0	7	248
7	0	0	0	٣	87	0	7	0	2	209
19	0	0	0	e	372	0	33	0	13	996
28	0	0	0	7	776	0	11	0	42	2247
2.1		0	0	0.9	99.1	0	64.7	0	35.3	
1.2	0		(	0				I		

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

		Route 125 From North		9 PO PO	Old Green Hill Rd From East		κŗ	Route 125 From South		Scrut	Scruton Pond Rd From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	12	0	0	0	0	0	e	0	0	0	0	15
07:15 AM	0	6	0	0	0	0	0	თ	0	0	0	0	18
07:30 AM	0	6	0	0	0	0	0	6	0	0	0	0	18
07:45 AM	0	8	0	0	0	0	0	Q	0	0	0	0	14
Total	0	38	0	0	0	0	0	27	0	0	0	0	65
		!		1					1				
08:00 AM	0	12	0	0	0	0	0	ო	0	0	0	0	15
08:15 AM	0	4	0	0	0	0	0	5	0	0	0	0	6
08:30 AM	0	4	0	0	0	0	0	11	0	0	0	0	15
08:45 AM	0	S	0	0	0	0	0	6	0	0	0	0	14
Total	0	25	0	0	0	0	0	58	0	0	0	0	23
Grand Total	0	63	0	0	0	0	0	55	0	o	0	0	118
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	53.4	0	0	0	0	С	46 6	C	C	c	c	

File Name : 81880002 Site Code : 81880002 Start Date : 3/7/2019 Page No : 13

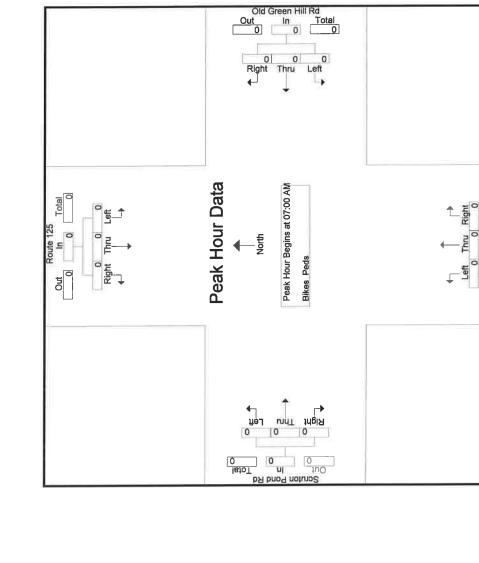
 Total %

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

From North Start TimeFrom North Term NorthFrom East Rant TimeFrom South Rant TimeFrom South Rant TimeFrom North Rant TimeRant TimeFrom North Rant MorthRant TimeRant Morth Rant MorthRant Morth			Rou	Route 125			Old Gree	Old Green Hill Rd			Route 125	: 125			Scruton Pond Rd	Pond Rd		
App. Total         Left         Thru         Right         App. Total         Left         Thru         Right         App. Total           ak 1 of 1			Fron	n North			From	East			From	South			From	West		
ak 1 of 1 	Start Time			Right	App. Total	Left	Thru	Right	App. Total	Left	Thru		App. Total	Left	Thru	Right	App. Total	Int. Total
	ak Hour Analysis Fi	rom 07:00	AM to 08:	45 AM - P€	sak 1 of 1													
0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00         0       0       0       0       0       0       00       00         0       0       0       0       0       0       00       00         0       0       0       0       0       0       00       00         0       0       0       0       0       0       00       00         <	ak Hour for Entire li	ntersection	i Begins at	t 07:00 AM	_													
0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0       00         0       0       0       0       0	07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0       0       0       00         0       0       0       00         0       0       0       00         0       0       0       00         0       0       0       00         0       0       0       00         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0       0       000         0       0       000         0       0       00         0       0       0	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0       0	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
0 0 0 00 000 000 000 000 000 000 000 0	Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000 000	% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
	PHF	000	000		000	000	000	000	000	000	000	000	000	000	000	000	000	00.

File Name : 81880002 Site Code : 81880002 Start Date : 3///2019 Page No : 15



N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

Accurate Counts 978-664-2565

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

0 Total

0

5

Out

Peak Hour for Each Approach Begins at:

-	07:00 AM			01	07:00 AM			5	07:00 AM			0	7:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

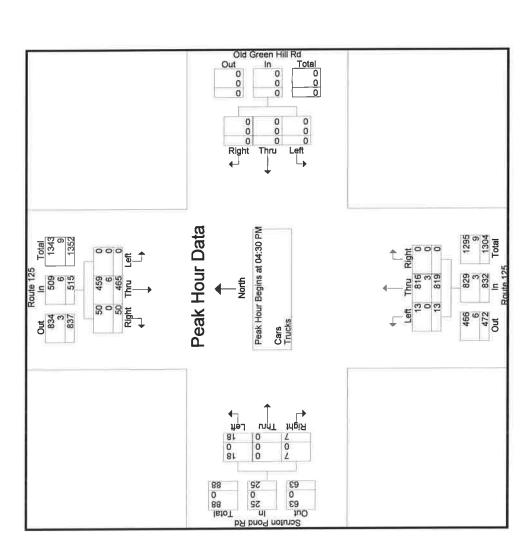
	From North		O PIO	Old Green Hill Rd From East		αĘ	Route 125 From South		Scrut	Scruton Pond Rd From West		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
0	144	10	0	0	0	с,	211	0	÷	0	4	375
0	119	7	0	0	0	N	181	0	~	0	2	312
0	120	18	0	0	0	4	180	0	4	0	-	327
0	122	12	0	0	0	ო	216	0	-	0	2	356
0	505	47	0	0	0	14	788	0	7	o	σ	1370
0	107	10	0	0	0	5	225	0	6	0	2	355
0	116	10	0	0	0	4	198	0	4	0	2	334
0	88	ω	0	0	0	9	170	0	ю	0	9	281
0	88	σ	0	0	0	4	166	0	ы	0	ъ С	275
0	399	37	0	0	0	16	759	0	19	0	15	1245
0	904	84	0	0	0	30	1547	0	26	0	24	2615
0	91.5	8.5	0	0	0	1.9	98.1	0	52	0	48	
0	34.6	3.2	0	0	0	1.1	59.2	0	-	0	0.9	
0	888	84	0	0	0	30	1535	0	26	0	24	2587
0	98.2	100	0	0	0	100	99.2	0	100	0	100	98.9
0	16	0	0	0	0	0	12	0	0	0	0	28
0	1.8	0	0	0	0	0	0.8	C	C	C	0	1.1

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

		Route	Route 125			Old Gree	Old Green Hill Rd			Route 125	125			Scruton Pond Rd	Pond Rd		
		From	From North			From	ı East			From South	South			From West	West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	om 04:00 F	<sup>o</sup> M to 05:4	5 PM - Pe	ak 1 of 1							5						
Peak Hour for Entire Intersection Begins at 04:30 PM	Itersection	Begins at	04:30 PM														
04:30 PM	0	120	18	138	0	0	0	0	4	180	0	184	4	0	-	5	327
04:45 PM	0	122	12	134	0	0	0	0	° rî	216	0	219	<del></del>	0	2	e	356
05:00 PM	0	107	10	117	0	0	0	0	2	225	0	227	6	0	0	1	355
05:15 PM	0	116	10	126	0	0	0	0	4	198	0	202	4	0	2	9	334
Total Volume	0	465	50	515	0	0	0	0	13	819	0	832	18	0	7	25	1372
% App. Total	0	90.3	9.7		0	0	0		1.6	98.4	0		72	0	28		
ЪНF	000	.953	.694	.933	000	000	000	000	.813	.910	000	.916	.500	000	.875	.568	.963
Cars	0	459	50	509	0	0	0	0	13	816	0	829	18	0	7	25	1363
% Cars	0	98.7	100	98.8	0	0	0	0	100	93.6	0	9.66	100	0	100	100	99.3
Trucks	0	9	0	9	0	0	0	0	0	e	0	e	0	0	0	0	6
% Trucks	0	1.3	0	1.2	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0.7

File Name : 81880002 Site Code : 81880002 Start Date : 3/7/2019 Page No : 3

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear



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

Peak Hour for Each Approach Begins at:

0	04:00 PM			Ū	04:00 PM			1	04:30 PM			-	05:00 PM			
+0 mins.	0	144	10	154	0	0	0	0	4	180	0	184	<b>5</b>	0	2	
+15 mins.	0	119	7	126	0	0	0	0	e	216	0	219	4	0	2	9
+30 mins.	0	120	18	138	0	0	0	0	2	225	0	227	e 9	0	9	6
+45 mins.	0	122	12	134	0	0	0	0	4	198	0	202	3	0	o, ro	
Fotal Volume	0	505	47	552	0	0	0	0	13	819	0	832	19	0	15	34

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

	њ Ш	Route 125 From North		O PIO	Old Green Hill Rd From East			Route 125 From South		Scrut	Scruton Pond Rd From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	138	10	0	0	0	Q	210	0	-	0	4	368
04:15 PM	0	117	7	0	0	0	2	176	0	-	0	2	305
04:30 PM	0	119	18	0	0	0	4	178	0	4	0	-	324
04:45 PM	0	121	12	0	0	0	ы	215	0	~	0	2	354
Total	0	495	47	0	0	0	14	677	0	4	0	σ	1351
05:00 PM	0	106	10	0	0	0	2	225	0	σ	0	2	354
05:15 PM	0	113	10	o	0	0	4	198	0	4	0	2	331
05:30 PM	0	86	Ø	0	0	0	Q	168	0	С	0	Q	277
05:45 PM	0	88	6	0	0	0	4	165	0	£	0	5	274
Total	0	393	37	0	0	0	16	756	0	19	0	15	1236
E Freedow	c		č	¢					5 5				
Grand I otal	D	888	84	0	0	0	30	1535	0	26	0	24	2587
Apprch %	0	91.4	8.6	0	0	0	1.9	98.1	0	52	0	48	
Total %	0	34.3	3.2	0	0	0	1.2	59.3	0	٣	0	0.9	

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

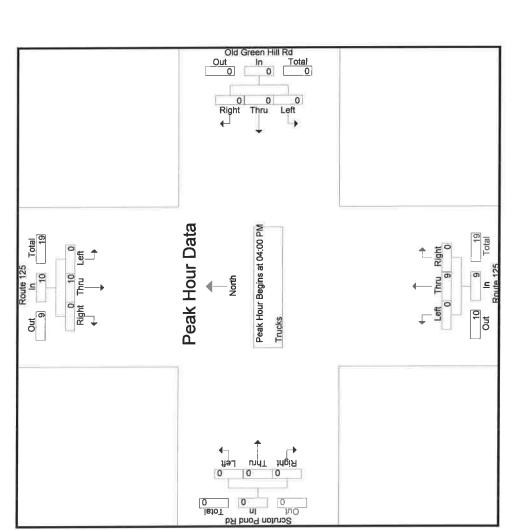
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LCI

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

	From North	F				From	East			From South	South			From West	West		
App. Total	Right App. Total	light App. Total	p. Total		Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
sak 1 of 1	Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	1 - Peak 1 of 1	l of 1														
_	Peak Hour for Entire Intersection Begins at 04:00 PM	0 PM															
9	9	0 6	9		0	0	0	0	0	£	0	F	0	0	0	0	7
2	0 2	0 2	2		0	0	0	0	0	'n	0	ŝ	0	0	0	0	7
	0	0	۲-		0	0	0	0	0	2	0	0	0	0	0	0	С
Ł	0 1	0 1	-		0	0	0	0	0	-	0	-	0	0	0	0	2
10	0 10	0 10	10		0	0	0	0	0	6	0	6	0	0	0	0	19
	0	0			0	0	0		0	100	0		0	0	0		
.417 .000		1.14		2	e	000	000	000	000	160	000	460	000	000	000	000	670

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

Accurate Counts 978-664-2565 File Name : 81880002 Site Code : 81880002 Start Date : 3/7/2019 Page No : 11



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

Peak Hour for Each Approach Begins at:

5	04:00 PM			Ğ	04:00 PM			-	04:00 PM				04:00 PM			
+0 mins.	0	9	0	ø	0	0	0	0	0	-	0	-	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	ſ	0	Ľ	0	0	0	0
+30 mins.	0	-	0	Ł	0	0	0	0	0	9 01	0	201	0	0	0	0
+45 mins.	0	-	0	-	0	0	0	0	0	-	0	-	0	0	0	0
Total Volume	0	10	0	10	0	0	0	0	0	ŋ	0	6	0	0	0	

N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

		From North	125 lorth		5	Old Green Hill Rd From East	Hill Rd ast			From South	uth Uth		U)	Scruton Pond Rd From West	ind Rd est				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total Inclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	ο	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0
Grand Total Apprch %	0 0	0 0	0 0	0	0 0	0 0	0 0	0	0 0	0 0	0 0	0	0 0	0 0	0 0	0	0	0	0
Total %																	0	0	

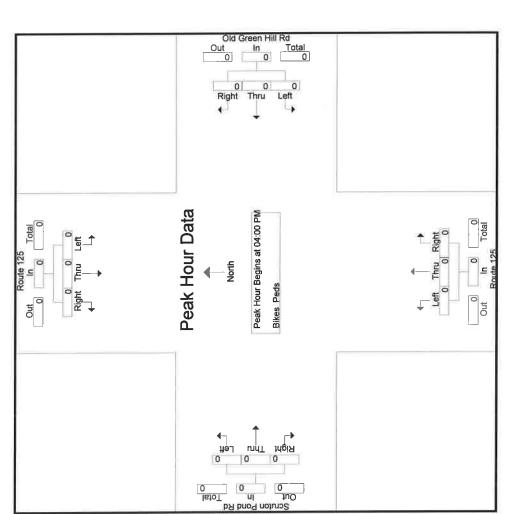
N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

		Rout	Route 125			Old Green Hill Rd	hill Rd			Route 125	125			Scruton Pond Rd	<sup>2</sup> ond Rd		
		From	From North			From East	East			From South	South			From West	West		
Start Time	Left	Thru	Right	Thru Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	om 04:00 F	<sup>o</sup> M to 05:4	15 PM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM	Itersection	Begins at	04:00 PM														
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
HHF	000	000	000.	000.	000	000	000	000	000	000	000	000	000	000	000	000	000

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

Accurate Counts 978-664-2565

File Name : 81880002 Site Code : 81880002 Start Date : 3/7/2019 Page No : 15



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

Peak Hour for Each Approach Begins at:

-	04:00 PM			ð	04:00 PM				04:00 PM			5	04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

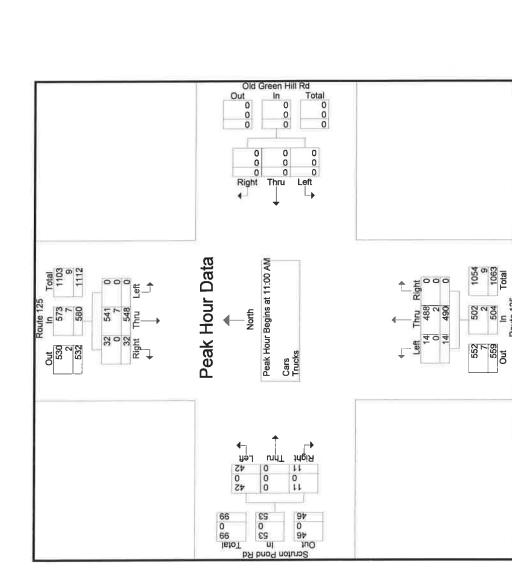
N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

	с Г	Route 125 From North		0 PO	Old Green Hill Rd From East		κF	Route 125 From South		Scrut	Scruton Pond Rd From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	0	107	12	0	0	0	5	132	0	=	0	5	272
11:15 AM	0	134	9	0	0	0	ę	124	0	15	0	£	285
11:30 AM	0	166	4	0	0	0	4	111	0	9	0	~	292
11:45 AM	0	141	10	0	0	0	2	123	0	10	0	2	288
Total	0	548	32	0	0	0	14	490	0	42	0	1	1137
12:00 PM	0	124	10	0	0	0	7	111	0	Q	0	4	257
12:15 PM	0	122	9	0	0	0	-	123	0	6	0	9	267
12:30 PM	0	112	7	0	0	0	2	132	0	7	0	4	264
12:45 PM	0	106	10	0	0	0	4	140	0	12	0	ო	275
Total	0	464	33	o	0	0	6	506	0	34	0	17	1063
01:00 PM	0	116	8	0	0	0	ę	126	0	80	0	Q	266
01:15 PM	0	103	11	0	0	0	e	118	0	5	0	2	242
01:30 PM	0	125	4	0	0	0	5	116	0	5	0	e	258
01:45 PM	0	109	8	0	0	0	-	123	0	e	0	2	246
Total	0	453	31	0	0	0	12	483	O	21	0	12	1012
Grand Total	0	1465	96	0	0	0	35	1479	0	97	0	40	3212
Apprch %	0	93.9	6.1	0	0	0	2.3	97.7	0	70.8	0	29.2	
Total %	0	45.6	e	0	0	0	1.1	46	0	e	0	1.2	
Cars	0	1456	96	0	0	0	35	1470	0	97	0	40	3194
% Cars	0	99.4	100	0	0	0	100	99.4	0	100	0	100	99.4
Trucks	0	6	0	0	0	0	0	6	0	0	0	0	
% Thicke	C	0.6	C	C	c	c	c	90	c	c	c	(	0

N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

		From North	e 125 North			Old Green Hill From East	Old Green Hill Rd From East			Route 125 From South	s 125 South			Scruton Pond Rd From West	Pond Rd West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thu	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Riaht	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1	11:00 A	M to 01:4	5 PM - Pe	ak 1 of 1											5		
Peak Hour for Entire Intersection Begins at 11:00 AM	tersection	Begins at '	11:00 AM														
11:00 AM	0	107	12	119	0	0	0	0	'n	132	0	137	11	0	10	16	27:
11:15 AM	0	134	9	140	0	0	0	0	3	124	0	127	15	0	<b>ი</b>	18	285
11:30 AM	0	166	4	170	0	0	0	0	4	111	0	115	9 9	0	-	~	20
11:45 AM	0	141	10	151	0	0	0	0	2	123	0	125	10	0	2	12	28
Total Volume	0	548	32	580	0	0	0	0	14	490	0	504	42	0	1	23	1137
% App. Total	0	94.5	5.5		0	0	0		2.8	97.2	0		79.2	0	20.8	•	
PHF	000	.825	.667	.853	000	000	000	000	.700	.928	000	.920	.700	000	.550	736	.97
Cars	0	541	32	573	0	0	0	0	14	488	0	502	42	0	÷	53	112
% Cars	0	98.7	100	98.8	0	0	0	0	100	<u> 9</u> .6	0	<u>9</u> .66	100	0	100	100	2.66
Trucks	0	7	0	7	0	0	0	0	0	2	0	2	0	0	0	0	
% Trucks	0	1.3	0	1.2	0	0	0	0	0	0.4	0	0.4	0	0	0		0.8

> N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

		6	<b>6</b> 4	<b>რი4</b> დ	ლი4 თ.თ.	<del>م</del> م 4 مه	Ř
12:15 PM							4 7 7 9 8 9 8 8 8 8 9 8 8 8 9 8 8 8 9 8 8 8 8 9 8
	124		134	134 144	134 <b>144</b> 129	134 <b>144</b> 129 531	134 <b>144</b> 129 531
	0		0	0 0			
	123	132	12	140	<b>140</b> 126	<b>140</b> 126 521	<b>140</b> 126 521 98.1
12:15 PM	-	2	ſ	4	40	4 rc 0	4 ° C C 6.
	0	0		0	00	000	000
	0	0		0	00		
	0	0		0	0 0		
11:00 AM	0	0		0	00	000	
	140	170		151	151 134	151 134 595	151 134 595
	9	4		10	<b>9</b> 0	<b>10</b> 30	<b>1</b> 0 30 30
	134	166		141	141 124	141 124 565	141 124 565 95
MA CIT	0	0		0	00	0 0 0	
	+0 mins.	+15 mins.		+30 mins.	+30 mins. +45 mins.	+30 mins. +45 mins. Total Volume	+30 mins. +45 mins. Total Volume % App. Total

N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

	Int. Total	268	282	292	286	1128	257	264	264	275	1060	264	240	257	245	1006	3194	
	Right	5	°	-	2	4	4	9	4	e	17	5	2	ю	2	12	40	29.2
Scruton Pond Rd From West	Thru	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scruto	Left	11	15	9	10	42	9	6	7	12	34	ω	5	5	e	21	97	70.8
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
From South	Thru	131	123	111	123	488	111	122	132	140	505	124	116	115	122	477	1470	97.7
	Left	S	e	4	2	14	2	-	2	4	6	ო	С	5	-	12	35	2.3
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Old Green Hill Rd From East	Thru	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Right	12	9	4	10	32	10	9	7	10	33	80	11	4	80	31	96	6.2
	Thru	104	132	166	139	541	124	120	112	106	462	116	103	125	109	453	1456	93.8
or G	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Start Time	11:00 AM	11:15 AM	11:30 AM	11:45 AM	Total	12:00 PM	12:15 PM	12:30 PM	12:45 PM	Total	01:00 PM	01:15 PM	01:30 PM	01:45 PM	Total	Grand Total	Apprch %

N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

			Int. Total	4	ę	0	2	6	0	r	0	0	e	c	1 0	<b>~</b> -	1	9	18		
			Right	0	0	0	0	0	0	0	0	0	0	c	0 0	0	0	0	0	0	0
	Scruton Pond Rd	From West	Thru	0	0	0	0	0	0	0	0	0	0	c	0 0	0	0	0	0	0	0
	Scrutor	Fror	Left	0	0	0	0	0	0	0	0	0	0	C	0 0	0	0	0	0	0	0
			Right	0	0	0	0	0	0	0	0	0	0	c	0	0	0	0	0	0	0
	Route 125	n South	Thru	-	-	0	0	2	0	÷	0	0	-	~	1 01	-	-	9	6	100	50
s			Left	0	0	0	0	0	0	0	0	0	0	c	0 0	0	0	0	0	0	0
Groups Printed- Trucks			Right	0	0	0	0	0	0	0	0	0	0	c	2 0	0	0	0	0	0	0
Groups	Old Green Hill Rd	From East	Thru	0	0	0	0	0	0	0	0	0	0	c	0	0	0	0	0	0	0
	Old Gree	- 12	Left	0	0	0	0	0	٥	0	0	0	0	C	0	0	0	0	0	0	0
			Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Route 125	North	Thru	ę	5	0	2	7	0	2	0	0	2	0	0	0	0	0	6	100	50
	Rout		Left	0	0	0	0	0	0	0	0	0	0	c	0	0	0	0	0	0	0
			Start Time	11:00 AM	11:15 AM	11:30 AM	11:45 AM	Total	12:00 PM	12:15 PM	12:30 PM	12:45 PM	Total	01-00 PM	01:15 PM	01:30 PM	01:45 PM	Total	Grand Total	Apprch %	Total %

	nd Road	HN	
N/S Street : Route 125	E/W Street: Scruton Pond Road	City/State : Barrington, NH	Clear
N/S Street	E/W Street	City/State	Weather

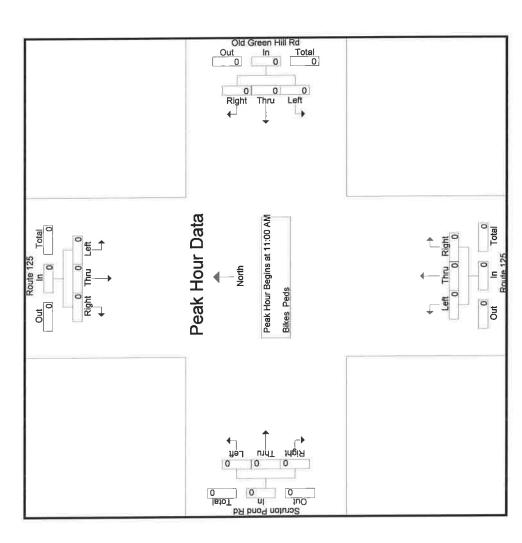
Groups Printed- Bikes Peds	Route 125 From South	
Group	Old Green Hill Rd From East	
125 i Pond Road ton, NH	Route 125 From North	
N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear		i

		22		J	UID Green HIII KD				Koute 125	125		מ	Scruton Pond Kd	DNO KO				
From North	ž	ţ			From East	ast			From South	outh			From West	Vest				
Thru		Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thr	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0		0	0	0		0	0	0		0	0	0		-	c	

N/S Street : Route 125 E/N Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear

		Route 125	i 125			Old Gree	Old Green Hill Rd			Route 125	125			Scruton Pond Rd	<sup>2</sup> ond Rd		
		From North	North			From East	East			From South	South			From West	West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	Right App. Total	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1	2m 11:00 /	VM to 01:4(	5 PM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM	tersection	Begins at	11:00 AM														
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	000	000	000	000	000	000	000	000	000	000	000	000.	000	000	000	000	000

> N/S Street : Route 125 E/W Street: Scruton Pond Road City/State : Barrington, NH Weather : Clear



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	11:00 AM			*-	11:00 AM				11:00 AM			•	11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	000	000	000	000	000	000	000	000	000	000	000	000	000	000	000.	000

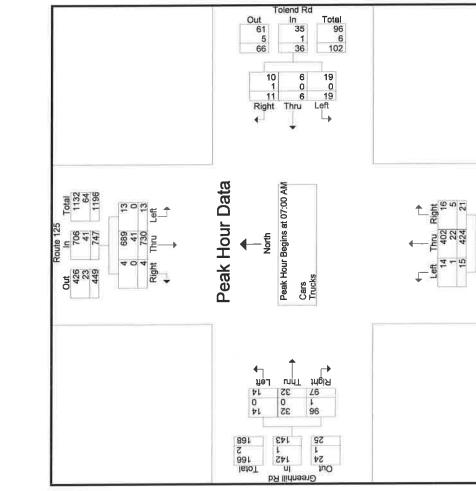
N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

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9	9	7
4	14	21
5	25	36
2.7	35.7	3.9
-	-	1.5
4	24	35
96	96	97.2
-	-	÷
4	Ţ	2.8

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Rout	Route 125			Tolend Rd	id Rd			Route 125	i 125			Greenhill Rd	hill Rd		
		From	From North			From East	East			From South	South			From West	West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1	om 07:00	AM to 08:4	5 AM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM	ntersection	Begins at	07:00 AM														
07:00 AM	0	174	8	176	7	-	e	11	~	06	ю	94	ю	4	25	32	313
07:15 AM	-	196	-	198	2	4	0	9	7	111	9	124	з	6	29	41	369
07:30 AM	5	187	0	192	5	-	2	80	5	111	4	120	4	7	19	30	350
07:45 AM	7	173	-	181	с,	0	9	11	2	112	80	122	4	12	24	40	354
Total Volume	13	730	4	747	19	9	1	36	15	424	21	460	14	32	67	143	1386
% App. Total	1.7	97.7	0.5		52.8	16.7	30.6		3.3	92.2	4.6		9.8	22.4	67.8		
ЪНF	.464	.931	.500	.943	619.	.375	.458	.818	.536	.946	.656	.927	.875	.667	.836	.872	.939
Cars	13	689	4	206	19	9	10	35	14	402	16	432	14	32	96	142	1315
% Cars	100	94.4	100	94.5	100	100	6.06	97.2	93.3	94.8	76.2	93.9	100	100	0.99.0	99.3	94.9
Trucks	0	41	0	41	0	0	۰-	-	-	22	5	28	0	0	-	<b>4</b>	71
% Trucks	0	5.6	0	5.5	0	0	9.1	2.8	6.7	5.2	23.8	6.1	0	0	1.0	0.7	5.1

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear



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

1236 70 1306 Total

432 28 460

804 42 846 Out

Peak Hour for Each Approach Begins at:

3	07:00 AM			0	07:30 AM				07:15 AM				07:00 AM			
+0 mins.	0	174	2	176	5	-	2	Ø	7	111	9	124	e	4	25	ŝ
+15 mins.	-	196	-	198	S	0	9	11	2	111	4	120	ŝ	6	29	41
+30 mins.	5	187	0	192	-	2	5	Ø	7	112	80	122	4	7	19	ñ
+45 mins.	7	173	-	181	6	ო	-	13	4	110	е	117	4	12	24	4
Total Volume	13	730	4	747	20	9	14	40	18	444	21	483	14	32	97	14

Accurate Counts 978-664-2565

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

	Int. Total	296	353	328	338	1315	277	262	262	238	1039	2354		
	Right	24	29	19	24	96	25	21	6	10	65	161	66.5	
Greenhill Rd From West	Thru	4	6	7	12	32	n	1	2	5	24	56	23.1	
Gre	Left	£	ю	4	4	14	ю	ო	4	۲	7	25	10.3	
	Right	e	4	ო	Q	16	e	ю	10	0	18	34	3.9	
Route 125 From South	Thru	86	105	103	108	402	108	82	106	94	390	792	92	
	Left	<del>.</del>	7	4	2	14	4	5	5	7	21	35	4.1	
	Right	e	0	N	5	10	с,	٣	2	9	14	24	34.8	
Tolend Rd From East	Thru	-	4	-	0	g	2	S	-	7	æ	4	20.3	
ΡË	Left	7	7	ß	5	6	£	6	2	0	12	31	44.9	
	Right	N	-	0	٣	4	7	<del></del>	ю	4	10	14	1.2	
Route 125 From North	Thru	162	188	175	164	689	118	118	114	102	452	1141	96.5	
Fro	Left	0	-	5	7	ű	n	S	-	S	14	27	2.3	
	Start Time	07:00 AM	07:15 AM	07:30 AM	07:45 AM	Total	08:00 AM	08:15 AM	08:30 AM	08:45 AM	Total	Grand Total	Apprch %	

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

	μŢ	Route 125 From North		μu	Tolend Rd From East		ж <u>Г</u>	Route 125 From South			Greenhill Rd From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
	0	12	0	0	0	0	0	4	0	0	0	-	17
	0	ω	0	0	0	0	0	9	2	0	0	0	16
	0	12	0	0	0	0	-	8	-	0	0	0	22
07:45 AM	0	6	0	0	0	-	0	4	2	0	0	0	16
Total	0	41	0	0	0	~	÷	22	Q	0	0	*	71
08:00 AM	0	σ	0	0	0	0	0	2	0	0	0	Ŧ	12
08:15 AM	0	4	0	0	0	0	0	S	0	0	0	0	o
08:30 AM	0	5	0	0	0	0	0	თ	0	0	0	0	14
08:45 AM	٣	Э	0	0	0	0	0	10	0	0	0	0	14
Total	-	21	0	0	0	0	0	26	0	0	0	-	49
Grand Total Apprch % Total %	1.6 1.6 8.0	62 98.4	000	000	000	1001	1.9	48 88.9	9.3 9.3	000	000	100	120

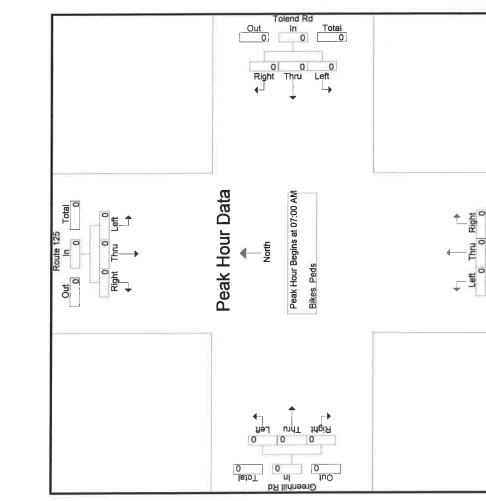
N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Route 125 From North	125 Vorth			Tolend Rd From East	Rd ast	From Sout		From South	125 buth			Greenhill Rd From West	l Rd est				
Start Time	Left	Thru	Righit	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total Inclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total Apprch %	0 0	00	0 0	0	0 0	0 0	0 0	0	0 0	0 0	0 0	0	00	0 0	00	0	0	0	
Total %	•	•	•		0	2	þ		2	þ	þ		5	þ	5		0	0	

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Route 125	s 125			Tole	Tolend Rd				Route 125	125			Greenhill Rd	hill Rd		
		From	From North			From	n East				From South	outh			From West	West		
Start Time	Left	Thru	Right	Thru Right App. Total	Left	Thru	Right	App. Total	otal	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1	om 07:00 4	M to 08:4	5 AM - Pe	ak 1 of 1														
Peak Hour for Entire Intersection Begins at 07:00 AM	tersection	Begins at (	07:00 AM															
07:00 AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0			0	0	0		0	0	0		
PHF	000	000	000	000	000	000	000		000	000	000	000.	000	000	000	000	000	000

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear



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

0 Total

0

E

Out

Peak Hour for Each Approach Begins at:

J	07:00 AM			Ö	07:00 AM			5	17:00 AM			0	07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
+15 mins.	0	0	0	0	0	0	0	0	0			0	0		0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0		5
+45 mins.	0	0	0	0	0	0	0	0	0		0		0			
Total Volume	0	0	0	0	0	0	0	0	0	0	0		0	0	0	

Accurate Counts 978-664-2565

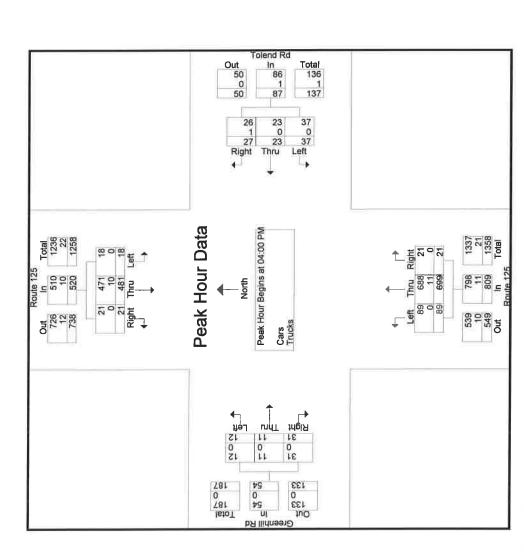
N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

	кŢ	Route 125 From North		. –	Tolend Rd From East			Route 125 From South		<u>9</u> п	Greenhill Rd From West		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	7	136	4	7	4	ω	21	184	9	n	2	10	392
04:15 PM	ю	111	4	12	11	Q	22	156	ю	0	4	5	337
04:30 PM	5	119	7	6	ю	g	21	164	7	9	N	Q	352
04:45 PM	9	115	9	6	Ω	7	25	195	5	ო	ę	10	389
Total	18	481	21	37	23	27	89	669	21	12	÷	31	1470
05:00 PM	g	102	4	Ø	σ	4	33	177	ດ	ъ	4	œ	369
05:15 PM	2	103	S	10	12	7	22	167	7	n	0	Ø	346
05:30 PM	Q	81	ę	5	5 2	N	19	157	ю	4	4	12	301
05:45 PM	4	89	N	9	ъ	4	20	158	~	e	ю	9	301
Total	18	375	14	29	31	17	94	659	20	15	1	34	1317
Grand Total	36	856	35	99	54	44	183	1358	41	27	22	65	2787
Apprch %	3.9	92.3	3.8	40.2	32.9	26.8	11.6	85.8	2.6	23.7	19.3	57	
Total %	1.3	30.7	1.3	2.4	1.9	1.6	6.6	48.7	1.5	-	0.8	2.3	
Cars	36	840	35	99	54	43	183	1345	41	27	22	65	2757
% Cars	100	98.1	100	100	100	97.7	100	66	100	100	100	100	98.9
Trucks	0	16	0	0	0	-	0	13	0	0	0	0	30
% Trucks	0	1.9	C	C	c	50	c		c	c	c		

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Route	Route 125			Toler	Tolend Rd			Route	Route 125			Greenhill Rd	hill Rd		
		From	From North			From	From East			From	From South			From West	West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	om 04:00 l	<sup>-</sup> M to 05:4	5 PM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM	Itersection	Begins at	04:00 PM														
04:00 PM	7	136	4	147	7	4	ø	19	21	184	9	211	ы	8	9	15	39,
04:15 PM	ო	111	4	118	12	11	9	29	22	156	З	181	0	4	5	6	337
04:30 PM	2	119	7	128	6	e	9	18	21	164	7	192	9	2	9	14	352
04:45 PM	9	115	9	127	6	5 2	7	21	25	195	5	225	S	ю	10	16	389
Total Volume	18	481	21	520	37	23	27	87	68	669	21	808	12	11	31	54	1470
% App. Total	3.5	92.5	4		42.5	26.4	31		11	86.4	2.6		22.2	20.4	57.4		
PHF	.643	.884	.750	.884	-771	.523	.844	.750	.890	896.	.750	899.	.500	.688	.775	.844	.938
Cars	18	471	21	510	37	23	26	86	89	688	21	798	12	1	31	54	1448
% Cars	100	97.9	100	98.1	100	100	96.3	98.9	100	98.4	100	98.6	100	100	100	100	98.5
Trucks	0	10	0	10	0	0	•	-	0	11	0	11	0	0	0	0	2
% Trucks	0	2.1	0	1.9	0	0	3.7	1.1	0	1.6	0	1.4	0	0	0	0	1.5

> N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear



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

Peak Hour for Each Approach Begins at:

0	04:00 PM			-	04:15 PM				04:30 PM				04:45 PM			
+0 mins.	7	136	4	147	12	1	9	29	21	164	7	192	e	ę	10	7
+15 mins.	ю	111	4	118	6	e	9	18	25	195	5	225	'n	4	8	17
+30 mins.	2	119	7	128	6	S	7	21	33	177	6	219	ŝ	0	8	-
+45 mins.	9	115	9	127	œ	6	4	21	22	167	7	196	4	4	12	2
Total Volume	18	481	21	520	38	28	23	68	101	703	28	832	15	1	38	9

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

e Name : e Code : art Date : ge No ::	81880003 81880003	3/7/2019	5
	File Name : Site Code :	Start Date :	Page No

	Int. Total	383	330	348	387	1448	368	344	297	300	1309	2757
	Right	10	S	9	10	31	Ø	Ø	12	Q	34	65 57
Greenhill Rd From West	Thru	2	4	2	ო	÷	4	0	4	ę	11	22 19.3
Gre Fro	Left	ю	0	9	т	12	ъ	ы	4	ო	15	27 23.7
	Right	9	ო	7	ũ	21	თ	7	e	-	20	41 2.6
Route 125 From South	Thru	182	152	160	194	688	177	167	156	157	657	1345 85.7
	Left	21	22	21	25	89	33	22	19	20	94	183 11.7
	Right	7	Q	Q	7	26	4	7	7	4	17	43 26.4
Tolend Rd From East	Thru	4	11	ю	5	23	თ	12	5	£	31	54 33.1
To Fr	Left	7	12	6	0	37	œ	10	5	9	29	66 40.5
	Right	4	4	7	9	21	4	ß	n	2	4	35 3.8
Route 125 From North	Thru	130	108	119	114	471	101	101	78	89	369	840 92.2
	Left	7	e	2	9	18	9	2	9	4	18	36 4
	Start Time	04:00 PM	04:15 PM	04:30 PM	04:45 PM	Total	05:00 PM	05:15 PM	05:30 PM	05:45 PM	Total	Grand Total Apprch %

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

Left Thru
0
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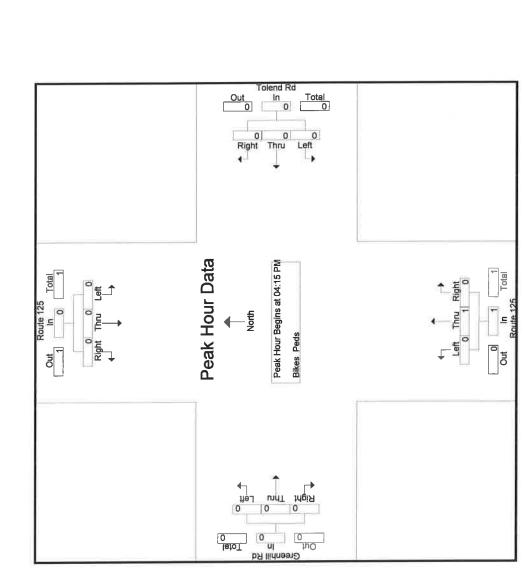
N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Route 125	125			Tolend Rd	l Rd			Route 125	125			Greenhil! Rd	l Rd				
		From North	ž			From East	East			From South	outh			From West	/est				
Start Time	Left	The	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total Inclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	~		0	
05:00 PM	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0	~	
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	o	0	0	0	-	0	0	0	0	0	0	0	-	
Grand Total	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	÷	<b></b>	T	
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0				
Total %	0	0	0		0	0	0		0	100	0		0	0	0		50	50	

125	E/W Street: Greenhill Rd / Tolend Rd	jton, NH	
N/S Street : Route 125	W Street: Green	City/State : Barrington, NH	Weather : Clear
Ž	Ð	ΰ	Š

		Route 125	: 125			Tolei	Tolend Rd			Rout	Route 125			Greenhill Rd	nill Rd		
		From North	North			From	From East			From	From South			From West	West		
Start Time	Left	Thru	Right	Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1	om 04:00 F	M to 05:45	5 PM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM	Itersection	Begins at (	04:15 PM														
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	J
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	J
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	÷	0	-	0	0	0	0	·
Total Volume	0	0	0	0	0	0	0	0	0	-	0		0	0	0	0	
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	000.	000	000	000	000	000.	000	000	000	.250	000	.250	000	000	000	000	.250

> N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear



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

Peak Hour for Each Approach Begins at:

10 mins.       -0 mins.         +0 mins.       0         15 mins.       0         16 mins.       0         17 mins.       0         18 mins.       0         19 mins.       0         10 mins.       0         11 mins.       0         12 mins.       0         13 mins.       0 <th></th> <th>04:00 PM</th> <th></th> <th></th> <th>0</th> <th>04:00 PM</th> <th></th> <th></th> <th></th> <th>04:15 PM</th> <th></th> <th></th> <th>0</th> <th>4:00 PM</th> <th></th> <th></th>		04:00 PM			0	04:00 PM				04:15 PM			0	4:00 PM		
<ul> <li>a) ab ab</li></ul>	+0 mins.	0	0	0	0	0	0	0	0	0				0	0	
<ul> <li>a</li> <li>b</li> <li>b</li> <li>c</li> <lic< li=""> <li>c</li> <lic< li=""> <lic< li=""> <li>c</li> <li>c<td>+15 mins.</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td></td><td>0</td><td>0</td><td>0</td><td></td><td></td><td></td><td>0</td><td>0</td><td>0</td></li></lic<></lic<></lic<></ul>	+15 mins.	0	0	0	0	0		0	0	0				0	0	0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	+30 mins.	0	0	0	0	0		0	0	0	0			0	0	
	+45 mins.	0	0	0	0	0	0	0	0	0	-	0	-	0		0
	Total Volume	0	0	0	0	0	0	0	0	0	F	0	-	0	0	0

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

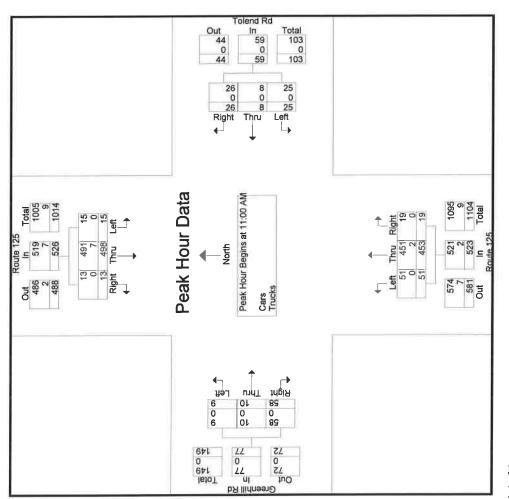
	αű	From North		⊢ц	Tolend Rd From Fast	d Rd Fact		From South		ي م	Greenhill Rd From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
	4	86	ę	6	e	4	1	131	ъ.	2	e	13	286
11:15 AM	-	121	-	5	e	9	18	113	9	2	2	15	293
11:30 AM	8	150	7	5	÷	9	13	94	e	4	4	14	309
11:45 AM	2	129	2	9	<del>ب</del>	10	6	115	ŝ	-	-	16	297
Total	15	498	13	25	80	26	51	453	19	6	10	58	1185
12:00 PM	сı	113	4	S	7	ດ	11	110	4	2	2	12	279
12:15 PM	5	111	4	7	2	4	1	120	2	2	9	15	286
12:30 PM	2	105	e	e	~	6	12	119	ę	4	ю	6	273
12:45 PM	4	96	e	7	2	5	17	131	ო	4	2	1	285
Total	16	425	14	22	7	27	51	480	12	12	10	47	1123
01:00 PM	5	107	٣	9	-	9	13	116	5	Ŧ	-	14	276
01:15 PM	4	91	e	с	-	2	6	114	4	٣	۴-	14	247
01:30 PM	7	115	0	5	9	4	11	104	Q	۲	e	5	267
01:45 PM	œ	101	9	4	4	2	10	104	11	Ţ	e	10	266
Total	24	414	7	18	12	19	43	438	26	4	œ	43	1056
Grand Total	55	1337	34	65	27	72	145	1371	57	25	28	148	3364
Apprch %	3.9	93.8	2.4	39.6	16.5	43.9	9.2	87.2	3.6	12.4	13.9	73.6	
Total %	1.6	39.7	1	1.9	0.8	2.1	4.3	40.8	1.7	0.7	0.8	4.4	
Cars	55	1329	34	65	27	72	145	1360	57	25	28	148	3345
% Cars	100	99.4	100	100	100	100	100	99.2	100	100	100	100	99.4
Trucks	0	œ	0	0	0	0	0	11	0	0	0	0	19
% Trucks	c	5	C	c			(						

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Rout	Route 125			Tolend Rd	id Rd			Route 125	125			Greenhill Rd	hill Rd		
		From	From North			From East	East			From South	South			From West	West		
Start Time	Left	Thru		Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1	om 11:00 A	VM to 01:4	15 PM - Pe	ak 1 of 1											5		
Peak Hour for Entire Intersection Begins at 11:00 AM	Itersection	Begins at	11:00 AM														
11:00 AM	4	98	e	105	6	e	4	16	11	131	5	147	2	e	13	18	286
11:15 AM	-	121	÷	123	5	з	9	14	18	113	9	137	2	2	15	19	293
11:30 AM	8	150	7	165	5	-	9	12	13	94	e	110	4	4	14	22	300
11:45 AM	2	129	2	133	9	-	9	17	6	115	5	129	~	-	16	18	297
Total Volume	15	498	13	526	25	æ	26	59	51	453	19	523	თ	10	58	11	1185
% App. Total	2.9	94.7	2.5		42.4	13.6	44.1		9.8	86.6	3.6		11.7	13	75.3		
PHF	.469	.830	.464	797	.694	.667	.650	.868	108	.865	.792	.889	.563	.625	906.	.875	.959
Cars	15	491	13	519	25	æ	26	59	51	451	19	521	6	10	58	17	117
% Cars	100	98.6	100	98.7	100	100	100	100	100	9.66	100	9.66	100	100	100	100	99.2
Trucks	0	7	0	7	0	0	0	0	0	2	0	2	0	0	0	0	0.
% Trucks	0	1.4	0	1.3	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0.0

> N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear





Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

	13	15	14	16	58	75.3	906.
	e	2	4	-	10	13	.625
11:00 AM	2	2	4	-	ດ	11.7	.563
-	133	134	151	134	552		914
	2	3	з	ŝ	13	2.4	.650
	120	119	131	116	486	88	.927
12:15 PM	11	12	17	13	53	9.6	627.
-	16	14	12	17	59		.868
	4	9	9	9	26	44.1	.650
	ო	3	-	-	œ	13.6	.667
11:00 AM	6	5	5	9	25	42.4	.694
-	123	165	133	122	543		.823
	-	7	2	4	14	2.6	.500
	121	150	129	113	513	94.5	.855
1:15 AM	-	80	2	S	16	2.9	.500
Ţ.,	+0 mins.	+15 mins.	+30 mins.	+45 mins.	Total Volume	% App. Total	PHF

.875

18 19 **22** 18 77

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

File Name:818800S3 Site Code:81880003 Start Date:3/9/2019 Page No :5

		Route 125 From North		μű	Tolend Rd From East		КĘ	Route 125 From South		ரம்	Greenhill Rd From West		
Start Time	Left	Thu	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Riaht	Int. Total
11:00 AM	4	95	e	6	e	4	11	130	2 L	2	e	13	282
11:15 AM	-	119	-	5	e	9	18	112	9	2	2	15	290
11:30 AM	80	150	7	5	-	9	13	94	Ю	4	4	14	309
11:45 AM	2	127	2	9	۲-	10	6	115	S	-	-	16	295
Total	15	491	13	25	æ	26	51	451	19	6	10	58	1176
12:00 PM	5	113	4	5	2	0	11	109	4	2	0	12	278
12:15 PM	5	110	4	7	2	4	11	119	7	2	ę	15	284
12:30 PM	2	105	e	ę	-	σ	12	119	ო	4	ę	6	273
12:45 PM	4	96	e	7	2	5	17	131	e	4	2	5	285
Total	16	424	44	22	7	27	51	478	12	12	10	47	1120
01:00 PM	5	107	F	9	-	9	13	113	5	-	-	14	273
01:15 PM	4	91	e	e	۲-	2	6	112	4	-	-	14	245
01:30 PM	7	115	0	5	9	4	11	104	9	T.	£	5	267
01:45 PM	8	101	ę	4	4	7	10	102	11	۲	ო	10	264
Total	24	414	7	18	12	19	43	431	26	4	æ	43	1049
Grand Total	55	1329	34	65	27	72	145	1360	57	25	28	148	3345
Apprch %	3.9	93.7	2.4	39.6	16.5	43.9	9.3	87.1	3.6	12.4	13.9	73.6	
Total %	16	39.7	-	10	80		C 1	201	1	1	0		

File Name : 818800S3 Site Code : 81880003 Start Date : 3/9/2019 Page No : 9

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

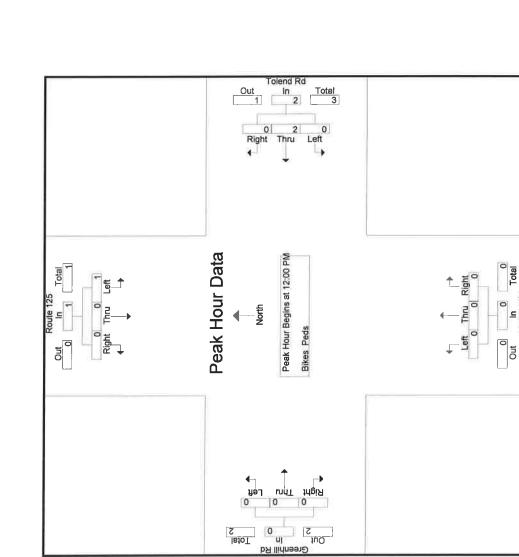
Accurate Counts	978-664-2565
<	

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear

		Route 125	i 125			Tolend Rd	d Rd			Route 125	125			Greenhill Rd	hill Rd		
		From North	North			From East	East			From South	South			From West	West		
Start Time	Left	Thru	Right	Thru Right App. Total	Left	Thru	Right	App. Total	Left	Thru	Right /	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1	om 11:00 /	VM to 01:4	5 PM - Pe	ak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM	tersection	Begins at	12:00 PM														
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	-	0	0	-	0	-	0	Ŧ	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	-	0	~	0	0	0	0	0	0	0	0	
Total Volume	-	0	0	-	0	2	0	2	0	0	0	0	0	0	0	0	e
% App. Total	100	0	0		0	100	0		0	0	0		0	0	0		
PHF	.250	000	000.	.250	000	.500	000	.500	000	000	000	000	000	000	000	000	.375

N/S Street : Route 125 E/W Street: Greenhill Rd / Tolend Rd City/State : Barrington, NH Weather : Clear



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1 Peak Hour for Each Approach Begins at:

<u>\_</u>

	11:45 AM			-	12:00 PM				11:00 AM			•	11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	-	0	~	0	0	0	0	0	0	0	
+45 mins.	-	0	0	-	0	-	0	-	0	0	0	0	0	0	0	
Total Volume	-	0	0	-	0	2	0	2	0	0	0	0	0	0	0	
% App. Total	100	0	0		0	100	0		0	0	0	I				
PHF	.250	000	000.	.250	000	.500	000	500	000	000	000	000	000		000	000

SEASONAL ADJUSTMENT DATA

# New Hampshire DOT 02389090: Monthly Hourly Volume for March 2018

Location:	Funcationl Class	County:	Location ID:
Spaulding Tpke N	2	STRAFFORD	02389090
Growth Factor Group:	Axle Factor Group:	Daily Factor Group:	Seasonal Factor Group:
			03

		31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	09	7	6	ы	4	ω	2	1	
		263	226	200	169	182	99	223	277	216	180	226	201	126	230	267	223	200	62	223	104	197	281	157	74	236	195	106	197	233	202	211	0:00
		147	; 124	94	86		72	119	148	119	88	81	92	70	149	151	112	112	34	87	75	128	158	100	51	92	100	72	133	127	126	102	1:00
		7 89	4 93	4 104	86 9	5 102	2 71	88	3 104	9 106	3 96	117	2 111	0 72	9 94	101	114	129	54	91	83	54	3 105	95	. 70	86	80	73	100	82	109	107	2:00
		83	3 147	4 181	8 170	2 164	1 143	9 61	4 100	6 184	6 166	7 169	1 189	2 168	4 78	1 92	1 183	9 196	1 120	1 136	3 153	4 54	5 115	5 179	83	3 208	) 175	3 166	) 56	28	9 172	163	3:00
		3 213	7 383	1 462	0 459	4 464	3 452	1 132	0 212	4 421	6 409	9 439	9 438	8 475	8 109	2 219	3 430	6 446	0 276	6 212	3 466	4 125	5 213	9 417	3 164	8 447	5 469	5 476	5 128	183	2 371	460	0 4:00
		13 361	33 889	32 956	9 925	4 955	2 925	2 237	.2 383	1 896	19 832	9 956	966 8	5 970	9 249	9 365	0 917	606 9	6 534	2 416	6 955	5 241	3 387	7 952	4 239	7 936	666 6	6 962	8 250	3 353	1 811	936	0 5:00
		51 569	39 1734	56 2011	25 2014	5 1996	25 2048	\$7 376	33 640	)6 1879	12 1566	6 1980	16 2026	0 1983	9 399	5 628	.7 1926	19 1947	4 1144	6 745	5 1947	1 470	7 800	2 1917	9 451	6 1973	9 2067	2 1984	0 420	3 537	1 1512	1791	6:00
			34 2448	11 2726	14 2618	96 2669	48 2687		40 1024	79 2448	56 1932	30 2626	26 2674	33 2592	99 584	8 1076	2690	17 2726	14 1601	15 758	17 2636	10 663	0 1147	17 2663	1 577	'3 2539	37 2815	14 2635	0 546	17 829	.2 1920	2362	10 7:00
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	(ADT):	439	499	402	328	310	286	268	485	527	361	283	321	316	227	526	587	403	319	110	397	242	460	553	317	139	319	300	212	456	408	380	22:00
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Peak-Month (August) ADT: Seasonal Adjustment:

34,636 1.33 VEHICLE TRAVEL SPEED DATA

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22					
95th Percentile 59 MPH					
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Time         15         2           03/08/19         0         0         0           03/08/19         0         0         0           03/08/19         0         0         0           03/08/19         0         0         0           03/08/19         0         0         0           05/00         0         0         0           07/00         0         0         0           07/00         0         0         0           07/00         0         0         0           07/00         0         0         0           08/00         0         0         0           09/00         0         0         0	25.000000000000000000000000000000000000	0000000+000	2012	2	-	40	51	56	61	90	71	76	
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Daily	15th Percentile :	47 MPH											
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Meé 10	Mean Speed(Average) : 10 MPH Pace Speed :	53 MPH 51-60 MPH											
	Number in Pace	5258 67 3%											
Number of V	Number of Vehicles > 55 MPH	2161											

Location : Route 125 Location : South of Scruton Pond Road City/State: Barrington, NH SB	25 [ Scruton Por on, NH	ıd Road													8188SPD1
Start	<b></b>	16	21	26	31	36	41	46	51	56	61	99	71	76	
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Daily		15th 50th 85th 95th	15th Percentile 50th Percentile 85th Percentile 95th Percentile	47 MPH 52 MPH 58 MPH 61 MPH	IIII										
		Mean Speed(Average) 10 MPH Pace Speed	Mean Speed(Average) 10 MPH Pace Speed 1	53 MPH 51-60 MPH	τı										
		Perce	Percent in Pace	67.6%	2 %										
	Numt Perce	Number of Vehicles > 55 MPH Percent of Vehicles > 55 MPH	<ul><li>55 MPH</li><li>55 MPH</li></ul>	2100 33.3%	g %										
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Overall		15th 50th 85th 95th	15th Percentile 50th Percentile 85th Percentile 95th Percentile	47 MPH 52 MPH 58 MPH 60 MPH	ĨĨĨ										
	Numb	Mean Speed(Average) 10 MPH Pace Speed Number in Pace Percent in Pace Number of Vehicles > 55 MPH Dercent of Vehicles > 55 MPH	Mean Speed(Average) 10 MPH Pace Speed : Number in Pace : Percent in Pace : of Vehicles > 55 MPH : of Vehicles > 55 MPH :	53 MPH 51-60 MPH 14461 66.9% 66.9% 56.3%	エエンペンメ										
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Start	-	16	21	26	31	36	41	46	51	56	61	99	71	76	
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0         0         0         0         3         1         13         58         189         150         45           0         0         0         0         0         0         0         131         41           0         0         0         0         0         55         193         155         31           0         0         0         0         0         0         137         162         45           0         0         0         0         0         11         11         101         131         41           0         0         0         0         0         11         11         117         131         41           0         0         0         0         0         11         117         111         131         112         114         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31         111         31 <td< td=""><td>06:00</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td><td>13</td><td>51</td><td>124</td><td>89</td><td>37</td><td>e</td><td>0</td><td>0</td><td>310</td></td<>	06:00	0	0	0	0	0	2	13	51	124	89	37	e	0	0	310
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0         0         0         0         0         13         152         40           0         0         0         0         0         1         13         152         40           0         0         0         0         0         1         1         17         152         40           0         0         0         0         0         0         1         13         14         31           0         0         0         0         0         0         1         12         16         41         31         41	08:00	0	0	0	0	0	0	20	56	189	156	31	ю	0	0	455
0         0         0         0         0         131         41           0         0         0         0         0         137         162         45           0         0         0         0         0         1         123         162         45           0         0         0         0         0         1         123         162         45           0         0         0         0         0         1         123         66         212         197         42           0         0         0         0         0         1         123         66         332         66         314         233         305         76           0         0         0         0         0         1         11         15         67         308         322         67         317         35         76         74         111         37         114         31	00:60	0	0	0	0	0	80	10	48	128	152	40	0	F	0	387
0         0         0         0         137         182         45           0         0         0         0         0         137         182         45           0         0         0         0         0         0         137         182         45           0         0         0         0         0         0         11         12         144         31           0         0         0         0         0         0         11         12         66         217         144         31           0         0         0         0         0         11         12         66         314         279         325         365         76         314         31         31         325         355         76         314         31<	10:00	0	0	0	0	0	с,	თ	41	170	131	41	4	-	0	402
0         0         0         0         10         14         31           0         0         0         0         0         1         10         14         31           0         0         0         0         0         0         1         12         11         42           0         0         0         0         0         1         12         67         308         332         67         42         317         332         335         55         57         305         75         36         72         375         376         375         376	11:00	0	0	0	0	0	7	22	60	137	162	45	4	•	-	436
0         0         0         0         0         197         42           0         0         0         0         0         1         12         197         42           0         0         0         0         0         1         12         67         305         57         56         264         317         35           0         0         0         0         0         1         11         17         55         244         314         323         305         76         76         76         76         77         114         37         31         37         314         37         314         37         314         37         314         37         31         37         31         37         314         37         31	12 PM	0	0	0	0	2	7	28	81	190	144	31	0	0	0	483
0         0         0         0         0         23         76         284         217         36           0         0         0         0         0         1         12         67         308         332         56         76         78         78         73         332         355         76         78         73         73         332         355         76         78         73         74         74         73         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74         74	13:00	0	0	0	0	0	80	53	86	212	197	42	6	0	0	217
0         0         0         1         12         67         308         332         67           0         0         0         0         0         1         11         101         332         305         76           0         0         0         0         0         1         11         75         314         273         365         76           0         0         0         0         0         0         1         1         75         244         86         314         237         365         76         76         77         1111         37         31         31         37         31	14:00	0	0	0	0	0	0	23	76	264	217	36	4	-	0	62
0         0         0         10         11         101         332         305         76           0         0         0         0         0         11         17         57         305         76           0         0         0         0         0         11         75         246         185         314         279         72           0         0         0         0         0         11         75         546         182         31         37         36           0         0         0         0         0         0         11         75         546         182         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         31         37         36         37         36         37         36         37         36         37         36         37         36 <td< td=""><td>15:00</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>F</td><td>12</td><td>67</td><td>308</td><td>332</td><td>67</td><td>თ</td><td>0</td><td>0</td><td>196</td></td<>	15:00	0	0	0	0	0	F	12	67	308	332	67	თ	0	0	196
0         0         0         0         3         24         86         314         279         72           0         0         0         0         0         1         1         75         246         182         36           0         0         0         0         1         1         75         246         182         36           0         0         0         0         0         1         1         75         246         182         36           0         0         0         0         0         1         21         80         74         111         37           15         16         1         21         26         14         31         26         37         31         91         11         37         91	16:00	0	0	0	0	0	10	1	101	332	305	76	4	0	0	83
0         0         0         0         11         75         246         182         36           0         0         0         0         0         11         75         246         182         36           0         0         0         0         0         11         27         111         37           0         0         0         0         0         11         21         80         74         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         14         26         18         111         37         9         9         9         16	17:00	0	0	0	0	0	ო	24	86	314	279	72	S	+-	-	78
0         0         0         0         0         5         14         26         134         111         37           0         0         0         0         0         0         3         16         72         114         37           0         0         0         0         1         24         41         37         9           15h Percentile         54 MPH         50         1         2         4         1         37         9           15th Percentile         54 MPH         57         1030         3286         2979         751           60         0         0         0         1         24         41         37         9           55th Percentile         55 MPH         55 MPH         3286         2979         751         9           6         55 MPH         55 MPH         55 MPH         3286         5979         751           9         55 MPH         55 MPH         55 MPH         55 MPH         3286         2979         751           9         55         55         1030         3286         2979         751           10 MPH Pace Speed(Average)         55 MPH </td <td>18:00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>-</td> <td>11</td> <td>75</td> <td>246</td> <td>182</td> <td>36</td> <td>-</td> <td>0</td> <td>-</td> <td>553</td>	18:00	0	0	0	0	0	-	11	75	246	182	36	-	0	-	553
0         0         0         0         0         14         31           0         0         0         0         0         114         31           0         0         0         0         1         21         80         74         26           15         15         12         1         24         45         58         155           15         0         0         0         0         1         24         45         58           15         54         86         1         2         4         41         37         9           550h Percentile         55 MPH         55 MPH         257         1030         3286         2979         751         9           9         55 MPH         56 MPH         58         37         9         9         751         9           9         55 MPH         58         58         58         56         751         9         751           9         55 MPH         10         1         24         41         37         9           9         56         57         1030         3286         2979         751	19:00	0	0	0	0	0	S	14	26	134	111	37	4	0	0	33
0         0         0         0         0         11         21         80         74         26           0         0         0         0         0         1         21         80         74         26           0         0         0         0         0         1         24         45         58         15           15th Percentile         54 MPH         57         1030         3286         2979         751           6         5         58         257         1030         3286         2979         751           9         55         81h Percentile         54 MPH         55 MPH         56         58         751         9         9           95th Percentile         53 MPH         55 MPH         55 MPH         55 MPH         56         74         37         9         751           95th Percentile         53 MPH         55 MPH         55 MPH         56         75         1030         3286         2979         751           95th Percentile         55 MPH         56         58         75         1030         3286         751         751           10         MPH Pace Speed         51-60	20:00	0	0	0	0	0	0	ຕ	16	72	114	31	4	0	0	240
0         0         0         0         15         15           0         0         0         0         0         1         24         45         58         15           15th Percentile         49 MPH         50th Percentile         49 MPH         24         41         37         9           50th Percentile         54 MPH         50 MPH         55 MPH         24         41         37         9           85th Percentile         55 MPH         55	21:00	0	0	0	0	0	0	11	21	80	74	26	4	0	0	216
0         0         0         1         0         1         24         41         37         9           15th Percentile         54 MPH         50th Percentile         54 MPH         37         9           50th Percentile         54 MPH         50th Percentile         54 MPH         57         1030         3286         2979         751           9         35th Percentile         55 MPH         62 MPH         74 MPH         62 MPH         74 MPH         62 MPH         74 MPH         62 MPH         74	22:00	0	0	0	0	0	0	2	18	45	58	15	2	0	0	140
0         0         0         0         0         58         257         1030         3286         2979         751           15th Percentile         54 MPH         50th Percentile         54 MPH         56 mPH         55 mPH         55 mPH         56 mPH         55 mPH         55 mPH         1030         3286         2979         751           95th Percentile         55 MPH         6         58 mPH         55 MPH         55 MPH         10 mPH Pace Speed         51-60 mPH         10 mPH Pace         57-60 mPH         10 mPH Pace         74.1%           Number in Pace         6265         74.1%         74.1%         74.1%         74.1%         74.1%         74.1%	23:00	0	0	0	0	-	0	-	24	41	37	6	4	0	0	111
15th Percentile 50th Percentile 50th Percentile 85th Percentile 85th Percentile 95th Percentile Mean Speed(Average) 10 MPH Pace Speed 51-10 MPH Pace Speed Number in Pace 51-Percent in Pace 51-	Total	0	0	0	0	9	58	257	1030	3286	2979	751	75	9	4	845
51-	Daily		15t 50th 85th 95th	h Percentile h Percentile h Percentile	49 MPH 54 MPH 59 MPH 62 MPH											
21-60 52																
		NnN	Mean Spee 10 MPH F Num Perc ber of Vehicles	ed(Average) Pace Speed ber in Pace tent in Pace > 55 MPH	55 MPH 51-60 MPH 6265 74.1% 3815											

	1 66 71 76	70 75	0 1 0	0,0		2	2 0 0	3 0	2	4 4 0 0	7 1 0	4 0 0	4 1 0	2 0 7	 	0000	2 0 0	4 0 0	0 0 0	o o Q						57 201 17 5 22683		
																				2451 621						8019 1967		
	46 51																			721 2477						2844 8813		
	36 41		0	- 0	 0	0	0	<del>د</del> ا	2	- ¢										27 146						129 668		
	26 31	30 35																			50 MPH 54 MPH 59 MPH 62 MPH		51-60 MPH 4928	75.6% 3146	48.3%	2 17	49 MPH 54 MPH 59 MPH 62 MPH	55 MPH 51-60 MPH 16832
		20 25					0													00	15th Percentile 50th Percentile 85th Percentile 95th Dercentile	Mean Speed(Average)	10 MPH Pace Speed	Percent in Pace Number of Vehicles > 55 MPH	Percent of Vehicles > 55 MPH	0	15th Percentile 50th Percentile 85th Percentile 95th Percentile	Mean Speed(Average) 10 MPH Pace Speed Number in Pace
NB		Time 15		00:00					08:00					16:00 0					23-00		Daily			Nun	Per	Grand Total 0	Overall	

Page 6

											8188SPD1
	31	36	41	46	51	56	61	99	71	76	
	35	40	45	50	55	60	65	70	75	666	Total
0 0	-	0	0	15	22	18	2	-	0	0	20
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	0	0	0	ŝ	00	6	- un	0		0	28
	0	0	ო	12	8	18	7	-	0	0	75
	-	4	11	30	53	62	19	4	0	-	185
	0	4	10	5	208	151	35	e	0	0	465
	-	12	27	208	466	280	56	æ	0	0	1058
	-	11	74	277	566	311	68	7	•	0	1316
	2	10	36	197	410	271	60	2	0	0	988
	-	4	37	139	300	259	57	60	-	0	806
	0	7	45	112	275	222	53	2	0	0	717
	7	2	32	144	345	219	47	9	0	0	797
	0	4	32	120	286	244	41	4	0	0	731
	10	15	02	230	310	213	38	9	0	0	894
	<i>с</i> о	Ø	56	187	415	255	56	Ø	0	0	988
	0	ø	35	213	460	390	86	60	0	0	1200
	0	4	36	222	578	420	02	7	0	0	1337
	-	10	45	234	529	321	63	S	0	0	1208
	0	ŝ	32	184	381	220	42	ო	0	0	867
	0	0	19	57	165	162	48	9	-	0	458
	2	'n	თ	64	162	111	25	2	0	0	380
	+	9	20	99	86	78	18	e	0	0	285
	0	+	-	32	66	62	15	7	0	0	212
	0	0	e	13	55	40	11	-	0	0	123
	26	120	633	2816	6238	4347	925	97	4	4	15210
95th Percentile : 61 MPH											
Mean Speed(Average) 54 MPH 10 MPH Pace Speed 51-60 MPH Number in Pace 69,6% Percent in Pace 69,6% Number of Vehicles > 55 MPH 5374											
	00000000000000000000000000000000000000	00000000000000000000000000000000000000	30 30 30 30 30 51 50 53 53 53 53 53 53 53 53 53 53	30 30 30 30 30 35 54 30 55 55 55 55 55 55 55 55 55 5	30       35       40         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0         0       0       0       0       0         1       0       0       0       0         1       0       0       0       0         1       0       0       0       0         1       0       0       0       0         1       0       0       0       0       0         1       0       0       0       0       0       0         1       0       0       0       0       0       0       0         1       0       0       0       0       0       0       0       0       0         1       0	30         35         40         45           0         0         0         0         0         0           0         0         0         0         0         0         0           0         0         0         1         0         0         0         0           0         0         1         1         1         1         0         0         0           0         0         1         1         1         1         1         0 <td>30         35         40         45         50           0         0         0         0         0         0         1         0         0           0         0         0         0         0         0         0         0         1         0         0         1         0</td> <td>30         35         40         45         50         55           0         0         0         0         0         1         22           0         0         0         0         1         4         1         22           0         0         1         1         2         2         3         5         5           0         0         1         1         2         2         2         3         5         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         &lt;</td> <td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td> <td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td> <td>30         35         40         45         50         55         60         65         70           0         1         0         0         1         5         50         65         70           0         1         &lt;</td>	30         35         40         45         50           0         0         0         0         0         0         1         0         0           0         0         0         0         0         0         0         0         1         0         0         1         0	30         35         40         45         50         55           0         0         0         0         0         1         22           0         0         0         0         1         4         1         22           0         0         1         1         2         2         3         5         5           0         0         1         1         2         2         2         3         5         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         3         5         <	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	30         35         40         45         50         55         60         65         70           0         1         0         0         1         5         50         65         70           0         1         <

Time															
Time	-	16	21	26	31	36	41	46	51	56	61	99	71	76	
	15	20	25	30	35	40	45	50	55	60	65	70	75	666	Total
03/08/19	0	0	0	0	0	0	9	12	8	19	2	0	0	0	69
01:00	0	0	0	0	0	0	Ļ	80	20	12	0				40
02:00	0	0	0	0	0	0	0	6	12		n no			. c	196
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04:00	0	0	0	0	0	*-	ę	27	51	23	23	- ac			167
05:00	0	0	0	0	0	4	11	47	205	138	39	~	• •		101
00:90	0	0	0	-	2	5	30	207	437	249	99	i m	10	- 0	
00:20	0	0	0	0	4	4	52	261	575	347	12	2	10	c	1327
08:00	0	0	0	0	4	9	32	168	456	325	46	9	0	0	1043
00:60	0	0	0	0	0	10	39	145	312	267	57	2	-	0	833
10:00	0	0	0	0	0	7	28	136	347	205	53	5	*-	0	782
11:00	0	0		0	0	12	ह	155	330	268	65	4	-		871
MH ZI	0	0	0	0	ო	14	62	186	357	237	43	-	0	0	803
13:00	0	0	0	0	0	12	37	209	424	284	55	11	-	0	1033
14:00	0	0	0	0	-	4	46	177	495	343	53	9	-	0	1126
15:00	D	0	0	0	0	9	40	211	542	419	89	13	-	0	1321
16:00	0 0	0 0	0	0	-	13	28	193	550	462	106	5	0	0	1358
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18:00	5 0	0 0	0 1	0	-	9	31	178	399	231	49	ო	0		868
19:00	5		0	0	0	2	33	89	219	139	49	4	0	0	540
20:02	5 0	0 0	0 (	0	0	-	10	45	132	146	40	4	0	0	378
20.00		5		0	-	2	20	ន	130	8	30	4	0	0	334
00.22	2	0	0	0	0	0	9	56	92	81	17	e	0	0	255
23:00		0	0	0	-	-	2	98	62	49	14	4	0	0	169
lotal	0	0	F	-	19	124	599	2800	6742	4781	1075	104	12	4	16262
Daily		15th 50th 85th	15th Percentile 50th Percentile 85th Percentile	48 MPH 53 MPH 58 MPH											
		LIICA	rercentile	HYM LO											
	Ĩ N Z	Mean Speed(Average) 10 MPH Pace Speed Number in Pace Percent in Pace Number of Vehicles > 55 MPH	Speed(Average) IPH Pace Speed : Number in Pace Percent in Pace nicles > 55 MPH :	54 MPH 51-60 MPH 11523 70.9% 5976											

Page 8

Accurate Counts 978-664-2565

Location : Route 125 Location : South of Scruton Pond Road	125 of Scruton I	Pond Road					978-664-2565	565							
City/State: Barrington, NH SB. NB	gton, NH														8188SPD1
Start	-	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	666	Total
03/09/19	0	0	0	0	0	0	F	13	44	29	7	0	-	0	95
01:00	0	0	0	0	0	-	-	80	21	10	4	0	0	0	45
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00.00	00			0 0		- •	- 0	2 9	2,2	2 9	1 0	- 0	0 0	0 0	48
05:00	00	0	0	0	0	- 0	4	10	65	67	11	V 0	v <del>.</del>		151
00:00	0	0	0	0	-	. –	· m	23	8 8	136	3	<b>,</b>	- m	0	320
00:20	0	0	0	-	-	w	9	50	122	193	62	, t	00	0	475
08:00	0	0	0	0	0	9	22	73	215	255	12	9	0	00	648
00:60	0	0	0	0	-	11	34	114	347	274	58	œ	0	0	847
10:00	0 0	0 0	0	0	5	2 2	35	119	332	318	71	თ	-	0	892
11:00 MG C1	00	0 0	0 0	0 0	0 0	9	28	210	478	271	57	o 1	0	0	1071
13-00			- c		•	- •	2	140	425	330	85 i	<b>ത</b> (	0 0	0	1017
14:00					- 0		5	188	403	291	47	סי	••	0 0	973
15:00						4 u	10	130	000	302	6	ດເ			883
16:00	00	0	0			04	52	143	405 376	303	04	n f		- •	988
17:00	0	0	0	0		- 40	200	118	378	321	200	2 0	- c	- c	200
18:00	0	0	0	0	0	2	24	164	331	201	31		4 0		764
19:00	0	0	0	0	7	-	36	110	178	148	24	4	0		503
20:00	0	0	0	0	1	4	თ	75	147	84	19	2	0	0	341
21:00	0 0	0	0	0	0	-	6	2	152	103	22	S	0	0	356
22:00	0 0	0 0	0 0	0 0	0	- (	6	52	83	ខ្ល	17	0	-@	0	223
Total	0	00	c	o e	- 12	85	383	2020	5069	4116	e are	123	17	0 0	157
								-			222	124	-	4	11071
Daily		15.1	15th Percentile	48 MPH	Hdi										
		200	85th Percentile		НО										
		90 90	95th Percentile	62 MPH	Hd										
		Mean Spe	Mean Speed(Average) :	54 MPH	HdI										
		10 MPH	10 MPH Pace Speed	51-60 MPH	Hdi										
		Per	Percent in Pace	- <sup>4</sup>	9185 74 74										
	NU	Number of Vehicles > 55 MPH	s > 55 MPH	- 10	5246										
	å	Percent of Vehicles > 55	ss > 55 MPH	40.	40.9%										
Grand Total	0	0	2	G	57	329	1615	7636	18049	13244	2988	324	33	7	44289
Overall		15 50 85 95	15th Percentile 50th Percentile 85th Percentile 95th Percentile	48 MPH 53 MPH 58 MPH 61 MPH	H H H H H H										
	N	Mean Speed(Average) 10 MPH Pace Speed Number in Pace Percent in Pace Number of Vehicles > 55 MPH	Mean Speed(Average) 10 MPH Pace Speed Number in Pace Percent in Pace of Vehicles > 55 MPH	54 MPH 51-60 MPH 31293 70.7% 16596	4 MPH 3 MPH 70.7% 16596										
	ፈ	ercent of Vehicle	s > 55 MPH	37	37,5%										

Page 9

Accurate Counts 978-664-2565 BARRINGTON POLICE DEPARTMENT SAFETY ASSESSMENT



## BARRINGTON POLICE DEPARTMENT 774 FRANKLIN PIERCE HIGHWAY BARRINGTON, NH 03825



Chief Robert Williams Emergency Dial 911 Phone (603) 664-7679 Fax (603) 664-5024

October 15, 2018

## **Barrington Road Safety Audit**

### Findings After Review of Crash Data

The Town of Barrington is approximately 48.5 square miles in size (land) and has over 125 miles of road. Most of the roadways are winding and are not equipped with street lights. This contributes to the number of crashes that occur within the town each year as well as the sheer volume of cars and trucks on the roadways every day.

Over the past ten years (2008-2017), the Barrington Police Department has covered 1640 crashes within our jurisdiction. Of those crashes, 336 resulted in non-capacitating injury, 39 resulted in serious bodily injury, and 12 resulted in fatalities. In total, the Department covers an average of 164 crashes each year and the numbers continue to increase each year.

Due to the large majority of crashes that are recorded, the focus was placed on roadways that accounted for most crashes. After review, the top three roadways for crashes include:

- Calef Highway (State Route 125) Average of 42 crashes per year
- Franklin Pierce Highway (State Route 9) Average of 44 crashes per year
- Washington Street (State Route 202) Average of 16 crashes per year

The number of crashes on these roadways account for an average of 62% of the total crashes reported for the year in the Town.

Focusing on the top three roadways with the highest instance of crashes, we then reviewed the areas with the highest number of crashes. The top five areas with the highest number of crashes occur at intersections with Calef Highway (total crashes 2008-2017):

Calef Highway at Franklin Pierce Highway – 76 Total Crashes

- Calef Highway at Newtown Plains Road 39 Total Crashes
- Calef Highway at Beauty Hill Road 20 Total Crashes
- Calef Highway at Mallego Road 22 Total Crashes
- Calef Highway at Scruton Pond Road 13 Total Crashes

Calef Highway (Route 125) is currently the most heavily traveled road in the town, in 2014 the average traffic volume recorded for the roadway was 16683 vehicles per day. The speed limit on Calef Highway where most of the intersections are located is 50 MPH, except for Calef Highway at Franklin Pierce, which is a post 35 MPH zone. Calef Highway is a major thoroughfare for people traveling within the state, including junctions with Routes 101 in Epping and the Spaulding Turnpike in Rochester.

The crashes at the above listed intersections were then reviewed for any involving serious bodily injury and/or death (2008-2017).

- Calef Highway at Franklin Pierce O Instances
- Calef Highway at Newtown Plains Road 2 Instances
- Calef Highway at Beauty Hill Road 5 Instances
- Calef Highway at Mallego Road 2 Instances
- Calef Highway at Scruton Pond Road 4 Instances (1 Fatal)

According to the data available on the NH DOT webpage, the intersection of Calef Highway and Franklin Pierce Highway was updated with traffic lights in the 1960's and was converted to the current traffic pattern in the 1970's. The addition of the traffic lights has completely reduced the number of crashes involving serious bodily injury/fatalities at that intersection. Though it is the intersection with the highest number of crashes per year, the last ten years of data show that none have been serious.

2)

#### Conclusion

The intersections of concern to the department is Calef Highway at Beauty Hill Road, and Calef Highway at Scruton Pond Road. Beauty Hill Road is located in a long flat section of Calef Highway where we encounter vehicles going well over the posted speed limit. There is also a considerable amount of traffic that comes off Beauty Hill Road and during peak hours, this can be very dangerous for motorists trying to enter Calef Highway. Scruton Pond Road intersects Calef Highway at a low point in the roadway. Both north and south bound traffic on Calef Highway are going downhill as they approach the intersection of Scruton Pond Road. The north bound traffic is also coming around a corner. The location of the road and speed of vehicles in the area has a significant effect on the number of crashes in that area.

#### Data Source

All of the information was compiled using our in-house record system (IMC), which was the primary record system for the department until 2015, and our Strafford County records (also IMC) which has been our record system since 2015. Years 2008-2017 were used to provide a 10-year account of crash history.

At this time, I recommend that the information be provided to Colin at the Strafford Regional Planning Commission for further review.

Sincerely

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Hann POBM

Sgt. Kathleen P. O'Brien

	Total Acc	cidents In Barringto	on 2008-20	17
Year	Total Accidents	Acc w/ Non-Inc. Inj.	Acc. w/SBI	Acc. w/Fatalities
2008	152	23	3	1
2009	163	34	8	1
2010	151	29	0	2
2011	154	30	6	0
2012	164	30	4	1
2013	179	39	6	2
2014	164	35	2	2
2015	160	28	0	1
2016	177	43	5	2
2017	176	45	5	0
Total	1640	336	39	12
Average	164	34	4	1

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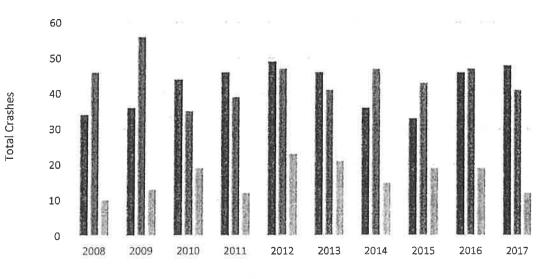
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# **Roads with Highest Crash Instances**

		-	<b>Fraffi</b>	c Cras	sh Da	ta					
			Top 3	Crash	Road	ls					
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average
Calef Highway	34	36	44	46	49	46	36	33	46	48	42
Franklin Pierce	46	56	35	39	47	41	47	43	47	41	44
Washington St.	10	13	19	12	23	21	15	19	19	12	16
Totals	90	105	98	97	119	108	98	95	112	101	102
Percent of All Crashes	59%	64%	65%	63%	73%	60%	60%	59%	63%	57%	62%

Roads w/Highest Crash Instances

**Total of All Crashes** 



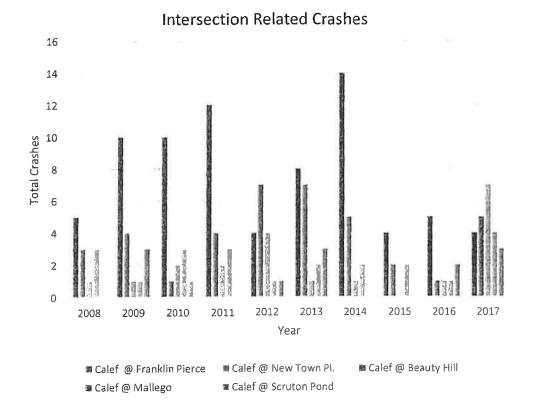
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🛋 Calef Highway 🛛 🛤 Franklin Pierce

Washington St.

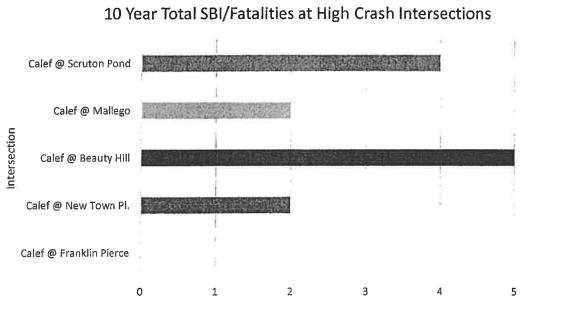
Hig	nest Ir	nterse	ection	n Rela	ated (	Crash	es			
	(Includ	es Tot	al Cras	hes fo	r the Y	'ear)		-		
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Calef @ Franklin Pierce	5	10	10	12	4	8	14	4	5	4
Calef @ New Town Pl.	3	4	1	4	7	7	5	2	1	5
Calef @ Beauty Hill	1	1	2	2	4	1	1	0	1	7
Calef @ Mallego	3	1	3	3	1	2	2	2	1	4
Calef @ Scruton Pond	0	3	1	0	1	3	0	0	2	3
Total	12	16	16	21	16	18	22	8	8	20

# **Intersection Related Crashes**



# Intersection Crash Data - SBI and Fatalities

Total Interse	ection	Rela	ted C	rash	es w/	'SBI 8	k Fata	lities	Over To	en Yeai	ſS
(Utilizir	ng Inter	section	ns/Are	a's wit	h High	est Nu	mber	of Tota	l Acciden	ts)	
Road	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Totals
Calef @ Franklin Pierce	0	0	0	0	0	0	0	0	0	0	0
Calef @ New Town Pl.	0	0	0	0	1	0	1	0	0	0	2
Calef @ Beauty Hill	0	1	0	2	0	1	0	0	0	1	5
Calef @ Mallego	0	1	0	0	0	0	0	0	1	0	2
Calef @ Scruton Pond	0	0	1	0	1	1	0	0	1	0	4



Number of Crashes

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		SBI/Fata	l Crash List 2008-2017	
Accident Number	Accident Date	Time	Location	In
08BAR-58-AC	5/16/2008	9:42 PM	Route 125 S of Deer Ridge Road	SB
08BAR-60-AC	5/24/2008	3:47 PM	Frankline Pierce, East of Stonehouse Pond	SE
08BAR-71-AC	6/30/2008	1:26 PM	Greenhill @ # 147	SE
08BAR-81-AC	8/4/2008	2:30 AM	Franklin Pierce Hwy @ Estate Drive	Fa
09BAR-30-AC	3/2/2009	2:08 PM	Franklin Pierce Highway @ Kelly Ln.	SE
09BAR-57-AC	4/24/2009	10:15 PM	Tolend Road @ Greenhill Road	SE
09BAR-66-AC	5/20/2009	4:39 PM	Franklin Pierce Highway @ Washington	SE
09BAR-72-AC	6/1/2009	4:48 PM	Tolend Road @ Carr Dr.	SE
09BAR-84-AC	7/15/2009	5:00 PM	Calef Hwy @ Beauty Hill Road	SE
09BAR-101-AC	9/3/2009	7:15 AM	Calef Hwy @ Province Road	SE
09BAR-114-AC	9/28/2009	7:00 AM	Franklin Pierce Hwy @ Haley Dr.	SE
09BAR-116-AC	10/6/2009	7:59 AM	Old Concord Tnpk. 2500 ft. East of Meadowbrook	SE
09BAR-142-AC	12/4/2009	5:06 PM	Franklin Pierce Hwy. 200 ft. West Kelly Ln.	Fa
10BAR-106-AC	10/3/2010	4:17 AM	Washington St. West of Mahala Way.	Fa
10BAR-111-AC	10/18/2010	2:52 PM	Calef Highway 500 Ft. South Scrouton Pond Rd.	Fa
11BAR-37-AC	3/17/2011	8:39 AM	Washington St. 1 mi. South of Pond Hill Rd.	SB
11BAR-50-AC	5/2/2011	5:00 AM	Old Concord Tnpk. @ Truck Lanes	SE
11BAR-51-AC	5/11/2011	5:05 PM	Calef Hwy. @ Beauty Hill Road	SB
11BAR-63-AC	6/12/2011	7:16 AM	Franklin Pierce Highway @ Hearthside Dr.	SE
11BAR-96-AC	8/14/2011	11:25 AM	Calef Highway @ Beauty Hill Rd.	SE
11BAR-123-AC	10/30/2011	10:39 PM	Tolend @ Pumpkin Hollow	SE
12BAR-18-AC	1/25/2012	2:16 PM	Old Concord Tnpk. 200 ft. West of Glass Ln.	SB
12BAR-27-AC	2/8/2012	5:58 PM	Franklin Pierce @ Mallego Rd.	SB
12BAR-56-AC	5/15/2012	2:39 PM	Franklin Pierce Hwy. East of Swain Rd.	Fa
12BAR-95-AC	8/11/2012	4:21 PM	Calef Highway @ Newtown Plains Road	SE
12BAR-113-AC	10/2/2012	2:13 PM	Calef Highway South of Scruton Pond	SB
13BAR-69-AC	5/29/2013	11:02 AM	Franklin Pierce @ #2143	SB
13BAR-80-AC	6/14/2013	6:54 AM	Calef Highway @ Winkley Pond Rd.	SB
13BAR-81-AC	6/18/2013	10:52 AM	Old Concord Tnpk. 1500 ft. E. Warren Rd.	SB
13BAR-110-AC	9/11/2013	5:08 PM	Spring Dr. @ Washington St.	SB
13BAR-120-AC	9/25/2013	6:07 PM	Franklin Pierce Hwy. 100 ft. W. Ramsdell Ln.	SB
13BAR-134-AC	10/15/2013	3:49 PM	Canaan Back Road (OHRV)	Fa
13BAR-135-AC	10/16/2013	11:32 PM	Calef Highway 200 ft. S. Scruton Pond Rd.	SB
13BAR-143-AC	10/31/2013	10:37 PM	Frankline Pierce 500 ft. East Cooper Rd	Fa
14BAR-97-AC	8/23/2014	5:34 AM	Franklin Pierce Hwy. @ # 1738	Fa
14BAR-102-AC	8/31/2014	7:28 PM	Calef Hwy. @ Newtown Plains	SB
14BAR-126-AC	10/26/2014	10:00 AM	Franklin Pierce @ Calef Hwy.	SB
14BAR-165-AC	12/26/2014	3:52 PM	Tolend Road 200 ft. West of Substitute Rd.	Fa
15BAR-133-AC	11/1/2015	4:10 PM	Franklin Pierce @ Garnett Dr.	Fa
16BAR-25-AC	2/2/2016	9:09 AM	Calef Hwy @ Barnz's Cinema	SB
16BAR-47-AC	3/12/2016	10:47 AM	Old Concord Tnpk. @ # 287	SB
16BAR-49-AC	3/21/2016	11:42 AM	Calef Highway @ Pierce Road	Fa
16BAR-54-AC	4/14/2016	7:42 PM	Calef Highway @ Province	SB
16BAR-55-AC	4/14/2016	5:41 PM	Calef Highway @ Scrouton Pond Road	SB

		SBI/Fatal	Crash List 2008-2017	
Accident Number	Accident Date	Time	Location	Injury
16BAR-111-AC	8/15/2016	4:50 AM	Calef Highway @ Greenhill Road	SBI
16BAR-167-AC	12/16/2016	5:11 AM	Franklin Pierce @ Estate Drive	Fatal
17BAR-5-AC	1/10/2017	12:18 PM	Greenhill Road 1500 ft. West Calef Hwy.	SBI
17BAR-13-AC	1/20/2017	8:20 AM	Calef Highway @ Beauty Hill Rd.	SBI
17BAR-32-AC	2/16/2017	12:34 PM	Franklin Pierce Hwy. @ Madbury Line	SBI
17BAR-76-AC	6/12/2017	5:02 PM	Scrouton Pond @ Coachman Dr.	SBI
17BAR-125-AC	10/23/2017	7:56 AM	Calef Hwy. North of Century Pines	SBI
17BAR-132-AC	11/1/2017	7:31 AM	Calef Hwy 1000 ft. North Pierce Road	SBI

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ATION		8 PM	650	814	702	846	PERCENT GAIN	
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STATE OF NEW HAMPSHIRE, DEPARTMENT RANSPORTATION - BUREAU OF TRAFFIC IN COOPERATION WITH U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION AUTOMATIC TRAFFIC RECORDER DATA FOR THE MONTH OF JUNE 2005		12 AM 1 AM 2 AM 3 AM 4 AM 5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM 8 PM 9 PM 10 PM 11 PM Total		927		ក្តាត			AN	M
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STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION - BUREAU OF TRAFFIC IN COOPERATION WITH U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION AUTOMATIC TRAFFIC RECORDER DATA FOR THE MONTH OF JULY 2005		. MH O	470	502	436	355	PERCENT LOSS		AM - 6 AM TO 10 AM MIDDAY - 10 AM TO 2 PM PM - 2 PM TO 8 PM	PM					
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### STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DESIGN

#### **CONFERENCE REPORT**

PROJECT: BARRINGTON X-A001(181) 16201 NH 125/Tolend Rd/Greenhill Rd Intersection Safety Improvements (HSIP)

DATE OF CONFERENCE: March 1, 2012

LOCATION OF CONFERENCE: Early Childhood Learning Center, Barrington

ATTENDED BY: <u>NHDOT</u> Bill Oldenburg John Butler Doug DePorter <u>OTHERS</u> See attached sign-in sheet.

SUBJECT: Public Officials/Public Informational Meeting

#### **NOTES ON CONFERENCE:**

Bill Oldenburg introduced this intersection safety improvement project at the intersection of NH Route 125 / Tolend Road / Greenhill Road. He explained that the intersection had been identified for improvements through the work of the Highway Safety Improvement Program (HSIP). The current Federal highway funding law, known by its acronym of SAFETEA-LU, created the Highway Safety Improvement Program to identify highway safety issues and provide for modest safety improvements that would achieve a significant reduction in traffic fatalities and serious injury accidents. New Hampshire receives \$5.5 million per year to implement modest safety improvements in locations where crash data indicates safety deficiencies. Crash data available for the intersection showed that there were 21 accidents between 2002 to 2009, including 1 fatal accident and 9 severe injury accidents.

In March of 2011 the Department met with the Board of Selectmen to get an understanding of the perceived deficiencies at the intersection, and to gain their support to investigate possible solutions to improve safety. Based on that input and an engineering study by the Department, a conceptual plan for improvements has been developed. Several important

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issues were considered as the designs were developed, including safety, efficient operation, property impacts, historic resources, and natural resources.

John Butler described the existing intersection conditions and the conceptual plan for improvements. NH 125 through the intersection area has two 12' wide travel lanes, 10' wide paved shoulders, and a 150' wide controlled access right-of-way. The posted speed limit on NH 125 is 50 mph. Environmental issues include some small pockets of wetlands scattered throughout the project area and a potentially historic house in one quadrant of the intersection. Current average daily traffic volumes are approximately 14,600 vehicles on NH 125, 2100 vehicles on Greenhill Road, and 1100 vehicles on Tolend Road.

In 2008, the Strafford Regional Planning Commission completed a NH Route 125 corridor study, which recommended signalizing the NH 125/Tolend Rd/Greenhill Rd intersection and widening NH 125 to have two through lanes in each direction for long-term capacity needs. Concerns expressed by town officials and the public at the March 2011 meeting included the difficulty of safely pulling out of the two side roads and the speed of traffic on NH 125. The predominant recommendation at that meeting was to signalize the intersection.

Traffic data was collected at the intersection and an engineering analysis was done to determine if signalization is justified at the intersection. Based on that analysis, it was determined that signals are warranted, therefore, signalization of the intersection is proposed. The proposed design also calls for separate left turn and right turn lanes on NH 125 in both the northbound and southbound directions. Constructing the turning lanes will require widening NH 125 by approximately 10° in two areas. No impacts to private property or environmental resources are anticipated. The construction cost is estimated to be \$625,000.

Bill Oldenburg noted that an environmental document will be prepared for the project which will describe all known environmental resources in the project area, and the anticipated impacts to those resources. Bill noted that owners of historic properties directly affected by the project or agencies that possess a direct interest in historical resources can become more involved in an advisory role during project development by becoming a "Consulting Party" to the Section 106 process. He also noted that several areas of invasive (non-native) plans have been identified in the project area, and measures will be taken to ensure that these plants are not spread by the construction activities.

Bill noted that funding for the project will be a combination of State and Federal funds. No Town funds are anticipated to be required. If the proposal is well received at tonight's meeting, the project could possibly be advertised for construction this coming winter, with construction in 2013.

#### Discussion:

The fire chief requested that the new signals be equipped with Opticom for emergency vehicles and with a generator transfer switch so that the signals could be run off a portable generator if the power goes out. He noted that the Town might be able to provide a generator in the event of a power outage.

It was asked if the signals would operate in flashing mode during non-peak traffic times, and if there would be traffic sensors in the pavement. Bill Oldenburg responded that the signals will be fully actuated with sensors in the pavement, but they will not be put on flash mode during non-peak traffic.

It was recommended that lighting be provided at the intersection. Bill Oldenburg responded that lighting will be considered, but in general the Department has been reducing the number of active street lights statewide as a cost savings measure.

It was noted that speeding on NH 125 is a significant issue, and that turning left from NH 125 is uncomfortable due to the fear of being rear-ended. It was asked if the speed limit on NH 125 would be reduced. Bill Oldenburg responded that the speed limit is likely to be reduced through the intersection area, but is unknown at this time what the reduced speed limit will be, and where the exact limits of the reduction will be.

It was noted that truck traffic on NH 125 is significant. In particular there has been an increase in Waste Management trucks heading north to a facility in Rochester.

It was recommended that signing could be improved on Tolend Road and Greenhill Road to alert drivers of the upcoming intersection.

Submitted by:

John D. Butler, PE Preliminary Design Supervisor

cc: W. Cass W. Oldenburg W. Lambert Barrington Selectmen D. DePorter C. Perron M. Dugas

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MEETING SIGN-UP SHEET Barrington - NH 125/Greenhill Rd / Tolend Rd. Public Officials / Public Info. meeting, Early Childhood Learning Center, PROJECT LOCATION Barrington X-AØØ#(181 16201 PROJECT NO. Federal State Name Comments Agency Drane Brochu Brian's Arching about time 1 NRIAU DRUCHU Buin's ARCHER Highenial Society DUANE KIMBALL RESIDENT Wayne Brutorre RESIDENT RESIDENT Resident / Fire chief about tenn / Resident / Fire chief DARYL LANDRY ULNIKE EMMERLING Sugar & TC RESIDENT/LANDRY'S AVTO HARYL LANDRY ULNIKE EMMERLING Sugar & TC RESIDENT/LANDRY'S AVTO

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July 25, 2012

## STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DESIGN

#### CONFERENCE REPORT

PROJECT: BARRINGTON X-A001(173) 16178 US 202 / NH 9 Intersection Safety Improvements (HSIP)

DATE OF CONFERENCE: July 18, 2012

LOCATION OF CONFERENCE: Early Childhood Learning Center, Barrington

**ATTENDED BY:** 

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PUBLIC HEARING COMMISSION

Richard Adams, Chairperson William Gregsak Thomas Tatarczuch

#### **NHDOT**

Bill Oldenburg Vic John Butler Ch

Victoria Chase Christine Perron

#### **OTHERS**

See attached sign-in sheet.

#### **SUBJECT:** Public Hearing

#### **NOTES ON CONFERENCE:**

A public hearing was held for the above-noted project on July 18, 2012. A transcript of the hearing is available in the Bureau of Right-of-Way. The following is a summary of the questions and comments made at the hearing, and the Department's response to those comments.

- 1. John Scruton, Barrington Town Administrator, voiced his support for the project. He noted that his preference would be to have the left turn lane included in the design, but understood that it would require significant additional cost.
- 2. John Allard, Barrington resident, expressed the following comments and questions:

- a. He expressed his preference for the alternative design that makes US Route 202 the free-flow movement. He is concerned with the speed of traffic on the westbound NH 9 approach coming down the hill, and felt that making them stop at the intersection would be a way to control their speed.
- b. He asked if the bypass shoulder was designed to accommodate tractor trailers.
- c. He wanted to know how much additional property would be required from Parcel #2 with the left turn lane alternative.

#### Response:

- a. The Department has considered all the issues associated with the US 202 freeflow alternative and with the left turn lane alternative, and feels that the proposed design presented at the public hearing provides the most cost-effective solution while considering the issues of safety, efficient operations, property impacts, and impacts to cultural and natural resources.
- b. The bypass shoulder will accommodate tractor trailers going around a vehicle that is stopped to make a left hand turn.
- c. There is only a small amount of additional property required from Parcel #2 with the left turn lane alternative as compared to the proposed design, however, there are also impacts to three additional properties that are not impacted by the proposed design.
- 3. Steve Young, Barrington resident, asked if traffic would be routed along Gooseneck Lane during construction.

<u>Response</u>: US 202 and NH 9 traffic will not be detoured along any local roads, including Gooseneck Lane, during construction.

4. Terri Frank, Barrington resident, requested that measures be taken to reduce traffic speed along US 202 and NH 9. She suggested additional signage.

<u>Response:</u> The project area will be reviewed by the Bureau of Traffic to insure that appropriate signage is provided on the approaches to the intersection.

Submitted by:

John D. Butler, PE Preliminary Design Supervisor

ATTACHMENTS: Chairperson Preliminary Statement Project Manager Statement Design Presentation Outline Right-of-Way Statement Environment Statement Meeting Sign-in Sheet

### NOTED BY: W. Oldenburg

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cc: W. Cass D. DePorter W. Oldenburg C. Perron W. Lambert M. Dugas V. Chase

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#### PRELIMINARY STATEMENT

#### BY

#### **RICHARD ADAMS, CHAIR**

#### **BARRINGTON 16178**

THIS MEETING IS CALLED TO ORDER. I AM RICHARD ADAMS, CHAIR OF THIS COMMISSION APPOINTED BY THE GOVERNOR AND EXECUTIVE COUNCIL. WILLIAM GREGSAK AND THOMAS TATARCZUCH ARE ALSO MEMBERS OF THIS COMMISSION.

THIS HEARING IS CONCERNED WITH THE RECONSTRUCTION OF US 202 AND NH 9 TO IMPROVE SAFETY. IT IS PURSUANT TO RSA 230:14, AND THE SURFACE TRANSPORTATION AND UNIFORM RELOCATION ASSISTANCE ACT OF 1987.

THE PURPOSE OF THIS HEARING IS TO DETERMINE THE NECESSITY OF THE OCCASION OF THE LAYOUT AND TO HEAR EVIDENCE OF THE ECONOMIC AND SOCIAL EFFECTS OF SUCH A LOCATION, ITS IMPACT ON THE ENVIRONMENT, AND ITS CONSISTENCY WITH THE GOALS AND OBJECTIVES OF SUCH LOCAL PLANNING AS HAS BEEN UNDERTAKEN BY THE TOWNS.

IMMEDIATELY FOLLOWING THE HEARING, THIS COMMISSION WILL EVALUATE ALL MATTERS BROUGHT TO OUR ATTENTION, AND MAKE DEFINITE DECISIONS RELATIVE TO THE LAYOUT. THE DEPARTMENT WILL CONTACT EACH OWNER WHOSE PROPERTY IS AFFECTED AND DISCUSS INDIVIDUAL CONCERNS. IT IS, THEREFORE, IMPORTANT THAT ALL INDIVIDUALS DESIRING TO MAKE REQUESTS OR SUGGESTIONS, DO SO TONIGHT. AT THIS TIME, I WILL ASK WILLIAM OLDENBURG, PROJECT MANAGER OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, TO PRESENT, IN A FORMAL MANNER, THE LAYOUT WHICH HE HAS PROPOSED. AFTER THIS, I WILL OPEN THE FLOOR TO THOSE WHO WISH TO ADDRESS THE COMMISSION. I WILL REQUEST THAT ALL DESIRING TO SPEAK SIGNIFY THEIR DESIRE AND UPON RECOGNITION BY ME, STEP TO THE MICROPHONE, STATE THEIR NAME AND ADDRESS, AND MAKE THEIR STATEMENTS. PLEASE PRINT YOUR NAME AND ADDRESS ON THE SIGN IN SHEET. THIS HEARING IS BEING RECORDED AND A TRANSCRIPT WILL LATER BE PREPARED.

WILLIAM OLDENBURG WILL NOW PRESENT THE LAYOUT.

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THANK YOU BILL

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BEFORE I OPEN THE HEARING FOR COMMENTS, CONCERNS OR QUESTIONS, I WOULD LIKE TO KNOW IF WE HAVE ANY ELECTED OFFICIALS WITH US THIS EVENING THAT WOULD LIKE TO BE HEARD?

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ANY TOWN OFFICIALS?

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I WILL NOW OPEN THE MEETING TO ANYONE DESIRING TO BE HEARD. AGAIN I WOULD ASK YOU TO RAISE YOUR HAND AND, UPON RECOGNITION BY ME, COME TO THE MICROPHONE, STATE YOUR NAME AND ADDRESS AND MAKE YOUR STATEMENTS. PLEASE BE SURE THAT YOU HAVE PRINTED YOUR NAME AND ADDRESS ON THE SIGN IN SHEET LOCATED ON THE PODIUM.

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THERE BEING NO INDICATION OF ANYONE REMAINING WHO DESIRES TO BE HEARD, THIS HEARING IS ADJOURNED. THE COMMISSION WILL TAKE A 15 MINUTE RECESS AND RECONVENE FOR A MEETING TO DISCUSS THE PROPOSED PROJECT. THIS MEETING IS A PUBLIC PROCEEDING UNDER RSA CHAPTER 91-A. THE INTENT OF THIS MEETING IS **NOT** TO CONTINUE TAKING TESTIMONY, BUT INSTEAD THE MEETING SERVES AS DECISION-MAKING FOR THE HEARING COMMISSION. THE PUBLIC MAY OBSERVE THE PROCEEDINGS. IF THE COMMISSION REQUIRES ADDITIONAL TIME TO CONSIDER THE TESTIMONY PRESENTED HERE TONIGHT, A FINDING OF NECESSITY MEETING HAS BEEN SCHEDULED FOR WEDNESDAY, AUGUST 1, 2012.

HEARING ADJOURNED AT \_\_\_\_\_

Barrington 16178 Public Hearing 7/18/12

Thank you Mr. Chairman, members of the Commission, ladies and gentlemen good evening. It is a pleasure this evening to present what the Department of Transportation proposes for improvements to the intersection of US 202 and NH 9 in the Town of Barrington. My name is Bill Oldenburg and I'm the Project Manager for this project. Tonight's meeting is a Public Hearing to present the Department's preferred alternative to improve the safety of the intersection, and to get public comment and testimony.

Before I get started, I'd like to introduce several of my colleagues from the Department who will be helping with tonight's presentation. On my right is Victoria Chase. She is the Right-of-Way Engineer and she will be providing a brief summary of the right-of-way process for the project. On her right, is Christine Perron and she is the Environmental Manager for the project and she will provide a brief overview of the environmental study that has been completed for the project. Also at the Board is John Butler. He is one of our senior Preliminary Design engineers and he will be presenting the plans this evening and discussing the detailed aspects of the design. I would also like to acknowledge our Right-of-Way folks that are doing the recording this evening Linda Smith and Don LaBelle and transcriptionist Deb Mekula. We will try to be succinct as possible on presenting all of the information, but anticipate our presentation will take about 30 minutes. And then Commission Chairman Adams will open it up for your comments.

As everyone is aware US 202 and NH 9 are major east-west highways for the state and service many communities within the region. This project serves to provide for safety upgrades of this intersection.

The project limits where US 202 and NH 9 are combined extend approximately 400 feet from the intersection west towards Northwood. US 202 extends approximately 300 feet north from the intersection towards Rochester and NH 9 extends approximately 400 feet from the intersection towards Barrington.

This intersection came to our attention thru work we had been doing on the Highway Safety Improvement Program. The HSIP was included in the last reauthorization of the Federal Highway Program and came about from concerns by the FHWA and other agencies involved in highway safety, about the number of fatalities that were occurring on our nations highways. They set a goal to reduce fatal and serious injury crashes and as part of that initiative they provided funding for modest safety improvements, which would achieve a significant reduction in fatalities and serious injury crashes. The State receives about \$6.5 million each year to be used at various identified locations around the State. This program is also intended to be data driven, and any location where we intend to utilize these funds has to have a crash history that demonstrates a need. Our crash statistics showed that during 2002 to 2009 there were 12 crashes at this intersection, including 1 fatality and 3 severe injury accidents. 66% of the crashes involved more than 1 vehicle.

The primary purpose and need for this project is to improve the safety of the intersection. In developing the project we looked at numerous options that improved safety but also attempted to limit the impacts to the abutters. In March 2011 the Department met with the Town's Selectboard to discuss the intersection improvements. Discussions of this intersection and the various alternatives that were studied were also presented at a public informational meeting in February 2012. Several important issues were considered in the design: safety, efficient operation, property impacts and historic and natural resources. Based upon

these issues, our studies and input from the public meetings, the design that is shown on the boards and will be presented tonight is the Department's preferred alternative.

The plans you see here tonight are preliminary plans. Much more engineering work will be required to get these to a point where we can identify exactly the right-of-way impacts and to develop plans that are suitable for construction. The plans will be developed in more detail to determine the drainage needs, utility relocations, final grading, and this typically takes place if we have a positive public hearing. Based on your input tonight there may be some modifications made to the plans. Tonight's meeting is a significant milestone in the project, where it transitions from the preliminary design phase to the final design and right-of-way procurement phase.

At this time I would like to ask John Butler to present the plans in more detail. John.....

Thank you John. As this project will involve acquisitions of property and easements and I'd like to ask Victoria Chase to talk about the right-of-way process. Victoria....

Thank you Victoria. As part of this project the Department must consider and document environmental impacts as a result of the project. At this time I would like to ask Christine Perron to provide a summary of the environmental study completed for the project. Christine....

Thank you Christine.

The Department will study all of the issues that are raised and make recommendations on how they should be addressed. These recommendations will be presented to the hearing commission at a public meeting. The hearing commission will then make a decision on the necessity for the project. If there are no substantive issues raised tonight that will change the design, or that cannot be readily addressed, the finding of necessity for this project will held tonight immediately following this hearing. An alternative date of August 1, 2012 has been scheduled for this meeting, if the commission cannot make their decision tonight. If there is a positive decision by the Commission the project will move to the final design phase and the right-of-way process will begin. Once all of the necessary approvals are done, permits and right-of-way procured, the project will advertise for construction, which we are anticipating for early 2014. This project will most likely take only 1 construction season to complete, ending in fall of 2014.

The project cost is estimated at roughly \$600,000. 100% of the cost of the project will be funded by Federal HSIP funds and State funds. As designed there are no Town funds anticipated for this project.

This concludes the Department's presentation. I'd like to thank all of you for your attentiveness and patience. I know we provided a lot of information fairly quickly. I would like to thank the Town staff

for their time and effort in assisting us in this project. At this time I would like to formally request Mr. Chairman that the Commission find occasion for the necessity for the layout of the project as presented this evening. Thank you for your consideration and attention.

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#### Barrington 16178 Public Hearing

### Existing Conditions

- plan orientation
- colors
- speed limits: 45 mph on US 202, 40 mph on NH 9
- describe existing intersection configuration
- traffic data: 2012 ADT: US 202/NH 9 = 7130 vehicles
  - US 202 = 4190 vehicles
  - NH 9 = 3180 vehicles
- environmental constraints:

#### cemetery – historic wetlands (prime)

- issues expressed at previous meetings
  - confusion over who has the ROW
  - poor sight distance

### Proposed Layout

- Consolidate US 202 SB into a single leg
- Widen shoulder on US 202/NH 9 EB for bypass shoulder
- Tree clearing to improve sight distance to and from intersection
- Property impacts:
  - 25' +/- strip acquisition from Parcel #2
    - multiple ownership
    - Two small drainage easements from Parcel # 1
    - Utility impacts: relocate 2 to 4 poles

### Other Alternatives

- Left Turn Lane
  - o significantly longer & more expensive
  - o more property impacts
  - o proposed layout addresses the major safety concerns
- US 202 as Free Flow
  - o suggested at Feb. Public Info meeting
  - o curve needs to be flattened
    - property impacts
    - more expensive
  - NH 9 WB coming down a steep grade to a STOP sign
  - o Operationally
    - Good: US 202 SB free flow
    - Bad: NH 9 WB heavy left turn must stop

NE quadrant - historic

### COMMISSION HEARING SPEECH FOR VICTORIA

BARRINGTON 16178

#### JULY 18, 2012

THANK YOU, BILL, CHAIRMAN ADAMS, MEMBERS OF THE COMMISSION, LADIES AND GENTLEMEN. BEFORE I GO INTO THE RIGHT-OF-WAY PROCEDURES FOR THIS PROJECT, THERE ARE A COUPLE OF THINGS I'D LIKE TO MENTION. WE HAVE WITH US TONIGHT A MAP SHOWING THE PROJECT AND A HANDOUT ENTITLED "YOUR LAND AND NEW HAMPSHIRE HIGHWAYS" WHICH DESCRIBES THE RIGHT-OF-WAY ACQUISITION AND RELOCATION ASSISTANCE PROCEDURES THAT ARE UTILIZED BY THE STATE. THESE ITEMS ARE MOST USEFUL FOR THOSE PROPERTY OWNERS AFFECTED BY THIS PROPOSED PROJECT. THESE ARE AVAILABLE FROM THE DEPARTMENT'S STAFF.

IF AFTER REVIEWING THE INFORMATION RECEIVED AT THIS HEARING, CHAIRMAN ADAMS AND THE COMMISSION FIND NECESSITY FOR THIS LAYOUT, SEVERAL THINGS WILL HAPPEN. FIRST, WITH APPROVAL TO PROCEED WITH THE DESIGN OF THIS PROJECT, APPRAISALS WILL BE PREPARED FOR EACH OF THE PROPERTIES AFFECTED BY THE PROPOSED CONSTRUCTION YOU SEE ON THE PLANS. THE APPRAISALS WILL DETERMINE THE FAIR MARKET VALUE OF THE PROPERTY RIGHTS NEEDED FOR THE NEW CONSTRUCTION.

THESE APPRAISALS ARE REVIEWED SEPARATELY TO SEE THAT ALL ARE ACCURATE AND HAVE TAKEN INTO ACCOUNT ALL APPLICABLE APPROACHES TO

11

VALUE. ONCE THIS REVIEW IS COMPLETE, THE DEPARTMENTS' APPRAISALS ARE GIVEN TO THE COMMISSION TO BEGIN DISCUSSIONS WITH THE PROPERTY OWNERS REGARDING THE ACQUISITION. THE VALUE IN THIS APPRAISAL WILL BE THE OFFER OF COMPENSATION USED BY THE COMMISSION.

THE COMMISSION WILL CONTACT EACH PROPERTY OWNER AND DISCUSS EACH ACQUISITION SEPARATELY. WE URGE OWNERS AT THAT TIME TO ASK QUESTIONS AND BRING UP CONCERNS THAT THEY FEEL SHOULD BE CONSIDERED. IF THE PROPERTY OWNER IS SATISFIED WITH THE OFFER, DEEDS ARE PREPARED AND OWNERSHIP IS TRANSFERRED TO THE STATE. IF THE OWNER IS NOT HAPPY WITH THE FIGURES THE COMMISSION OFFERS, THEY CAN APPEAL TO THE NEW HAMPSHIRE BOARD OF TAX AND LAND APPEALS AND ARGUE FOR ADDITIONAL COMPENSATION THERE. IT IS IMPORTANT YOU UNDERSTAND THAT THIS CAN BE DONE WITH OR WITHOUT AN ATTORNEY. EITHER PARTY CAN APPEAL THE BOARD'S DECISION TO THE SUPERIOR COURT IF THEY ARE UNSATISFIED.

ANY TIME AFTER THIS HEARING OR BEFORE DESIGN APPROVAL, ALL INFORMATION IN SUPPORT OF THIS HEARING IS AVAILABLE AT THE DEPARTMENT'S HEADQUARTERS IN CONCORD FOR YOUR INSPECTION AND COPYING.

THAT'S ALL I HAVE BILL. THANK YOU.

12

### BARRINGTON 16178 PUBLIC HEARING STATEMENT

Good evening, members of the commission, ladies and gentlemen.

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Pursuant to the National Environmental Policy Act, the Department has evaluated alternatives to the proposed project and the potential impacts this project will have on the surrounding social, economic, and natural environments. Coordination was established and input received from Federal and State environmental agencies, including the US Army Corps of Engineers, NH Department of Environmental Services, the State Historic Preservation Office, and town and regional officials. After evaluation of the information gathered, an environmental document was prepared. The following is a brief summary of the information contained in that document.

- 1) The proposed project will require work within areas under the jurisdiction of the DES Wetlands Bureau and the US Army Corps of Engineers. The total wetland impact is expected to be approximately 2,000 sq. ft and is associated with roadside drainage. There will be no impacts to the Hale Pond Prime Wetland or the Prime Wetland Buffer, which is defined by DES as 100 feet from the edge of the prime wetland. Anticipated impacts do not meet the State's mitigation thresholds. The Department will continue to coordinate with the appropriate agencies to ensure that all wetland impacts are minimized and all permits are secured prior to construction.
- 2) State regulations prohibit the spread of invasive plants listed on the NH Prohibited Species List. The project area contains Japanese barberry, Oriental bittersweet, and multiflora rose, all of which are prohibited invasive plants. Appropriate best management practices will be implemented to prevent construction activities from spreading existing invasive plants and introducing new plants into the project area.
- 3) Stone walls are located throughout the project area and were assessed according to the State of New Hampshire Roadside Stone Wall Reconstruction Policy. Approximately 100 linear feet of stone wall will be impacted by the Proposed Action along the south side of 202 & 9. Following coordination with the State Historic Preservation Office, it was agreed that this impacted stone wall would be reconstructed in-kind.

4) Pursuant to Section 106 of the National Historic Preservation Act, the NH Department of Transportation, in coordination with the Federal Highway Administration and State Historic Preservation Office, must take into account the impacts of the project on cultural resources. The project area has been evaluated and reviewed for historic properties and archeological sensitivity.

The land surrounding the intersection was part of the Thomas Wright Hale farm and house site from the early 1780s to the early 1920s. The house stood on the north side of the road just east of the intersection until it burned down in the early 1940s. The surviving house site is an un-filled cellar hole and foundation. There are stone walls throughout the property, and along the roads and property boundaries. Most interior walls are located on the land north and northeast of the house site where farm activity would have been concentrated. The Hale family cemetery is located west of the intersection on the north side of the road.

It was determined that the Proposed Action will not impact areas of the former Hale homestead that still retain a high potential for historic archaeological information. Therefore, the project-related impacts will have no effect on cultural resources under Section 106 of the National Historic Preservation Act.

A copy of the environmental document is available for anyone who wishes to review it after the hearing.

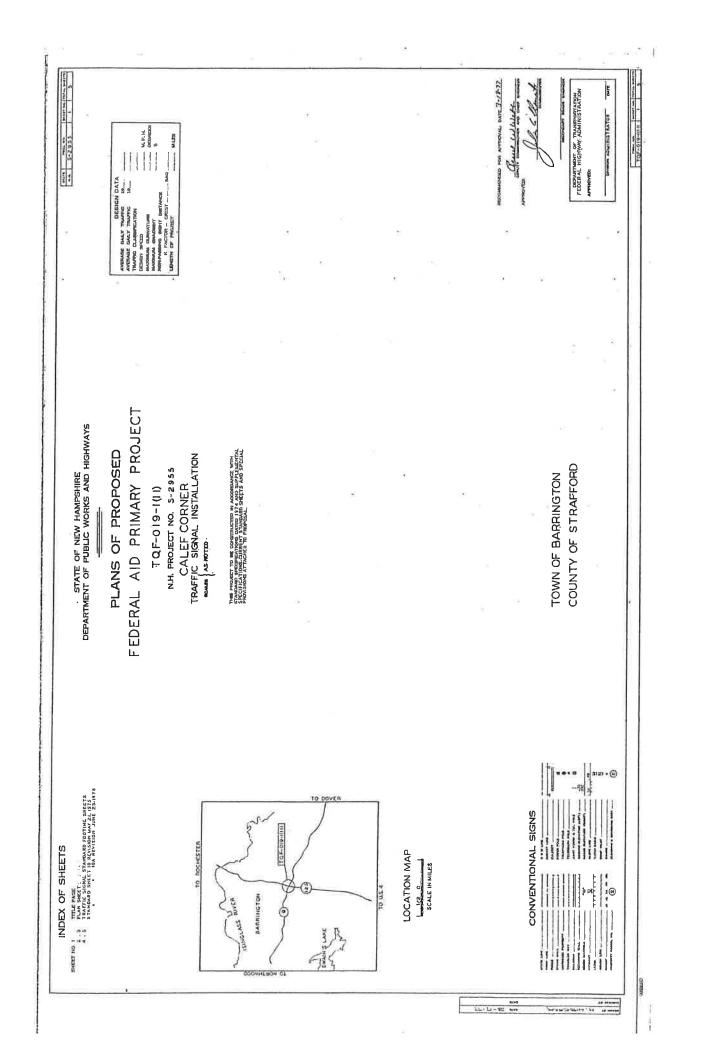
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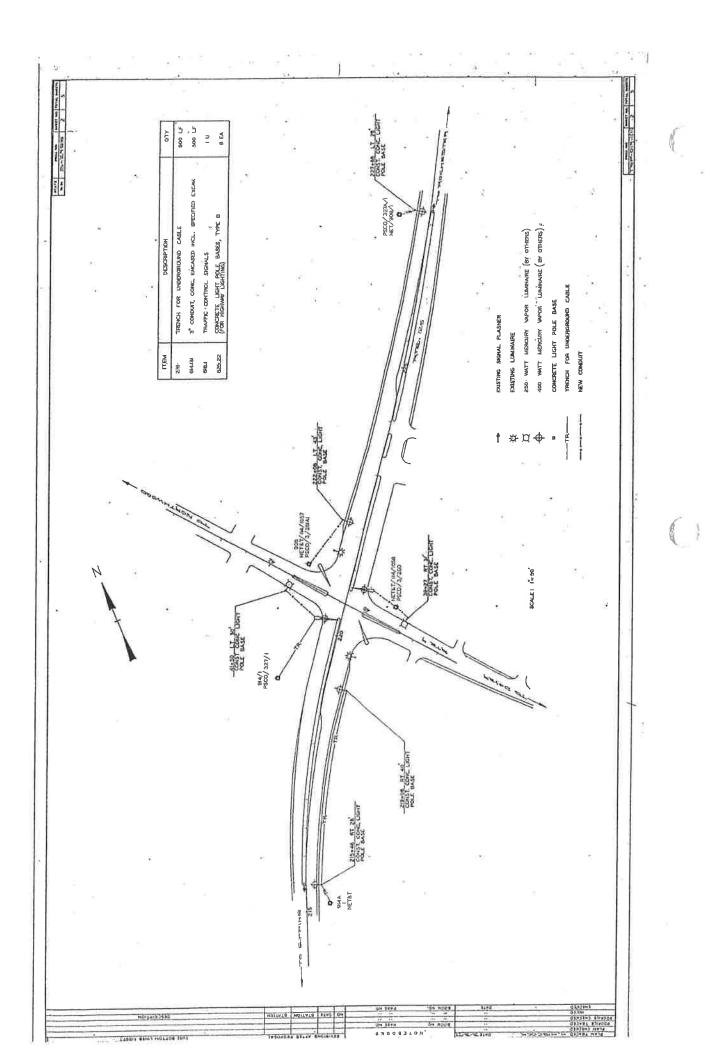
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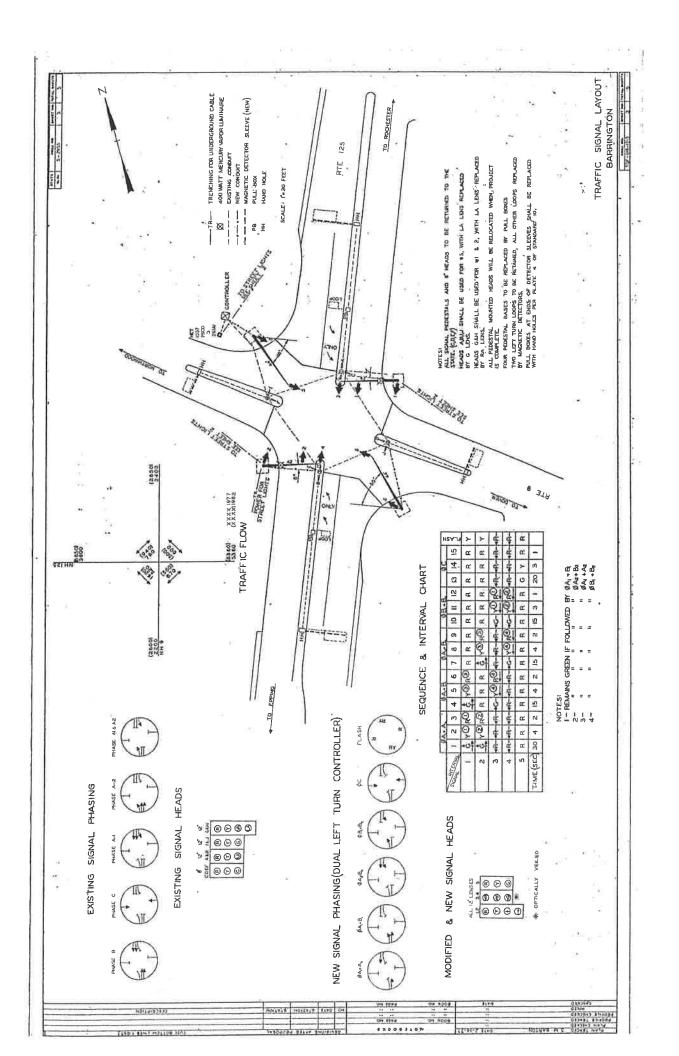
Barrington Finding of Necessity Meeting July 18, 2012 Early Childhood Learning Center, Barrington

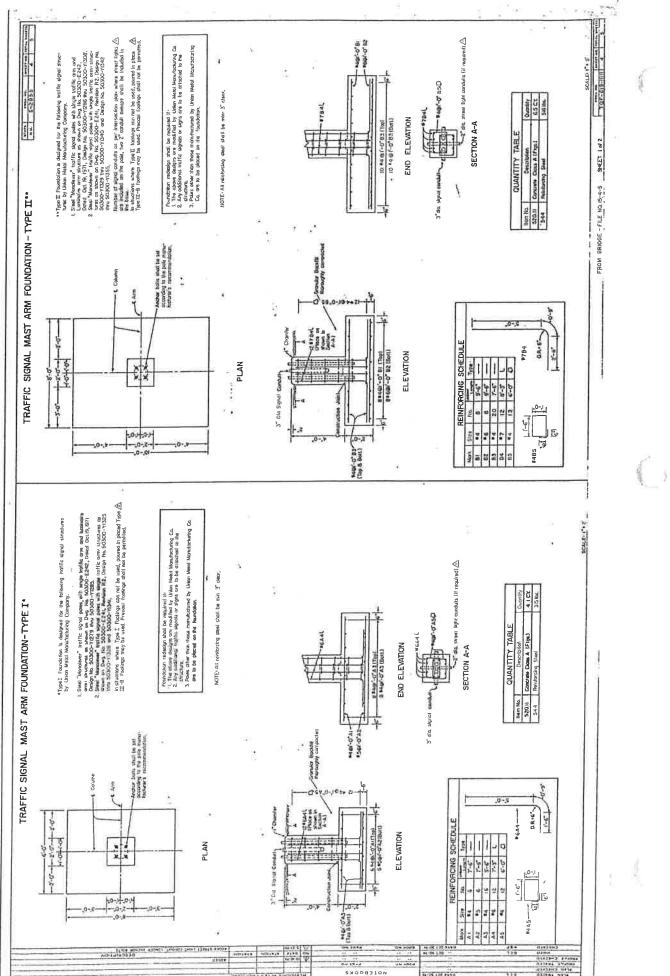
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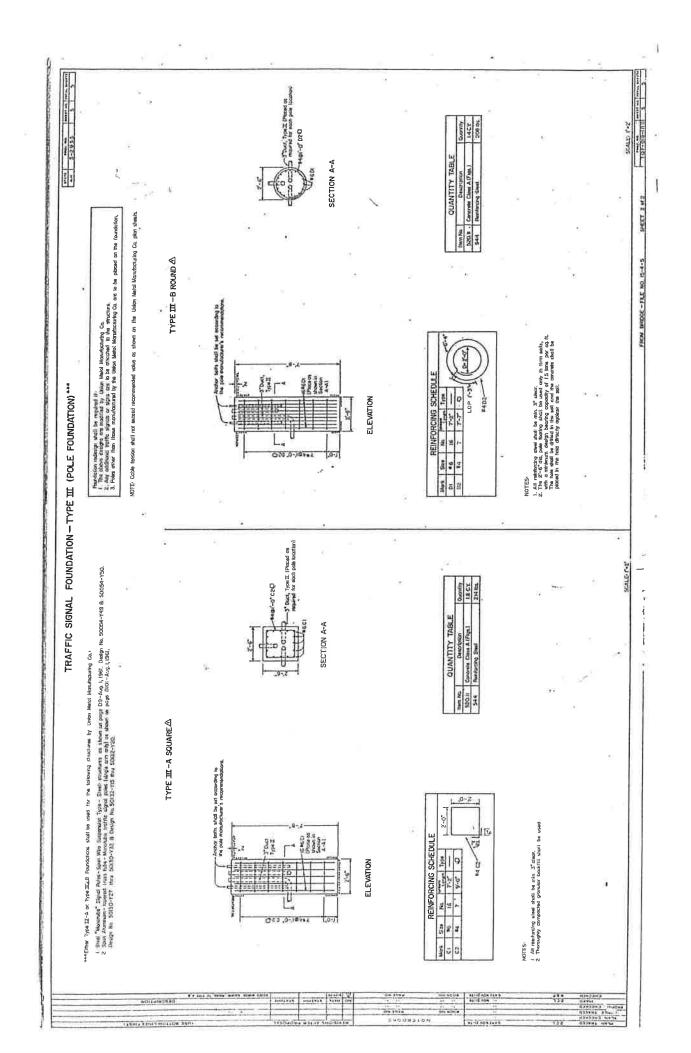
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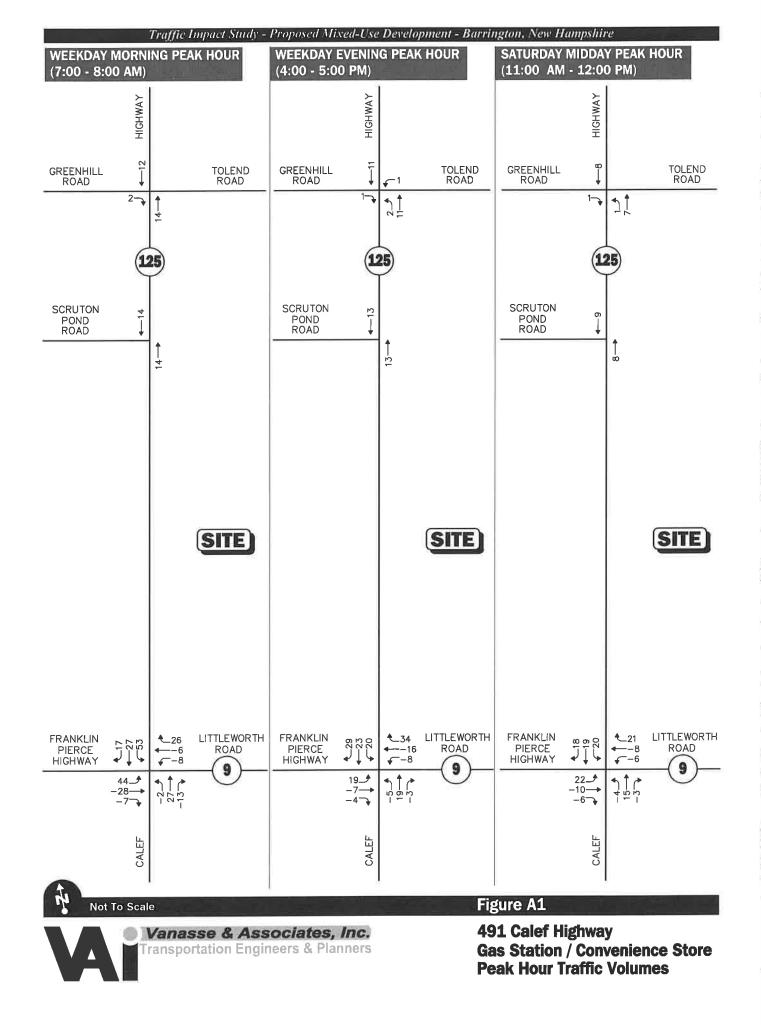








BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS



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Stephen G. Pernaw & Company, Inc.

Table 1A

### Trip Generation Summary - Horizon Year (2012)

	A	M Peak H	our	P	M Peak He	our
TRIP GENERATION	Entering	Exiting	Total	Entering	Exiting	Total
Gas Station/C-Store <sup>1</sup>	100 veh	100 veh	200 trips	115 veh	115 veh	230 trips
Donut Shop <sup>2</sup>	138 veh	138 veh	276 trips	43 veh	43 veh	86 trips
Less Trip Linking <sup>3</sup>	<u>-47</u> <u>veh</u>	<u>-47</u> <u>veh</u>	<u>-94</u> trips	<u>-15</u> veh	<u>-15</u> veh	<u>-30</u> trips
<b>Opening Year Generation</b>	191 veh	191 veh	382 trips	143 veh	143 veh	286 trips
TRIP COMPOSITION				<u>#</u> [		
Primary Trips	46 veh	46 veh	92 trips	42 veh	42 veh	84 trips
Pass-by Trips <sup>4</sup>	<u>145 veh</u>	<u>145 veh</u>	<u>290</u> trips	<u>101 veh</u>	<u>101</u> veh	<u>202</u> trips
Total Trips	191 veh	191 veh	382 trips	143 veh	143 veh	286 trips

Table 1B

### Trip Generation Summary - Horizon Year (2022)

	A	M Peak H	our	P	M Peak H	our
TRIP GENERATION	Entering	Exiting	<u>Total</u>	Entering	Exiting	<u>Total</u>
Gas Station/C-Store <sup>1</sup>	100 veh	100 veh	200 trips	115 veh	115 veh	230 trips
Donut Shop <sup>2</sup>	152 veh	152 veh	304 trips	47 veh	47 veh	94 trips
Less Trip Linking <sup>3</sup>	<u>-52 veh</u>	<u>-52 veh</u>	<u>-104</u> trips	<u>-16 veh</u>	<u>-16 veh</u>	-32 trips
Horizon Year Generation	200 veh	200 veh	400 trips	146 veh	146 veh	292 trips
TRIP COMPOSITION						
Primary Trips	47 veh	47 veh	94 trips	42 veh	42 veh	84 trips
Pass-by Trips <sup>4</sup>	<u>153</u> <u>veh</u>	<u>153 veh</u>	<u>306</u> trips	<u>104 veh</u>	<u>104 veh</u>	<u>208</u> trips
Total Trips	200 veh	200 veh	400 trips	146 veh	146 veh	292 trips

1) LUC 853 (Convenience Market with Gasoline Pumps), 12 vehicle fueling positions (rate method)

2) 10% (AM) and 3% (PM) capture rate method calculated from SGP 2022 No-Build traffic projections

3) Less 34% of donut shop trips due to the convenience store walk-in customers

4) LUC 853 pass-by rate = 63% (AM), 66% (PM); Donut Shop pass-by rate = 90% per scope meeting.



The primary trips or "new" trips to the area are expected to be distributed in the following manner:

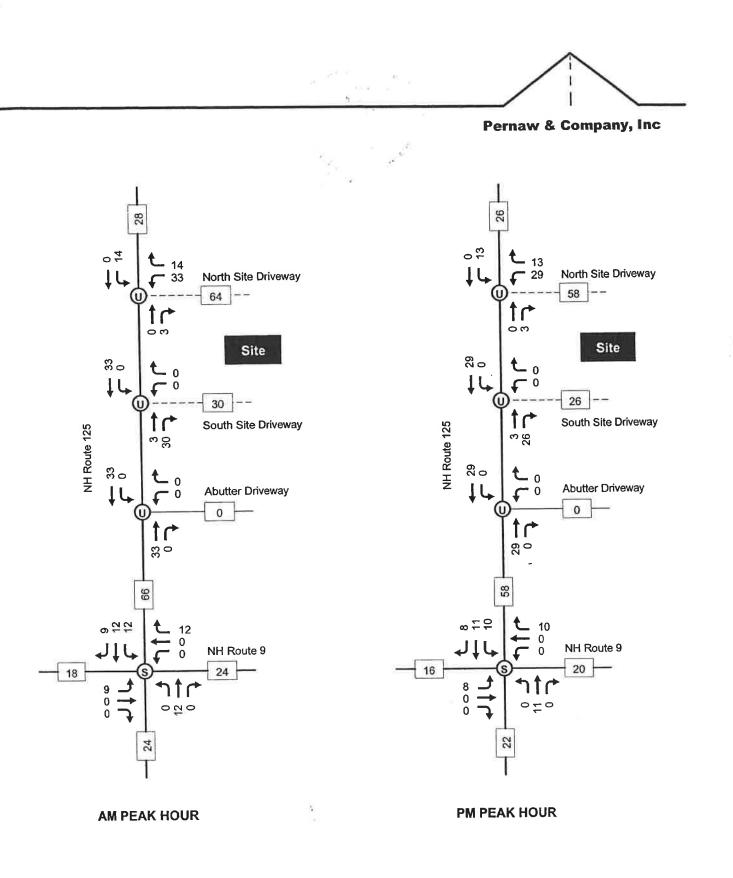
To / From	Percentage
NH Route 125 - North	30%
NH Route 125 - South	25%
NH Route 9 - East	25%
NH Route 9 - West	20%
	100%

These percentages are based on an analysis of several factors, including overall regional accessibility, population densities and local knowledge of the study area. The pass-by trips are expected to be distributed in proportion to the approach volumes observed at the NH125/NH9 signalized intersection.

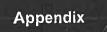
Appendix G contains diagrams that summarize the anticipated distribution of site traffic throughout the study area for the morning and evening analysis periods.

### **BUILD TRAFFIC VOLUMES**

The Build traffic projections (with the proposed development) are summarized schematically on Figure 5 (2012) and Figure 6 (2022). These projections are based on the No-Build traffic volumes (Figure 3 and Figure 4), the trip generation estimates contained in Table 1B, and the anticipated trip distribution patterns described above. Since the difference between the trip generation estimates for 2012 and 2022 is not significant, the 2022 trip generation estimates were applied to both the opening year and horizon year cases.



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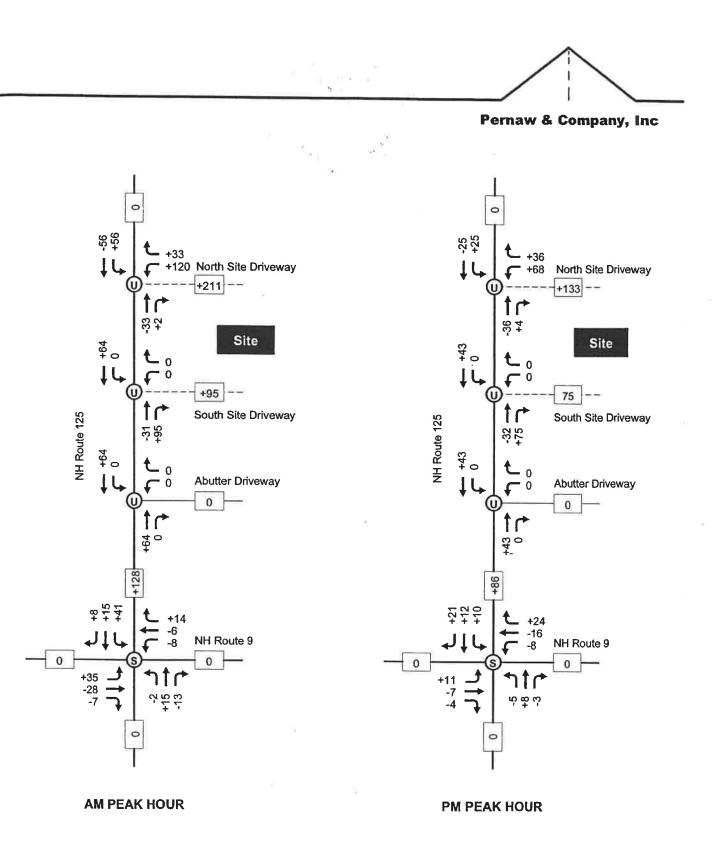


Site Generated Traffic Volumes - Primary Trips

Traffic Impact and Site Access Study, Proposed Gas Station/Convenience Store, Barrington, New Hampshire

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NORTH



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Appendix

Site Generated Traffic Volumes - Pass-By Trips

Traffic Impact and Site Access Study, Proposed Gas Station/Convenience Store, Barrington, New Hampshire

NORTH

### Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition Land Use Code (LUC) 853 - Convenience Market with Gasoline Pumps

Average Vehicle Trips Ends vs: Vehicle Fueling Positions Independent Variable (X): 12

### AVERAGE WEEKDAY DAILY

T = 542.6 \* (X) T = 542.6 \* 12 T = 6511.20 T = 6,512 vehicle trips with 50% ( 3,256 vpd) entering and 50% ( 3,256 vpd) exiting.

#### WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 16.57 \* (X) T = 16.57 \* 12 T = 198.84 T = 109 2∞ vehicle trips 1∞ with 50% ( 100 vph) entering and 50% ( 90 vph) exiting.

### WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 19.07 \* (X) T = 19.07 \* 12 T = 228.84 T = 229 230 vehicle trips with 50% ( 115 vph) entering and 50% ( 114 vph) exiting.

### SATURDAY DAILY

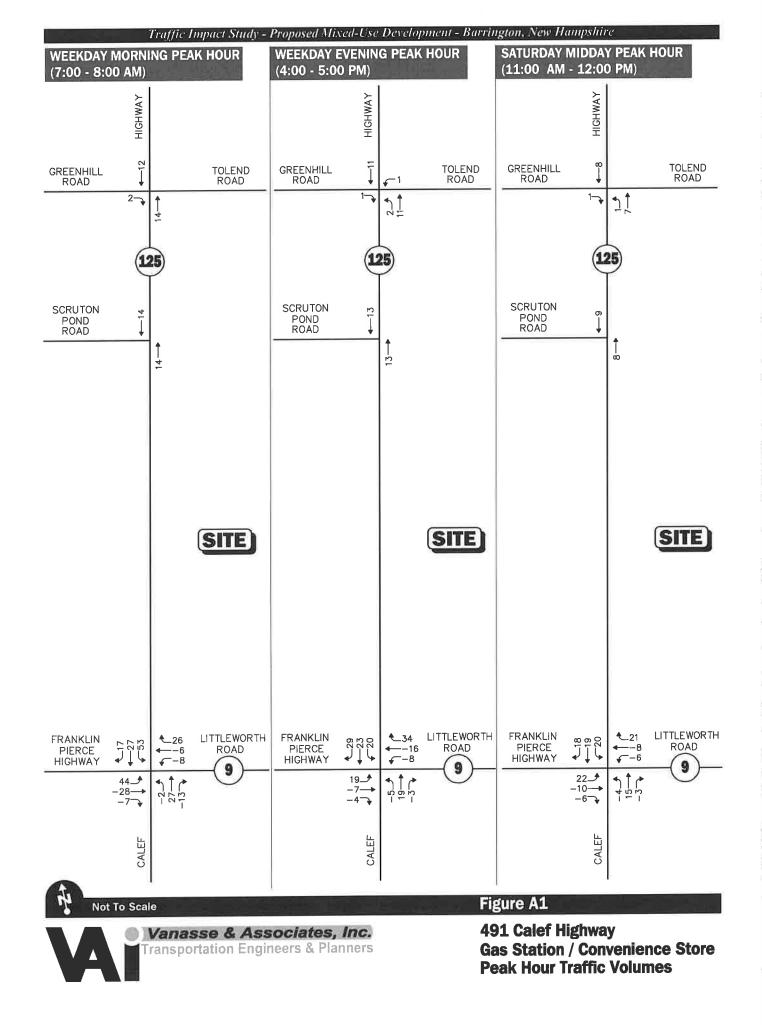
T = 204.47\* (X) T = 204.47 \* 12 T = 2453.64 T = 2,454 vehicle trips with 50% ( 1,227 vph) entering and 50% ( 1,227 vph) exiting.

### SATURDAY MIDDAY PEAK HOUR

T = 10.00\* (X) T = 10.00 \* 12 T = 120.00 T = 120 vehicle trips with 51% ( 61 vph) entering and 49% (

59	vph)	exiting.
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* ASSUME 60 PASS-BY	DONVT	SHOP :	10% CAP		34% DUAL	- RIRASA
TTRIE     PASS-BY     PRIMARY       IN     61     36     25       OUT     59     36     23       TOTAL     120     72     48	IN OUT TOTAL	75 75 150	DUAL RURASE 26 26 52	<u>NET</u> 49 49 98	P455-BY 44 44 88	PRinddy 5 5 10
	*PER ST	UPY BY	SGP + APPR	LOVAD F	TOR USE BY	NHDOT



TRIP-GENERATION CALCULATIONS

# Warehousing (150)

### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

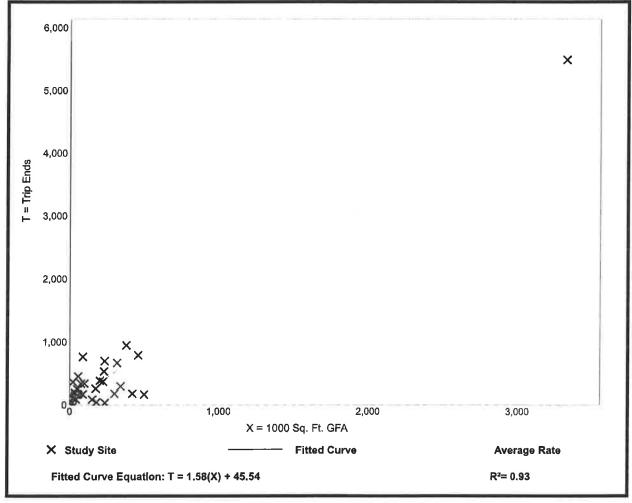
### Setting/Location: General Urban/Suburban

Number of Studies:	29
Avg. 1000 Sq. Ft. GFA:	285
Directional Distribution:	50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.74	0.15 - 16.93	1.55

### **Data Plot and Equation**

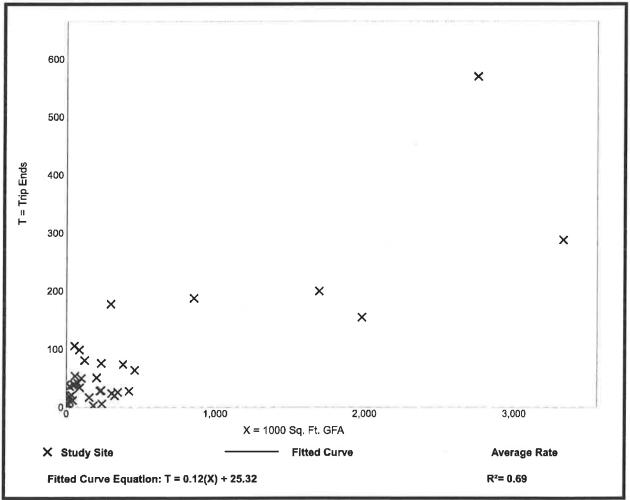


	nousing 50)
Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	34
Avg. 1000 Sq. Ft. GFA:	451
	77% entering, 23% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.20

### **Data Plot and Equation**

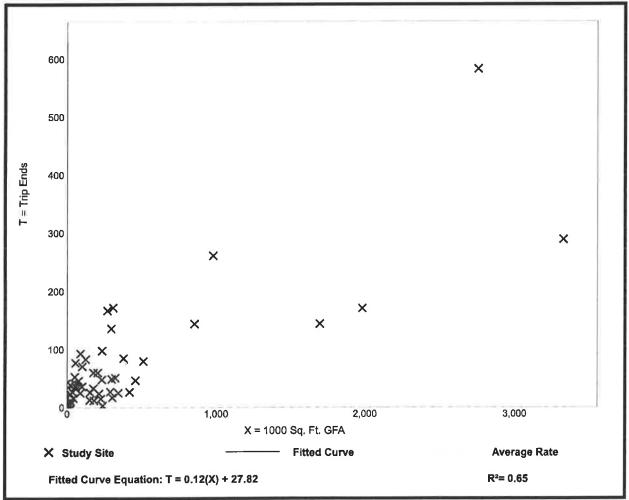


	nousing 50)
Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	47
Avg. 1000 Sq. Ft. GFA:	400
Directional Distribution:	27% entering, 73% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.19	0.01 - 1.80	0.18

### **Data Plot and Equation**



## Warehousing

(150)

### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday

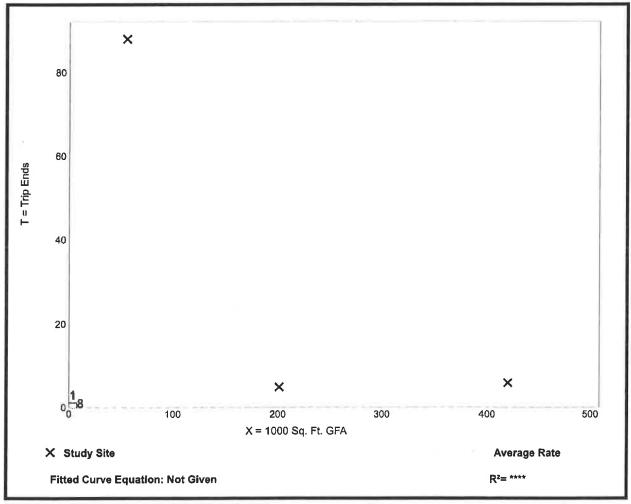
Setting/Location:	General Urban/Suburban
Number of Studies:	3
Avg. 1000 Sq. Ft. GFA:	226
Directional Distribution:	50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.58	0.53

### **Data Plot and Equation**

Caution - Small Sample Size



# Warehousing (150)

### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

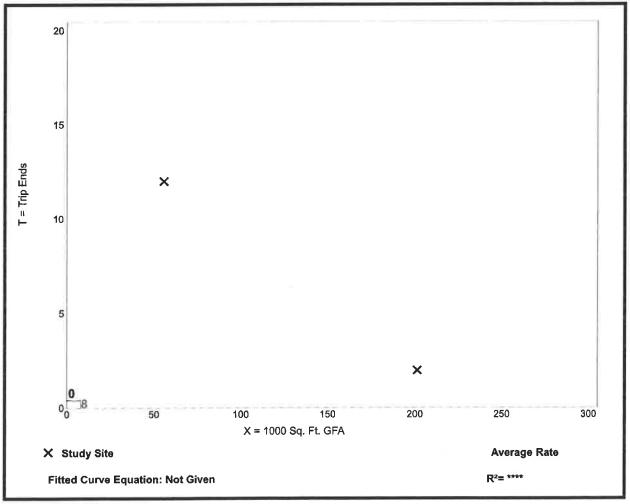
Setting/Location:	General Urban/Suburban
Number of Studies:	2
Avg. 1000 Sq. Ft. GFA:	129
<b>Directional Distribution:</b>	64% entering, 36% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.05	0.01 - 0.22	*

### **Data Plot and Equation**

Caution - Small Sample Size



# Specialty Trade Contractor (180)

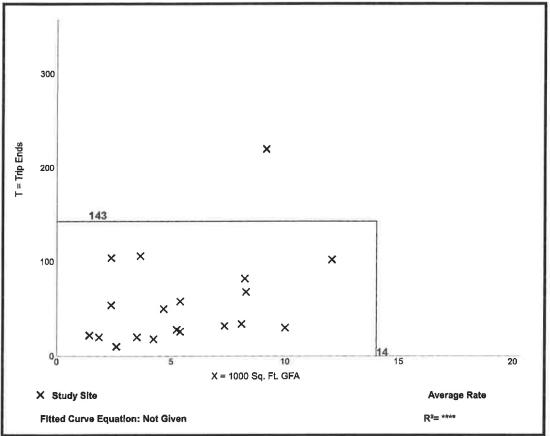
### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location:	General Urban/Suburban
Number of Studies:	19
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.22	3.00 - 43.33	8.82

### **Data Plot and Equation**



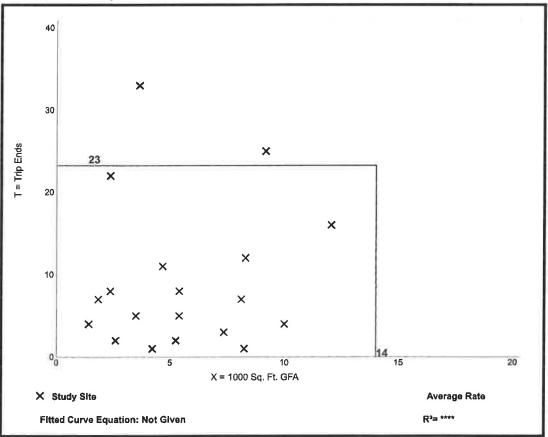
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Specialty Trade Contractor (180)	
1000 Sq. Ft. GFA	
Weekday,	
Peak Hour of Adjacent Street Traffic,	
One Hour Between 7 and 9 a.m.	
General Urban/Suburban	
19	
6	
73% entering, 27% exiting	

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.66	0.12 - 9.17	2.09

### **Data Plot and Equation**



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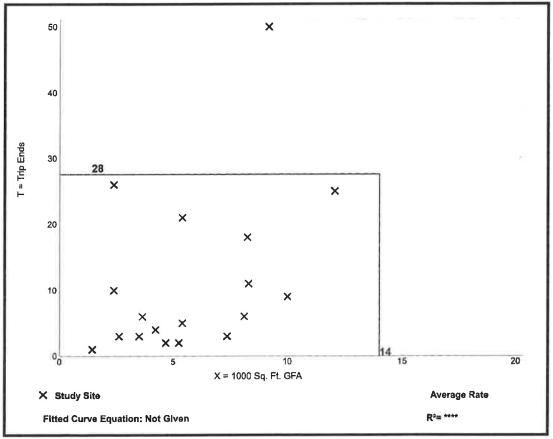
# Specialty Trade Contractor (180)

Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	18
Avg. 1000 Sq. Ft. GFA:	6
	32% entering, 68% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.97	0.38 - 10.83	2.07

### **Data Plot and Equation**



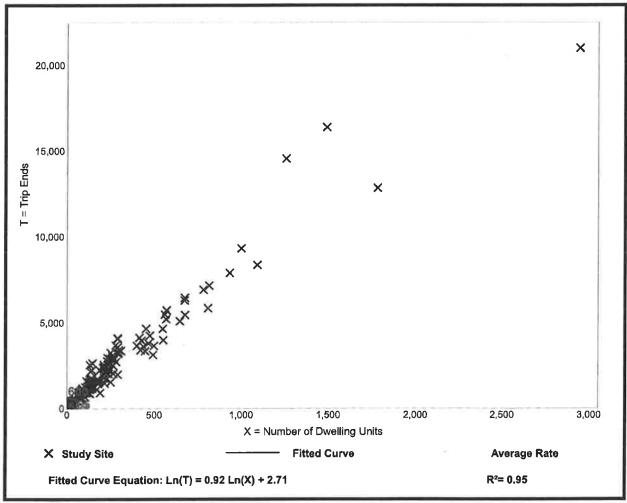
### Single-Family Detached Housing (210)

Vehicle Trip Ends vs: On a:	Dwelling Units Weekday
Setting/Location:	General Urban/Suburban
Number of Studies:	159
Avg. Num. of Dwelling Units:	264
Directional Distribution:	50% entering, 50% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.44	4.81 - 19.39	2.10

### **Data Plot and Equation**



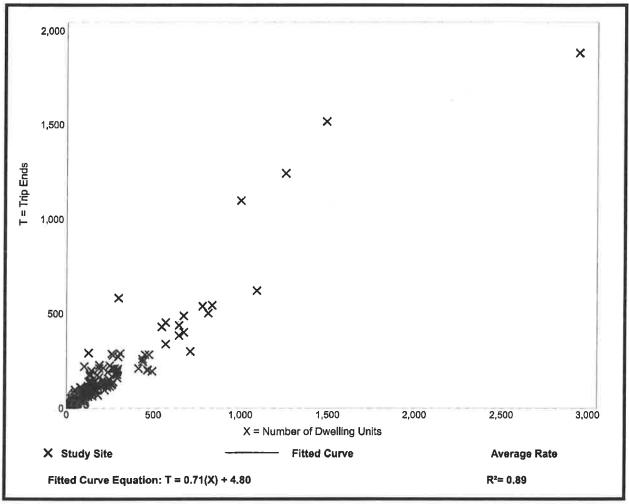
## Single-Family Detached Housing (210)

(210)		
Dwelling Units		
Weekday,		
Peak Hour of Adjacent Street Traffic,		
One Hour Between 7 and 9 a.m.		
General Urban/Suburban		
173		
219		
25% entering, 75% exiting		

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.74	0.33 - 2.27	0.27

### **Data Plot and Equation**



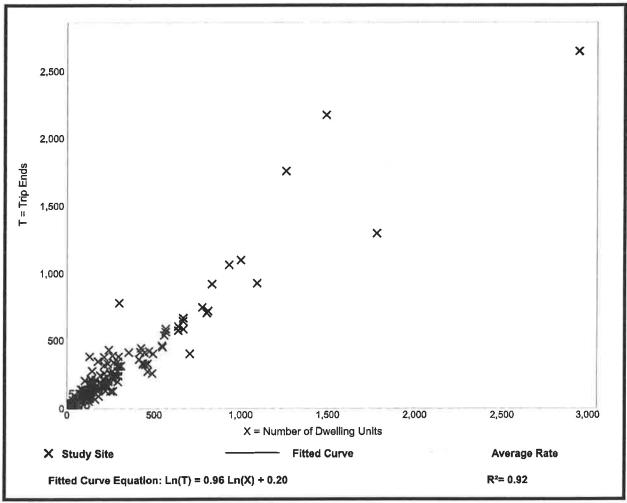
# Single-Family Detached Housing (210)

Vehicle Trip Ends vs:	Dwelling Units
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	190
Avg. Num. of Dwelling Units:	242
	63% entering, 37% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.99	0.44 - 2.98	0.31

### **Data Plot and Equation**



### **Single-Family Detached Housing**

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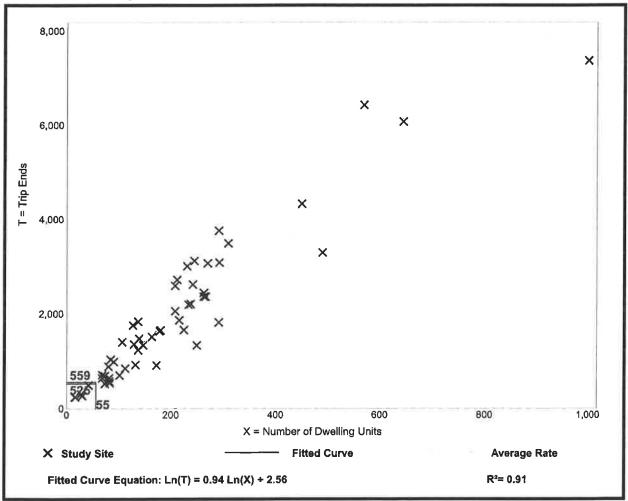
### Vehicle Trip Ends vs: Dwelling Units On a: Saturday

General Urban/Suburban
52
207
50% entering, 50% exiting

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.54	5.32 - 15.25	2.17

### **Data Plot and Equation**



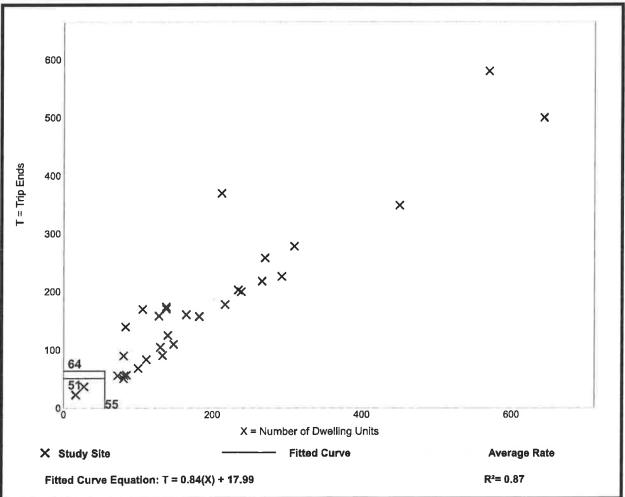
### Single-Family Detached Housing (210)

		,	
Vehicle Tr	-	Dwelling Units Saturday, Peak Hour of Generator	
Settin	g/Location:	General Urban/Suburban	
Numbe	r of Studies:	31	
Avg. Num. of Dw	elling Units:	188	
Directional	Distribution:	54% entering, 46% exiting	

### Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.93	0.64 - 1.75	0.26
0.95	0.04 - 1.75	0.20

### **Data Plot and Equation**



### **General Office Building**

(710)

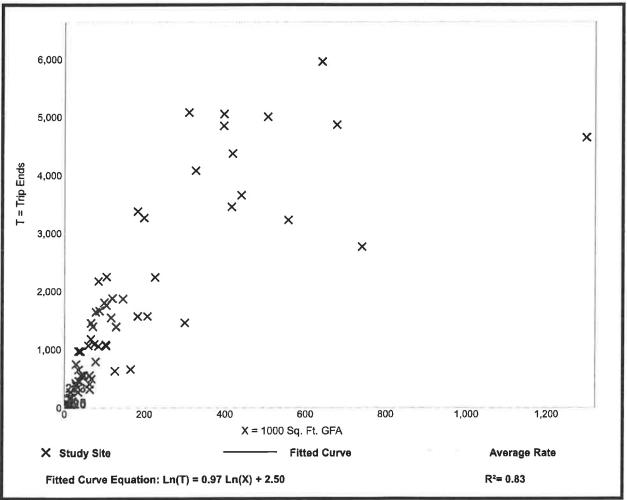
### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

Setting/Location:	General Urban/Suburban
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Number of Studies:	66
Avg. 1000 Sq. Ft. GFA:	171
Directional Distribution:	50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

### **Data Plot and Equation**

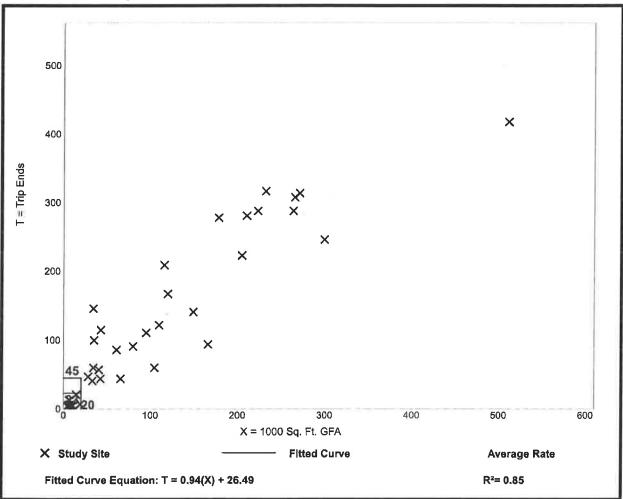


General Office Building (710)		
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	
Setting/Location:	General Urban/Suburban	
Number of Studies:	35	
Avg. 1000 Sq. Ft. GFA:	117	
	86% entering, 14% exiting	

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.16	0.37 - 4.23	0.47

### **Data Plot and Equation**



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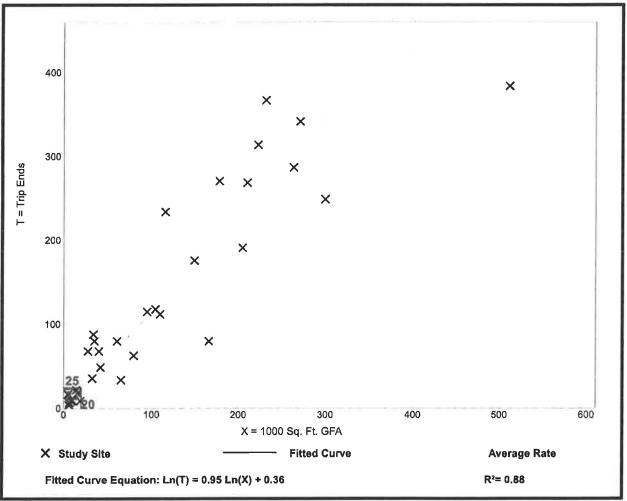
\* USE RATE (SEE WEEKDAY PM PEAK HOUR TRIP CALCULATIONS)

General Office Building (710)	
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	32
Avg. 1000 Sq. Ft. GFA:	114
Directional Distribution:	16% entering, 84% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.15	0.47 - 3.23	0.42

## **Data Plot and Equation**



# General Office Building (710)

#### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday

#### Setting/Location: General Urban/Suburban

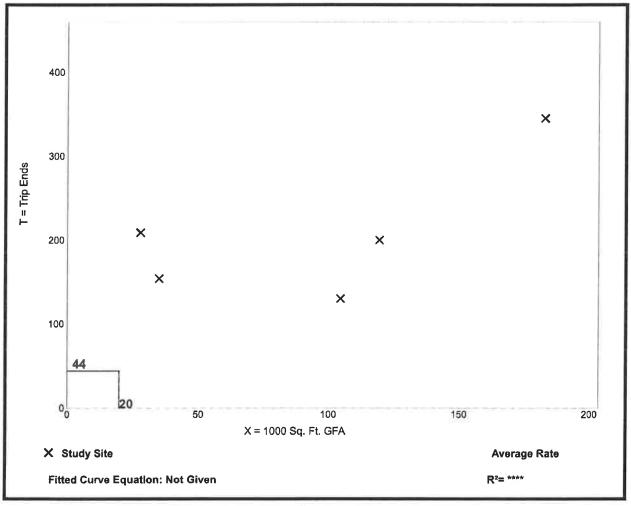
Number of Studies: 5 Avg. 1000 Sq. Ft. GFA: 94 Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.21	1.24 - 7.46	1.70

## **Data Plot and Equation**

**Caution – Small Sample Size** 



# General Office Building (710)

#### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

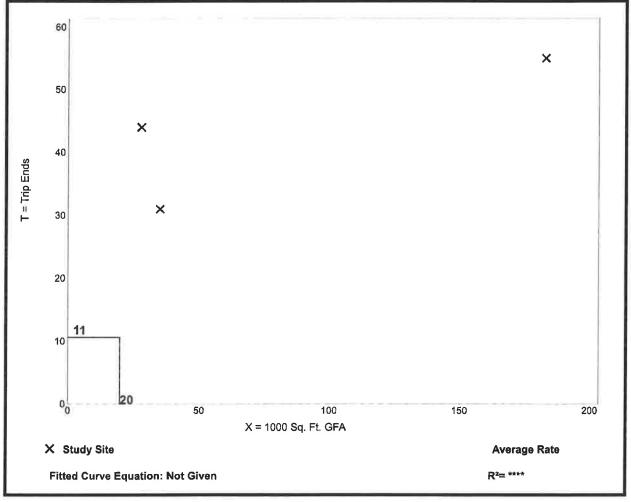
Setting/Location: General Urban/Suburban Number of Studies: 3

Avg. 1000 Sq. Ft. GFA: 82 Directional Distribution: 54% entering, 46% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

### **Data Plot and Equation**

Caution - Small Sample Size



# Government Office Building (730)

### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

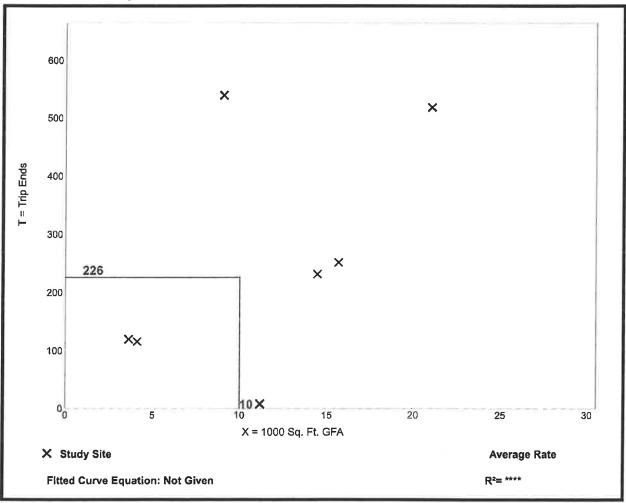
Setting/Location:	General	Urban/Suburban
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Number of Studies:	7
Avg. 1000 Sq. Ft. GFA:	11
Directional Distribution:	50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
22.59	0.71 - 59.66	17.03

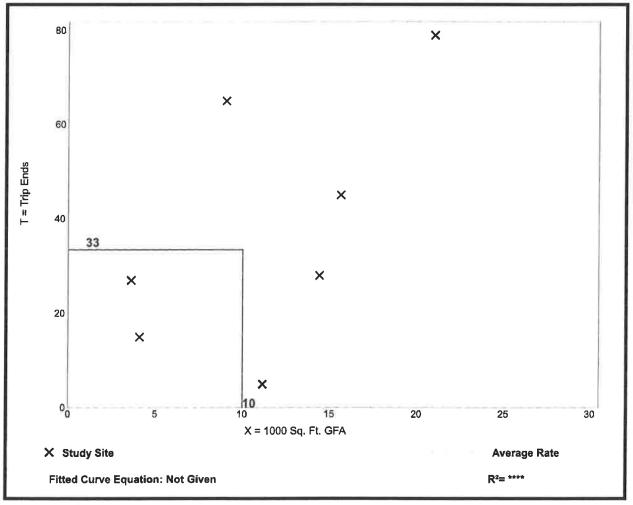
## **Data Plot and Equation**



(7	(30)
Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	7
Avg. 1000 Sq. Ft. GFA:	11
	75% entering, 25% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

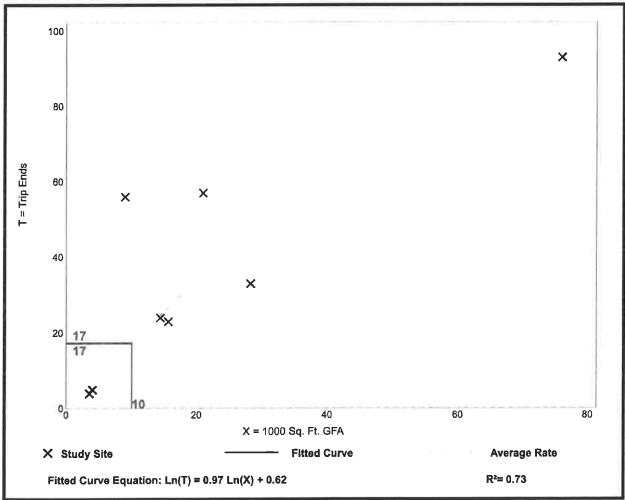
## **Data Plot and Equation**



Government Office Building (730)	
Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	8
Avg. 1000 Sq. Ft. GFA:	22
	25% entering, 75% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

## **Data Plot and Equation**



# Shopping Center (820)

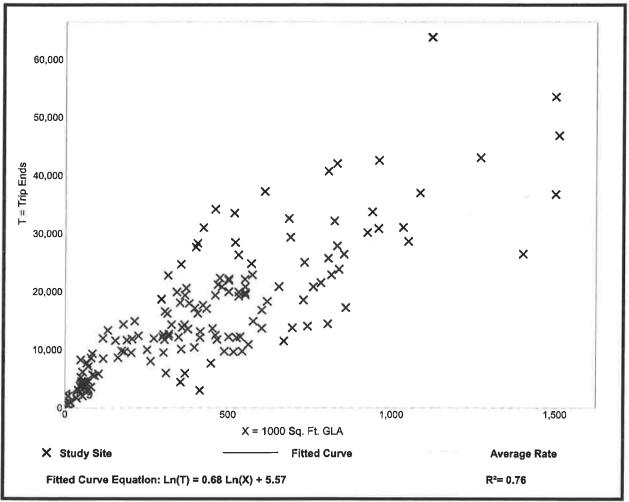
#### Vehicle Trip Ends vs: 1000 Sq. Ft. GLA On a: Weekday

Setting/Location:	General Urban/Suburban
Number of Studies:	147
Avg. 1000 Sq. Ft. GLA:	453
<b>Directional Distribution:</b>	50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

## **Data Plot and Equation**

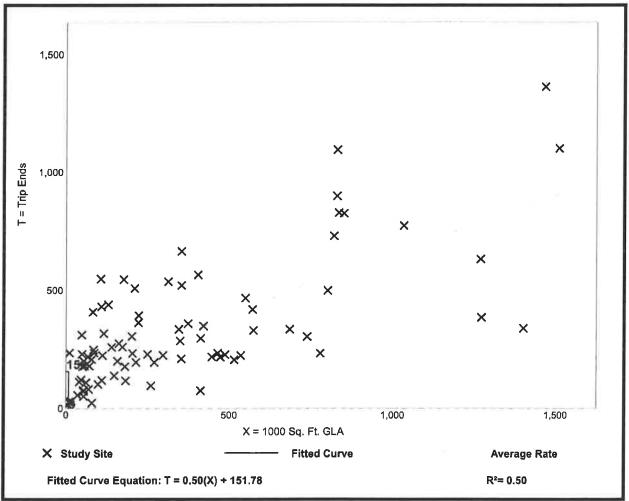


	ng Center 320)
Vehicle Trip Ends vs:	1000 Sq. Ft. GLA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	84
Avg. 1000 Sq. Ft. GLA:	351
	62% entering, 38% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

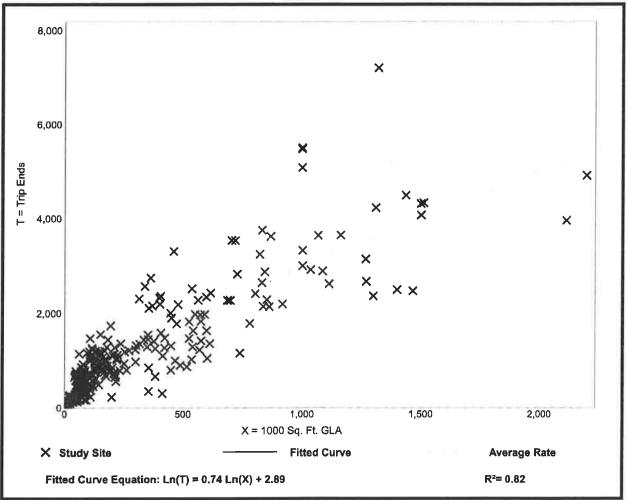
## **Data Plot and Equation**



Shopping Center (820)	
Vehicle Trip Ends vs:	1000 Sq. Ft. GLA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	261
Avg. 1000 Sq. Ft. GLA:	327
	48% entering, 52% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

## **Data Plot and Equation**



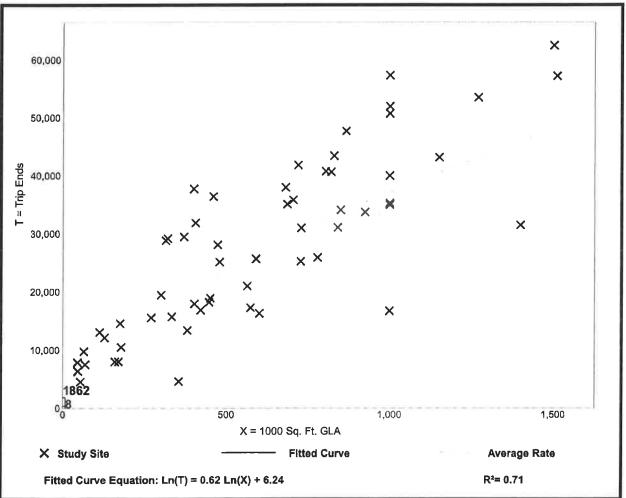
## Shopping Center (820)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA On a: Saturday

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## Vehicle Trip Generation per 1000 Sq. Ft. GLA

## **Data Plot and Equation**



# Shopping Center (820)

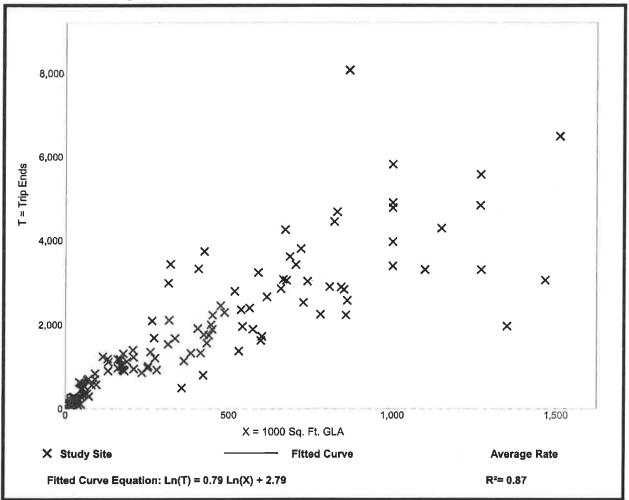
### Vehicle Trip Ends vs: 1000 Sq. Ft. GLA On a: Saturday, Peak Hour of Generator

Setting/Location:	General Urban/Suburban
Number of Studies:	119
Avg. 1000 Sq. Ft. GLA:	416
<b>Directional Distribution:</b>	52% entering, 48% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.50	1.42 - 15.10	1.88

## **Data Plot and Equation**



## **Drive-in Bank**

## (912)

#### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Weekday

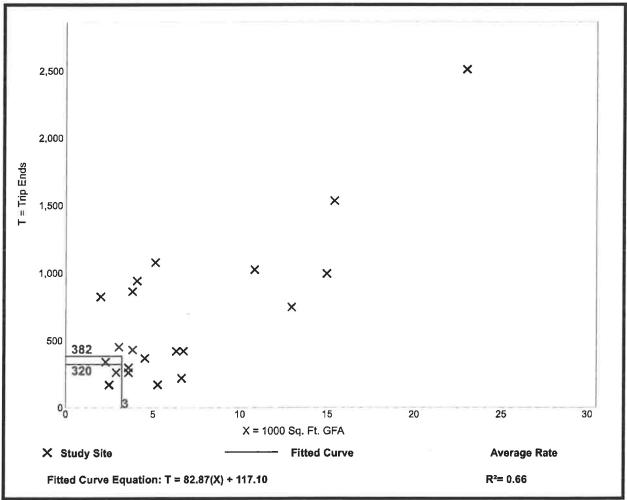
Setting/Location:	General Urban/Suburban
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	7

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
100.03	32.67 - 408.42	61.61

## **Data Plot and Equation**

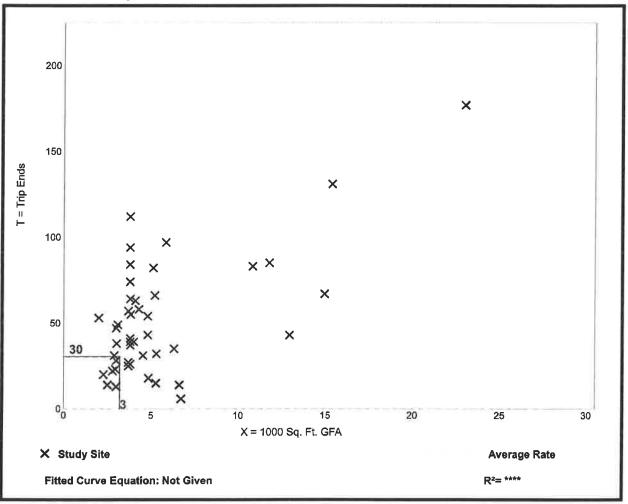


Drive-in Bank (912)	
Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	46
Avg. 1000 Sq. Ft. GFA:	5
	58% entering, 42% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.50	0.89 - 29.47	5.85

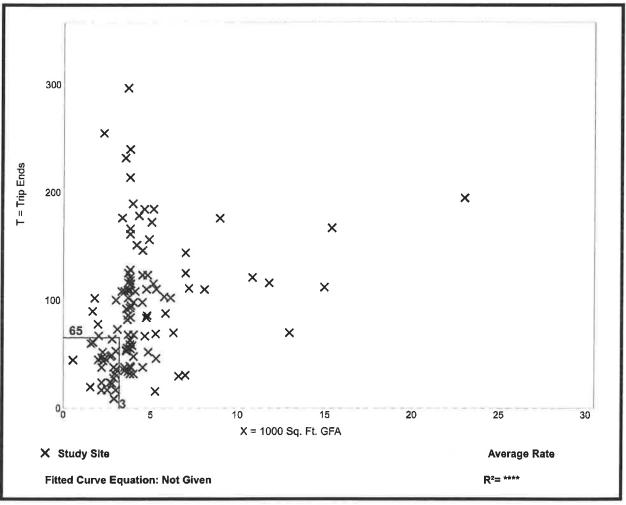
## **Data Plot and Equation**



	<b>in Bank</b> 12)
Vehicle Trip Ends vs:	-
On a:	Weekday,
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	115
Avg. 1000 Sq. Ft. GFA:	4
	50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

## **Data Plot and Equation**



# **Drive-in Bank**

# (912)

#### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday

Setting/Location: General Urban/Suburban

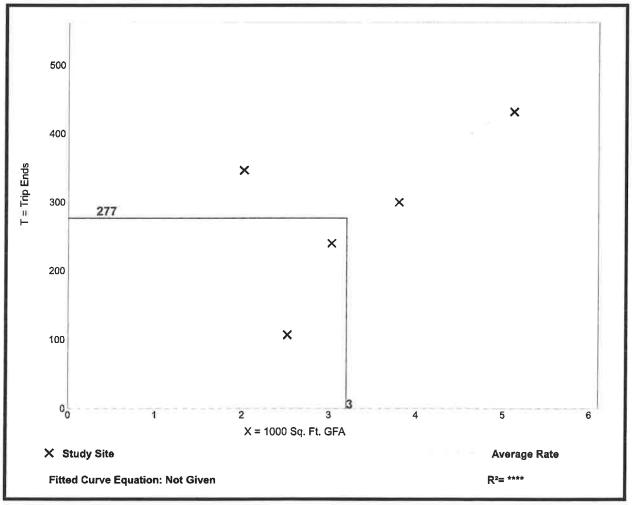
Number of Studies: 5 Avg. 1000 Sq. Ft. GFA: 3 Directional Distribution: 50% entering, 50% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
86.48	42.46 - 171.78	38.92

## **Data Plot and Equation**

Caution – Small Sample Size



# **Drive-in Bank**

# (912)

#### Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

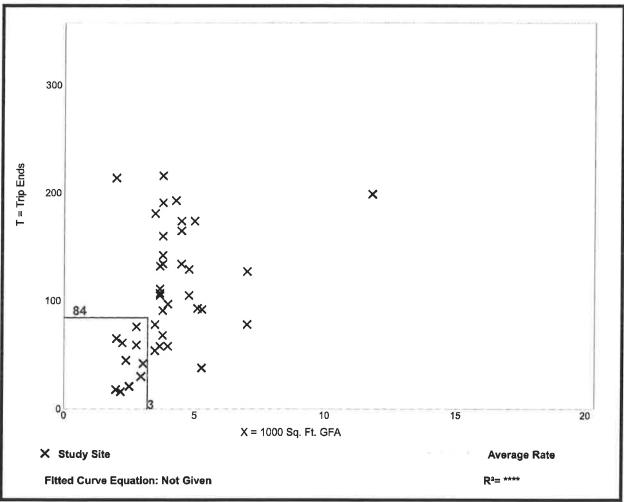
## Setting/Location: General Urban/Suburban

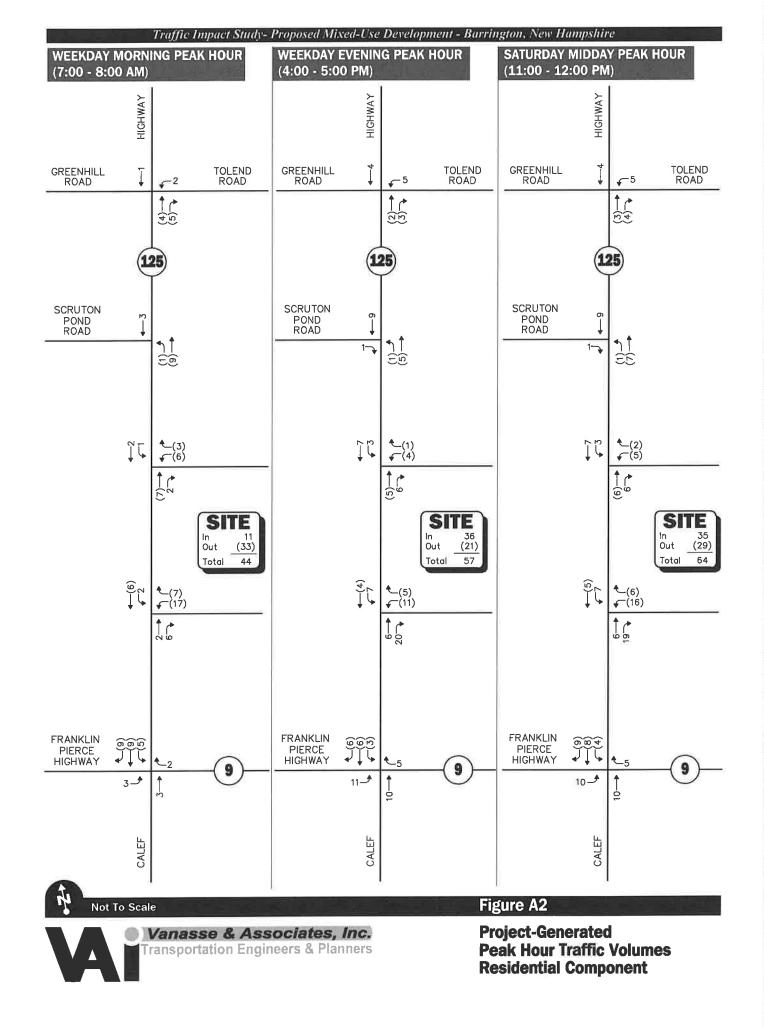
Number of Studies: 41 Avg. 1000 Sq. Ft. GFA: 4 Directional Distribution: 51% entering, 49% exiting

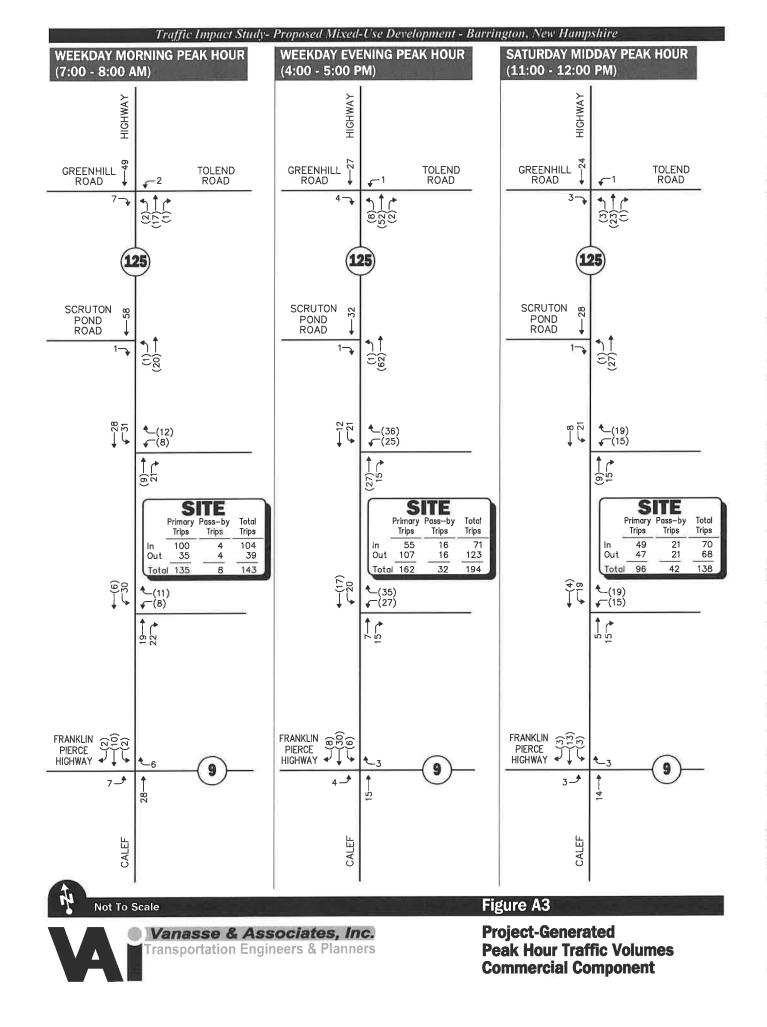
## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
26.35	7.18 - 107.00	15.32

## **Data Plot and Equation**







JOURNEY TO WORK TRIP DISTRIBUTION

Town of Barrington, New Hampshire 2010 U.S. Census Journey-to-Work Data

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New Hampshire         Strafford County         Barrington Key         New Hampshire         Strafford County         Million town         New Hampshire         Strafford County         Million town         New Hampshire         Strafford County         Reministration         New Hampshire         Strafford County         Straff	195	New Hampshire	Strafford County	Barrington town	New Hampshire	Strafford County	Lee town		195					
New Hampshire Strafford County Barmidon town New Hampshire Strafford County New Hampshire Strafford County Barmidon town New Hampshire Strafford County Strafford County Barmidon town New Hampshire Strafford County Hampshire Strafford County New Hampshire Strafford County Barmidon town New Hampshire Strafford County Strafford County Strafford County Strafford County Strafford County Strafford County New Hampshire Strafford	12	New Hampshire	Strafford County	Barrington town	New Hampshire	Strafford County	Milton town	12						
New Hampshire Strafford County Barindolo town New Hampshire Strafford County Bornesson common count New Hampshire Strafford County Barindolo town New Verse Esset County New Hampshire Strafford County Barindolo town New Verse Esset County New Hampshire Strafford County Barindolo town New Verse Bases County New Hampshire Strafford County Barindolo town New Verse State County New Hampshire Strafford County Barindolo town New Verse State County New Hampshire Strafford County Barindolo town New Verse State County New Hampshire Strafford County Barindolo town New Verse State County New Hampshire Strafford County Barindolo town New Verse State County New Hampshire Strafford County Barindolo town New Verse State County New Hampshire Strafford County Barindolo town New Verse State County State County State State State County State Stat	343	New Hampshire	Strafford County	Barrington town	New Hampshire	Strafford County	Hochester city	255						
New Hampshire Strafford County Barmidon town New York Issas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New York Nasas County New York Nasas County New Hampshire Strafford County Barmidon town New York Nasas County New York Nasas Cou	8	INew Hampshire	Strafford County	Barrington town	New Hampshire	Strafford County	Someonical city	n7						
New Hampshire Strafford County Barindton town New Jersey Essex County New Hampshire Strafford County Barindton town New Vork Nassau County New Hampshire Strafford County Barindton town New York Nassau County New Hampshire Strafford County Barindton town New York Nassau County New Hampshire Strafford County Barindton town New York Nassau County New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New Hampshire Strafford County Barindton town New York Nassau County I and New York Nassau Coun	90	New Hampsnife:	Sustion County	Contraction town	New Hamsehire	Station County	Strafford town	2						103
New Hamoshire Strafford County Barrindon town New York Nassau County New Hamoshire Strafford County Barrindon town Vermont Bennington County Stamford town 519 1.254 672 1.316 667 0 1 1.336 1.336 1.356 0.055	Su	New Hamoshine	Strafford County	Barrington town	New Jersev	Essex County				2				
New Hampshire Strafford County Barnington town Vermont Bennington County Stamford town 519 1,254 672 1,316 667 0 11326 1,254 672 1,316 667 0	14	New Hampshire	Strafford County	Barrington town	New York	Nassau County				14				
519         1,754         672         1,316         667         0           11,324         7334         14.64         28.64         14.54         005	13	New Hampshire	Strafford County	Barrington town	Wermont	Bennington County	Stamford town				1 13			
1134 2134 1464 1454 0.04	4 595							519	1,254	672	1,316	667	0	167
								11.2%	27.3%	14.6%	28.6%	14.5%	0.0%	3.6%

## CAPACITY ANALYSIS WORKSHEETS

NH Route 125 at Greenhill Road and Tolend Road NH Route 125 at Scruton Pond Road NH Route 125 at NH Route 9 NH Route 125 at the North Project Site Roadway NH Route 125 at the South Project Site Roadway NH Route 125 at Greenhill Road and Tolend Road

## 2019 Existing Weekday Morning Peak Hour

1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		٦	1	7	ሻ	1	7
Traffic Volume (vph)	19	43	129	25	8	15	20	564	28	17	971	5
Future Volume (vph)	19	43	129	25	8	15	20	564	28	17	971	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	100	0.344	100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25		X11110	25			25		1.11
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30		STON (	30		1	30			30	
Link Distance (ft)		579			696			2249			626	and the second se
Travel Time (s)		13.2	10.00	-	15.8	10		51.1		- 1 - F	14.2	
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Shared Lane Traffic (%)	070	070	2 /0	070	0/0	570	1 /0	070	2470	070	070	070
	0	219	0	0	58	0	22	606	30	18	1033	5
Lane Group Flow (vph) Turn Type		219 NA	0	Perm	NA	0		NA	Perm	pm+pt	NA	Perm
	Perm	4		Peim	NA 8		pm+pt 5	2	Fenn	pm+pt 1	6	renn
Protected Phases		4		0	0		2	2	2		0	G
Permitted Phases	4			8	8		5	2	2	6	6	6 6
Detector Phase	4	4		8	ð		0	2	2	ese siti	0	0
Switch Phase		5.0		5.0			5.0	10.0	40.0	5.0	40.0	10.0
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0	100	14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0	5 - 40	10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.62			0.40		0.07	0.47	0.03	0.03	0.85	0.00
Control Delay		23.5			30.6		3.2	7.2	0.1	2.9	21.3	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14-6	23.5		141.1	30.6	27.57	3.2	7.2	0.1	2.9	21.3	0.0
Queue Length 50th (ft)		39			14		2	86	0	2	231	0
Queue Length 95th (ft)	1. 1. 1. 1. 1.	111			47		7	256	0	6	#751	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)			1.1.1.1				100		100	60		60
Base Capacity (vph)		387			162		341	1281	957	662	1209	1130
Starvation Cap Reductn		0		- VIII	0		0	0	0	0	0	0
Spillback Cap Reductin		0			0	-	0	0	0	0	0	0
Storage Cap Reductin		0			0	23, 21, 21	0	0	0	0	0	0
Reduced v/c Ratio		0.57			0.36		0.06	0.47	0.03	0.03	0.85	0.00
	Aug	0.07	1.0		0.00	1.	0.00	0,47	0.00	0.03	0.00	0.00
Intersection Summary		6 0 0	100		1000			1 28 M	×			

Lanes, Volumes, Timings AJA

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## 2019 Existing Weekday Morning Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type:	Other	
Cycle Length: 80		
Actuated Cycle Leng	gth: 71.3	
Natural Cycle: 75		
Control Type: Actua	ted-Uncoordinated	
# 95th percentile v	olume exceeds capacity, queue n	may be longer.
Queue shown is	maximum after two cycles.	

#### Splits and Phases: 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

l v <sub>ø1</sub>	1 mg2	<b>0</b> 4
14s	50 s	16 s
<b>1</b> Ø5		<b>₫</b> ♥ Ø8
14s	50 s	16.5

## 2019 Existing Weekday Morning Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		ሻ	Ť	٣	ሻ	<b>•</b>	7
Traffic Volume (vph)	19	43	129	25	8	15	20	564	28	17	971	5
Future Volume (vph)	19	43	129	25	8	15	20	564	28	17	971	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.91			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1808			1841		1687	1810	1302	1805	1792	1615
Flt Permitted		0.96			0.46		0.10	1.00	1.00	0.37	1.00	1.00
Satd. Flow (perm)		1744	1.5	E MI M	871	1-11	174	1810	1302	698	1792	1615
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	22	49	148	30	10	18	22	606	30	18	1033	5
RTOR Reduction (vph)	0	95	0	0	16	0	0	0	10	0	0	2
Lane Group Flow (vph)	0	124	0	0	42	0	22	606	20	18	1033	3
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		8.5			8.5		50.9	48.5	48.5	48.3	47.2	47.2
Effective Green, g (s)		10.5			10.5		54.9	50.5	50.5	52.3	49.2	49.2
Actuated g/C Ratio		0.14			0.14		0.72	0.66	0.66	0.69	0.65	0.65
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	-16 E.	240			120		213	1201	864	524	1158	1044
v/s Ratio Prot							c0.01	0.33		0.00	c0.58	
v/s Ratio Perm		c0.07			0.05		0.07	1. 1. 1.	0.02	0.02		0.00
v/c Ratio		0.52			0.35		0.10	0.50	0.02	0.03	0.89	0.00
Uniform Delay, d1		30.4			29.7		10.7	6.5	4.4	4.2	11.2	4.8
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.9			1.8		0.2	0.3	0.0	0.0	8.9	0.0
Delay (s)		32.3			31.5		10.9	6.8	4.4	4.2	20.2	4.8
Level of Service		С	1.0		С		В	A	Α	A	С	A
Approach Delay (s)		32.3			31.5			6.8			19.8	
Approach LOS	1211	С			С			А			В	
Intersection Summary	- 15 -	1000						<u>1011  </u>			5 3	
HCM 2000 Control Delay			17.2	H	CM 2000	Level of	Service		В			2 12
HCM 2000 Volume to Capacity	ratio		0.78									
Actuated Cycle Length (s)			76.1		um of lost				12.0			
Intersection Capacity Utilization	1		69.1%	IC	U Level o	of Service	)		С			
Analysis Period (min)			15									

c Critical Lane Group

## 2019 Existing Weekday Evening Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		٦	1	1	۲	1	7
Traffic Volume (vph)	16	15	41	49	31	36	118	930	28	24	640	28
Future Volume (vph)	16	15	41	49	31	36	118	930	28	24	640	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0	1.1	0	0		0	100		100	60	-	60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	1000		25	1.1.210	1	25	2010	1211.14	25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30	100		30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8		1000	51.1			14.2	
Peak Hour Factor	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)	0,0	0.0	0.0							0,0		
Lane Group Flow (vph)	0	86	0	0	154	0	131	1033	31	27	727	32
Turn Type	Perm	NA	· · ·	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1 Onth	4		1 Onin	8		5	2	1 onin	1	6	1 onn
Permitted Phases	4			8	Ū		2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase	<b>-</b>	- T		0	U		0	2	2	11	U	U
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	2.0	-2.0		2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		-2.0		-	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		4.0			4.0		Lead			4.0 Lead		
Lead-Lag Optimize?							Yes	Lag Yes	Lag Yes	Yes	Lag Yes	Lag Yes
	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)												
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.28			0.56		0.27	0.83	0.03	0.09	0.67	0.03
Control Delay		17.9			33.1		4.4	19.2	0.0	3.6	15.3	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		17.9			33.1		4.4	19.2	0.0	3.6	15.3	0.1
Queue Length 50th (ft)		13			48		14	226	0	3	224	0
Queue Length 95th (ft)		50			95		26	#733	0	8	340	0
Internal Link Dist (ft)		499			616		400	2169	100		546	
Turn Bay Length (ft)							100		100	60	1000	60
Base Capacity (vph)		327			297		499	1243	1118	358	1232	1110
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		0.26			0.52		0.26	0.83	0.03	0,08	0.59	0.03
Intersection Summary			Carlin and	1.11	- 12-3			1-17-18	1.12		N. S.P.	

Lanes, Volumes, Timings AJA Synchro 10 Report S:\Jobs\8188\Analysis\8188-2019PMEX.syn

## 2019 Existing Weekday Evening Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type:	Other					
Cycle Length: 80					1.1	n o sa centra
Actuated Cycle Length:	70.6					
Natural Cycle: 70						E. 24.4
Control Type: Actuated-	Uncoordinated					
# 95th percentile volu	me exceeds capaci	ly, queue may be	longer.			
Queue shown is max	kimum after two cyc	les.				

#### Splits and Phases: 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

V <sub>Ø1</sub>	¶ø₂	
145	50 s	16 5
<b>N</b> Ø5	\$ 06	<b>₹</b> Ø8
145	50 s.	16 5

## 2019 Existing Weekday Evening Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			<del>4</del> 7+		٦	1	<b>آ</b> ر	ሻ	1	1
Traffic Volume (vph)	16	15	41	49	31	36	118	930	28	24	640	28
Future Volume (vph)	16	15	41	49	31	36	118	930	28	24	640	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1850			1878		1805	1863	1615	1805	1863	1615
Flt Permitted		0.89			0.85		0.22	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)	1000	1673			1622		419	1863	1615	182	1863	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Adj. Flow (vph)	19	18	49	65	41	48	131	1033	31	27	727	32
RTOR Reduction (vph)	0	42	0	0	20	0	0	0	11	0	0	13
Lane Group Flow (vph)	0	44	0	0	134	0	131	1033	20	27	727	19
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		<u>bra</u> ri	2		2	6		6
Actuated Green, G (s)		9.1			9.1		50.8	45.1	45.1	43.8	41.6	41.6
Effective Green, g (s)		11.1	6.81 1	1944	11.1		54.8	47.1	47.1	47.8	43.6	43.6
Actuated g/C Ratio		0.15			0.15		0.74	0.63	0.63	0.64	0.59	0.59
Clearance Time (s)	-Y. I	6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		249			241		452	1179	1022	208	1091	946
v/s Ratio Prot							c0.03	c0.55		0.01	0.39	
v/s Ratio Perm		0.03		5 - C	c0.08	12.1	0.18		0.01	0.08		0.01
v/c Ratio		0.18			0.55		0.29	0.88	0.02	0.13	0.67	0.02
Uniform Delay, d1		27.7	71210	3 - A - E	29.4		6.2	11.2	5.1	10.9	10.5	6.5
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.3			2.7		0.4	7.5	0.0	0.3	1.6	0.0
Delay (s)		28.0			32.1		6.5	18.8	5.1	11.2	12.0	6.5
Level of Service		С			С		A	В	A	В	В	A
Approach Delay (s)		28.0			32.1			17.1			11.8	-
Approach LOS		С			С			В		an fear	В	
Intersection Summary	(W-19) - 4		1.8.1.				10 4.4	7-7-7	2.00		2.7	
HCM 2000 Control Delay	- <u>-</u> 2 - 1		16.7	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capaci	ty ratio		0.79									-
Actuated Cycle Length (s)			74.4		um of lost			1	12.0			
Intersection Capacity Utilization	on		74.9%	IC	U Level o	of Service			D			
Analysis Period (min)			15	1.1.1								A 20

c Critical Lane Group

# 2019 Existing Saturday Midday Peak Hour

1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		۲	1	1	ሻ	1	7
Traffic Volume (vph)	12	13	77	33	11	35	68	602	25	20	662	17
Future Volume (vph)	12	13	77	33	11	35	68	602	25	20	662	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	1512		25	Part II.		25			25	- 6	
Right Turn on Red	20		Yes	20		Yes			Yes			Yes
Link Speed (mph)	W.C. W	30	100	11-2-2	30			30	12.10		30	5 - 5 1
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2	-		15.8	1.00		51.1		11 N.	14.2	
Peak Hour Factor	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Heavy Vehicles (%)	0.88	0.00	0.00	0.07	0%	0%	0.00	0.05	0%	0.00	1%	0%
	0 /0	0 /0	070	070	070	070	070	070	070	070	170	070
Shared Lane Traffic (%)	0	117	0	0	91	0	76	676	28	25	828	21
Lane Group Flow (vph)	0		0		No	No	No	No	No	No	No	No
Enter Blocked Intersection	No	No	No	No						Left		
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Leit	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0		- di	0	- Ang		0	5 5 5		0	
Crosswalk Width(ft)		16			16			16			16	-
Two way Left Turn Lane							4.00	4.00	4.00	4.00	4.00	4.00
Headway Factor	0.92	0.92	0.92	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	A LUI L
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0	1. A. A. A.	16.0	16.0	1	14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	1.000	4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	24. T 2						Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.33			0.33		0.16	0.49	0.02	0.04	0.68	0.02
Control Delay		14.2	1.1		22.3		3.4	8.4	0.0	2.9	15.3	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		14.2			22.3		3.4	8.4	0.0	2.9	15.3	0.1
Queue Length 50th (ft)		11			20		7	86	0.0	2.0	261	0.1
Queue Length 95th (ft)		56			61		16	285	0	6	343	Ő
		499			616		10	2169	U	U	546	U
Internal Link Dist (ft)		433			010			2103			0+0	

Lanes, Volumes, Timings AJA Synchro 10 Report S:\Jobs\8188\Analysis\8188-2019SMEX.syn

## 2019 Existing Saturday Midday Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			3.14				100		100	60		60
Base Capacity (vph)		436			342		513	1413	1233	675	1356	1199
Starvation Cap Reductn	1.0.01	0	1231		0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0	1	- 19.01	0		0	0	0	0	0	0
Reduced v/c Ratio		0.27			0.27		0.15	0.48	0.02	0.04	0.61	0.02
Intersection Summary			5 27	27/11		399-	11100			1000	152	- 14
Area Type:	Other											
Cycle Length: 80												
Actuated Cycle Length: 63	3.7											
Natural Cycle: 60	이 다니 가지 않기											
Control Type: Actuated-U	ncoordinated											

### Splits and Phases: 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Ø1	1ø2	
14s	50 s	16 \$
<b>1</b> ø5	<b>↓</b> **ø6	₹ Ø8
145	50 s	16 s

## 2019 Existing Saturday Midday Peak Hour

1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

	۶	-	7	4	-	*	*	†	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		۳	<b>•</b>	1	۲	<b>†</b>	T.
Traffic Volume (vph)	12	13	77	33	11	35	68	602	25	20	662	17
Future Volume (vph)	12	13	77	33	11	35	68	602	25	20	662	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		_	0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1810	14 M	100	1867		1805	1900	1615	1805	1881	1615
Flt Permitted		0.95			0.77		0.18	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)		1737			1470		337	1900	1615	644	1881	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	14	15	88	38	13	40	76	676	28	25	828	21
RTOR Reduction (vph)	0	78	0	0	35	0	0	0	10	0	0	8
Lane Group Flow (vph)	0	39	0	0	56	0	76	676	18	25	828	13
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		5.9			5.9		48.0	42.8	42.8	41.4	39.5	39.5
Effective Green, g (s)		7.9		46 L 🗠	7.9		52.0	44.8	44.8	45.4	41.5	41.5
Actuated g/C Ratio		0.12			0.12		0.76	0.65	0.65	0.66	0.60	0.60
Clearance Time (s)		6.0	94 J (4)		6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		200			169		409	1240	1054	492	1137	977
v/s Ratio Prot							c0.02	c0.36		0.00	c0.44	
v/s Ratio Perm		0.02	1.2.5		c0.04		0.12		0.01	0.03		0.01
v/c Ratio		0.20			0.33		0.19	0.55	0.02	0.05	0.73	0.01
Uniform Delay, d1		27.5	4 H K I	VICE	27.9		6.2	6.4	4.2	4.3	9.6	5.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5		2 I.	1.1		0.2	0.5	0.0	0.0	2.4	0.0
Delay (s)		28.0			29.1		6.4	6.9	4.2	4.4	11.9	5.4
Level of Service	Prest.	С		Sec.	С		Α	А	Α	А	В	A
Approach Delay (s)		28.0	_		29.1			6.8			11.6	
Approach LOS		С			С	1	ĒV ir i	А	6 - 79	N 2 54	В	
Intersection Summary					014 0000							N ST
HCM 2000 Control Delay			11.4	H	CM 2000	Level of a	Service		В			
HCM 2000 Volume to Capac	city ratio		0.60						40.0			
Actuated Cycle Length (s)			68.6		im of lost				12.0			
Intersection Capacity Utiliza Analysis Period (min)	tion		60.2% 15	IC	U Level o	t Service			В			

c Critical Lane Group

## 2020 No Build Weekday Morning Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		ሻ	1	۲	ሻ	- <b>†</b>	7
Traffic Volume (vph)	19	43	132	25	8	15	20	556	28	17	993	5
Future Volume (vph)	19	43	132	25	8	15	20	556	28	17	993	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	. Se la 1		25			25			25		Y The b
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	2- 27		30			30			30	1.0
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2	1.1	1.10	15.8			51.1			14.2	
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	223	0	0	58	0	22	598	30	18	1056	5
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2	T. See.	1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8	1.1	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0	1	14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0	W.	8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.63			0.40		0.08	0.47	0.03	0.03	0.87	0.00
Control Delay		23.5			30.7		3.3	7.1	0.1	2.8	22.9	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		23.5			30.7		3.3	7.1	0.1	2.8	22.9	0.0
Queue Length 50th (ft)		39			14		2	85	0	2	245	0
Queue Length 95th (ft)		111			47		7	251	0	6	#776	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)		100					100		100	60	-	60
Base Capacity (vph)		390			162		325	1280	956	668	1208	1129
Starvation Cap Reductn		0	13,3.58		0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	Ő	0	0
Storage Cap Reductn		0			0		Ő	Ŭ	Ũ	Ő	0	Ő
Reduced v/c Ratio		0.57			0.36		0.07	0.47	0.03	0.03	0.87	0.00
Intersection Summary	en ko		3							5.41		5

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## 2020 No Build Weekday Morning Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type:	Other					
Cycle Length: 80						
Actuated Cycle Length	: 71.1					
Natural Cycle: 75						2.2. 1. 1. 1.
Control Type: Actuated	d-Uncoordinated					
# 95th percentile val	ume exceeds capacity	, queue may be	tonger.			
Queue shown is ma	aximum after two cycle	S.				

#### Splits and Phases: 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

V <sub>Ø1</sub>	Ø2	- <b>1</b> 04
14s	50 s	16 s
<b>1</b> Ø5	<b>↓</b> ø <sub>6</sub>	<b>₹</b> _Ø8
14s	50 s	16.5

## 2020 No Build Weekday Morning Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

	٠	-	*	*	+	*	1	†	1	1	Ļ	4
Movement	EBL.	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		ሻ	<b>^</b>	7	ሻ	1	1
Traffic Volume (vph)	19	43	132	25	8	15	20	556	28	17	993	5
Future Volume (vph)	19	43	132	25	8	15	20	556	28	17	993	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0	1.15	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.91		- "in !!!	0.96	4 =:	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1807			1841		1687	1810	1302	1805	1792	1615
Flt Permitted		0.96			0.46		0.08	1.00	1.00	0.37	1.00	1.00
Satd. Flow (perm)		1744	E E V	11.2	867	9.5	148	1810	1302	706	1792	1615
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	22	49	152	30	10	18	22	598	30	18	1056	5
RTOR Reduction (vph)	0	97	0	0	15	0	0	0	10	0	0	2
Lane Group Flow (vph)	0	126	0	0	43	0	22	598	20	18	1056	3
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Turn Type	Perm	NA		Perm	NA	19.12	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		Seat 1	2		2	6		6
Actuated Green, G (s)		8.6			8.6		50.7	48.3	48.3	48.1	47.0	47.0
Effective Green, g (s)		10.6		10.212	10.6		54.7	50.3	50.3	52.1	49.0	49.0
Actuated g/C Ratio		0.14			0.14		0.72	0.66	0.66	0.69	0.64	0.64
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		243	10.11		120	101.71	195	1197	861	528	1155	1041
v/s Ratio Prot							c0.01	0.33		0.00	c0.59	
v/s Ratio Perm		c0.07	1.5		0.05	340.5	0.07		0.02	0.02		0.00
v/c Ratio		0.52			0.35		0.11	0.50	0.02	0.03	0.91	0.00
Uniform Delay, d1		30.3	10 A.		29.6	- 14 H	11.8	6.5	4.4	4.2	11.7	4.8
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.9			1.8	-	0.3	0.3	0.0	0.0	11.1	0.0
Delay (s)		32.2			31.4		12.0	6.8	4.4	4.2	22.7	4.8
Level of Service		С			С		В	Α	А	А	С	A
Approach Delay (s)		32.2			31.4			6.9			22.3	_
Approach LOS		С			С	1905		Α			С	11
Intersection Summary	<u>i di k</u>	e la sur Me								1.1.1.1		_
HCM 2000 Control Delay			18.7	H	CM 2000	Level of a	Service		В			
HCM 2000 Volume to Capacity	ratio		0.79									
Actuated Cycle Length (s)			76.0		um of lost				12.0			
Intersection Capacity Utilization Analysis Period (min)	l National (1963)		70.4% 15	IC	U Level o	f Service			С			

c Critical Lane Group

## 2020 No Build Weekday Evening Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

	٨	-	7	•	+	*	1	1	1	1	Ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$		۲	1	7	ሻ	1	7
Traffic Volume (vph)	16	15	42	50	31	36	121	950	28	24	657	28
Future Volume (vph)	16	15	42	50	31	36	121	950	28	24	657	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	1000		25	2	100	25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30		11 20 1	30	4.21		30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2		1.000	15.8		Par la	51.1		22 - 24	14.2	1211
Peak Hour Factor	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)	070	070	070	070	070	170	070	270	070	070	a. / 0	070
Lane Group Flow (vph)	0	87	0	0	156	0	134	1056	31	27	747	32
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	Leit	0	Tagin	Len	0	Tagit	Len	12	rugin	Leit	12	rugitt
Link Offset(ft)		0	H. 7.2.		0			0			0	11 W 12
		16			16			16	2.1	- C - L - C - C - C - C - C - C - C - C	16	-
Crosswalk Width(ft)		10			10			10	C		10	S. Carlo
Two way Left Turn Lane	0.02	0.92	0.92	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Headway Factor	0.92 15	0.92	0.92	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		NIA	9		NA	9		NA	Perm		NA	Perm
Turn Type	Perm	NA		Perm	8		pm+pt 5	2	Feim	pm+pt 1	6	reim
Protected Phases	4	4		0	0		2	2	0		0	G
Permitted Phases	4	4		8 8	8		5	2	2	6	6	6 6
Detector Phase	4	4		0	0		C	2	2		0	0
Switch Phase	50	50		5.0	5.0		5.0	40.0	10.0	50	10.0	10.0
Minimum Initial (s)	5.0	5.0		5.0			5.0	10.0	10.0	5.0	and the second second	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.29			0.58		0.29	0.84	0.03	0.09	0.68	0.03
Control Delay		17.9		1.12	34.5		4.4	19.9	0.0	3.6	15.5	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		17.9			34.5		4.4	19.9	0.0	3.6	15.5	0.1
Queue Length 50th (ft)		13			51		14	238	0	3	236	0
Queue Length 95th (ft)		51			97		27	#759	0	8	356	0
Internal Link Dist (ft)		499			616			2169			546	

Lanes, Volumes, Timings AJA

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## 2020 No Build Weekday Evening Peak Hour 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)			100		Te state		100	19.00	100	60		60
Base Capacity (vph)		319			287		488	1254	1127	343	1231	1109
Starvation Cap Reductn		0	-1-1-1	1. 11.	0	3.3.4	0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0		1.1.2.4	0		0	0	0	0	0	0
Reduced v/c Ratio		0.27			0.54		0.27	0.84	0.03	0.08	0.61	0.03
Intersection Summary		10-12-1	1121		242.41		A state	1.1	ny -	1000	-1-51	
Area Type: Ot	her											
Cycle Length: 80	1000	100		100								
Actuated Cycle Length: 72.5												
Natural Cycle: 75	1 2- 31											
Control Type: Actuated-Uncoo	rdinated											
# 95th percentile volume exc		pacity, que	eue may	be longer	. J. J.							1.44

Queue shown is maximum after two cycles.

### Splits and Phases: 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Ø1	1ø2	-04
145	SD s	16 s
<b>1</b> Ø5	↓ Ø6	₹_Ø8
14s	50 s	16 5

	۶	-+	7	-	+	*	1	†	1	1	Ŧ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		٦	1	۴	ኻ	个	7
Traffic Volume (vph)	16	15	42	50	31	36	121	950	28	24	657	28
Future Volume (vph)	16	15	42	50	31	36	121	950	28	24	657	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
FIt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1849			1879		1805	1863	1615	1805	1863	1615
Flt Permitted		0.89			0.84		0.21	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)		1665	-	Since	1608		407	1863	1615	168	1863	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Adj. Flow (vph)	19	18	50	67	41	48	134	1056	31	27	747	32
RTOR Reduction (vph)	0	43	0	0	21	0	0	0	11	0	0	13
Lane Group Flow (vph)	0	44	0	0	135	0	134	1056	20	27	747	19
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA	, <b>1</b> , -1	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		1 - T	8			2	11 1	2	6	1.5	6
Actuated Green, G (s)		9.1			9.1		52.6	46.8	46.8	45.6	43.3	43.3
Effective Green, g (s)	1.1	11.1			11.1		56.6	48.8	48.8	49.6	45.3	45.3
Actuated g/C Ratio		0.15			0.15		0.74	0.64	0.64	0.65	0.59	0.59
Clearance Time (s)		6.0		4 L I 15	6.0	1.1	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		242			234	1.1	445	1193	1034	201	1107	960
v/s Ratio Prot							c0.03	c0.57		0.01	0.40	
v/s Ratio Perm		0.03			c0.08		0.19		0.01	0.08		0.01
v/c Ratio		0.18			0.58		0.30	0.89	0.02	0.13	0.67	0.02
Uniform Delay, d1		28.6			30.4		6.4	11.4	5.0	11.5	10.5	6.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4			3.5		0.4	8.1	0.0	0.3	1.6	0.0
Delay (s)		28.9			33.8		6.8	19.5	5.0	11.8	12.1	6.3
Level of Service		С	ej îtite e		С		А	В	A	В	В	A
Approach Delay (s)		28.9			33.8			17.7			11.9	
Approach LOS		С			С			В			В	
Intersection Summary	TRANK.							1.4				. <del></del>
HCM 2000 Control Delay			17.2	H	CM 2000	Level of	Service		В		122	
HCM 2000 Volume to Capac	city ratio		0.80						10.0			-
Actuated Cycle Length (s)			76.2		um of lost				12.0			
Intersection Capacity Utilization	tion		76.3%	IC	U Level o	of Service			D			_
Analysis Period (min)			15			1.128						

	≯	-	*	4	-	*	-	†	1	1	Ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷			<del>4</del> >		Ϋ́,	<b>^</b>	7	۲,	1	7
Traffic Volume (vph)	12	13	79	33	11	35	70	615	25	20	677	17
Future Volume (vph)	12	13	79	33	11	35	70	615	25	20	677	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0	Sec. 1.	0	0		0	100	S	100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	1.		25	-3-1-1-	4	25	du di Fa	100	25	11.00	1.1.1
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	-	30	-21.5		30			30	1. J. T. J. T.		30	-
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2	i i de la composición		15.8	4 N X 4	11 12	51.1			14.2	
Peak Hour Factor	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)	070	070	070	070	070	070	0.10	0,0	0,0	0.10	170	• • •
Lane Group Flow (vph)	0	119	0	0	91	0	79	691	28	25	846	21
Turn Type	Perm	NA	0	Perm	NA	v	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	Feim	4		I CIIII	8	1000	5	2	T GHI	1 1	6	1 Gilli
Permitted Phases	4			8	U		2	2	2	6	0	6
The second se	4	4		8	8		5	2	2	1	6	6
Detector Phase	4	4		0	0	1000	J	2	2		0	0
Switch Phase	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Initial (s)	5.0			11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Minimum Split (s)	11.0	11.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (s)	16.0	16.0					14.0	62.5%	62.5%	17.5%	62.5%	62.5%
Total Split (%)	20.0%	20.0%		20.0%	20.0%		8.0	44.0	44.0	8.0	44.0	44.0
Maximum Green (s)	10.0	10.0	111	10.0	10.0					4.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0	-	4.0	4.0	4.0 2.0	2.0	2.0	2.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0 4.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	and the second se
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	_	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.33			0.34		0.17	0.49	0.02	0.04	0.70	0.02
Control Delay	1 12 2	14.2	100		22.6		3.4	8.5	0.0	2.9	15.7	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1	14.2			22.6		3.4	8.5	0.0	2.9	15.7	0.1
Queue Length 50th (ft)		11			20		7	90	0	2	275	0
Queue Length 95th (ft)		56	1		62		17	295	0	6	355	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		434			334		501	1409	1229	663	1344	1189
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		0.27			0.27		0.16	0.49	0.02	0.04	0.63	0.02
Intersection Summary	و المراجع ال			84.	1. <sup>1</sup> . 45	Se - 1		- 1 · · ·		5 11 23		

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Area Type: Other Cycle Length: 80 Actuated Cycle Length: 64.4 Natural Cycle: 60

Control Type: Actuated-Uncoordinated

₩ø1	<b>1</b> ø2	- <b>A</b> 04
14s	50 s	16 s
<b>1</b> Ø5		<b>₹</b> Ø8
145	50.s	16 s

<u>`</u>	٨	<u> </u>	~	4	+	*	-	1	-	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4		ሻ	ŕ	۲	۲	· • •	۲
Traffic Volume (vph)	12	13	79	33	11	35	70	615	25	20	677	17
Future Volume (vph)	12	13	79	33	11	35	70	615	25	20	677	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	L _ S P	0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1809			1867		1805	1900	1615	1805	1881	1615
Flt Permitted		0.95			0.76		0.17	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)		1738	1998.0	π <i>4</i> . Ξ 3	1450		319	1900	1615	625	1881	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	14	15	90	38	13	40	79	691	28	25	846	21
RTOR Reduction (vph)	0	80	0	0	35	0	0	0	10	0	0	8
Lane Group Flow (vph)	0	39	0	0	56	0	79	691	18	25	846	13
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		6.0			6.0		48.7	43.4	43.4	42.1	40.1	40.1
Effective Green, g (s)		8.0			8.0		52.7	45.4	45.4	46.1	42.1	42.1
Actuated g/C Ratio		0.12			0.12		0.76	0.65	0.65	0.66	0.61	0.61
Clearance Time (s)		6.0			6.0	stration.	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	Saus al	200			167		398	1242	1056	483	1141	979
v/s Ratio Prot							c0.02	c0.36		0.00	c0.45	
v/s Ratio Perm		0.02			c0.04		0.13		0.01	0.03	v. 1 iz	0.01
v/c Ratio		0.20			0.33		0.20	0.56	0.02	0.05	0.74	0.01
Uniform Delay, d1		27.8			28.2		6.6	6.5	4.2	4.4	9.8	5.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5			1.2		0.2	0.5	0.0	0.0	2.6	0.0
Delay (s)		28.3			29.4		6.9	7.1	4.2	4.4	12.4	5.4
Level of Service	1	С		4 J. Sv	С		Α	Α	А	Α	В	A
Approach Delay (s)		28.3			29.4			6.9			12.0	
Approach LOS	10 N N	С		2, -:	С		5.00	A			В	
Intersection Summary		art 16	44.7	11-1-1	014 0000		0		D			
HCM 2000 Control Delay			11.7	Н	CM 2000	Level of	Service	1. 195	В			
HCM 2000 Volume to Capac	city ratio		0.62			N			40.0			
Actuated Cycle Length (s)			69.4		um of lost				12.0			
Intersection Capacity Utilizat Analysis Period (min)	tion		61.0% 15	IC	CU Level o	or Service	1.0		В		C 705 S	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$		۲	1	7	٦	1	7
Traffic Volume (vph)	19	43	139	29	8	15	22	577	34	17	1043	5
Future Volume (vph)	19	43	139	29	8	15	22	577	34	17	1043	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0	1.2	0	100		100	60	2.3	60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25		1000	25			25		IV
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	1.1.5	- 16 5 2	30			30	1.1		30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)	N. 7. 17 V	13.2	6et		15.8	Contract.		51.1	1	5 7	14.2	11,12
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	231	- 0	0	63	0	24	620	37	18	1110	5
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2	Sec. 19	1	6	Sec.
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	1.12	110					Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.64			0.49		0.09	0.49	0.04	0.03	0.92	0.00
Control Delay		23.5			36.5		3.4	7.4	0.1	2.9	27.7	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1122	23.5			36.5		3.4	7.4	0.1	2.9	27.7	0.0
Queue Length 50th (ft)		40			16		2	91	0	2	280	0.0
Queue Length 95th (ft)		114			52		7	265	0	6	#835	Ű
Internal Link Dist (ft)		499			616			2169	v	v	546	•
Turn Bay Length (ft)		400	1.1		010		100	2100	100	60	010	60
Base Capacity (vph)		396			144		323	1278	955	651	1206	1127
Starvation Cap Reductn		0			0	1.20	0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0	12 6/16		0		0	0	0	0	0	0
Reduced v/c Ratio		0.58	11		0.44		0.07	0.49	0.04	0.03	0.92	0.00
Intersection Summary	-2 (	0.00	10.7 m			100	0.01	0.10	0.01	0.00	0.02	5.00
and over our intervent												

Lanes, Volumes, Timings AJA

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Area Type:	Other			
Cycle Length: 80				
Actuated Cycle Leng	th: 70.9			
Natural Cycle: 90				
Control Type: Actuate	ed-Uncoordinated			
# 95th percentile vo	dume exceeds capacity, queu	e may be longer.		
Queue shown is n	naximum after two cycles.			

V <sub>Ø1</sub>	1 ø2	
145	50 s	16 s
<b>1</b> Ø5	↓ Ø6	<b>₹</b> Ø8
145	50 s	16 s

. <u> </u>	۶	-	7	4	+	*	1	†	1	1	Ļ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		٦	1	7	<u>۳</u>	1	7
Traffic Volume (vph)	19	43	139	29	8	15	22	577	34	17	1043	5
Future Volume (vph)	19	43	139	29	8	15	22	577	34	17	1043	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0		1.20.74	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	-	0.91		100	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	I PI DI PI	1803	Sec. 2		1848	1817	1687	1810	1302	1805	1792	1615
Flt Permitted		0.96			0.40		0.08	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)		1746	a., 19 a.,		759		142	1810	1302	679	1792	1615
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	22	49	160	35	10	18	24	620	37	18	1110	5
RTOR Reduction (vph)	0	102	0	0	15	0	0	0	13	0	0	2
Lane Group Flow (vph)	0	129	0	0	48	0	24	620	24	18	1110	3
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		10.14	2		2	6		6
Actuated Green, G (s)	•	8.6			8.6		50.5	48.1	48.1	47.9	46.8	46.8
Effective Green, g (s)		10.6	1	1	10.6		54.5	50.1	50.1	51.9	48.8	48.8
Actuated g/C Ratio		0.14			0.14		0.72	0.66	0.66	0.68	0.64	0.64
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		244			106	TALL I	191	1196	860	510	1153	1039
v/s Ratio Prot		611			100		c0.01	0.34		0.00	c0.62	
v/s Ratio Perm		c0.07		1.0.0	0.06		0.08	0101	0.02	0.02	00102	0.00
v/c Ratio		0.53			0.45		0.13	0.52	0.03	0.04	0.96	0.00
Uniform Delay, d1		30.3	-		29.9	Q-1-11	14.3	6.6	4.4	4.3	12.6	4.8
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.1			3.0		0.3	0.4	0.0	0.0	18.1	0.0
Delay (s)		32.3			32.9		14.6	7.0	4.5	4.3	30.8	4.8
Level of Service		C			C		B	A	A	A	C	A
Approach Delay (s)		32.3			32.9			7.1			30.2	
Approach LOS		C			C			A			C	
Intersection Summary	AL	10		1.55		1.1	1451		C	43.	glu y <sup>ri</sup> s	in the second
HCM 2000 Control Delay			23.1	H	CM 2000	Level of	Service	2.7	С	- 20	1	1.00
HCM 2000 Volume to Capacity	ratio		0.83									
Actuated Cycle Length (s)			75.8	Su	um of lost	time (s)			12.0			100
Intersection Capacity Utilization	1		73.4%		U Level o		;		D			
Analysis Period (min)			15									

	٨	-	7	*	-	•	1	†	1	1	Ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			44		7	1	1	٦	1	1
Traffic Volume (vph)	16	15	46	56	31	36	129	1004	33	24	668	28
Future Volume (vph)	16	15	46	56	31	36	129	1004	33	24	668	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0	11,2,5	0	100	No.	100	60	5.5710	60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25	1000	1.2.2.3	25	1 2 2 2		25		1.41
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	10 m		30			30	1991		30	F
Link Distance (ft)		579			696			2249			626	
Travel Time (s)	1.200	13.2	215		15.8		1	51.1		1	14.2	1.21
Peak Hour Factor	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	164	0	143	1116	37	27	759	32
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5.5 M.L.	4	in a lite		8	- 2-21	5	2	in Duri	1	6	-
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4	131	8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0	100	16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0	1.5	10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0	/18 = <sub>A</sub>	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	1.5.5						Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	100	None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.30			0.62		0.31	0.89	0.03	0.09	0.69	0.03
Control Delay		17.3			37.4		4.7	23.9	0.1	3.6	16.0	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		17.3	5.1		37.4	100	4.7	23.9	0.1	3.6	16.0	0.1
Queue Length 50th (ft)		14			56		15	272	0	3	245	0
Queue Length 95th (ft)	222	51			103		28	#826	0	8	365	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)			Test		1.2.4	2	100	- C- C- C-	100	60		60
Base Capacity (vph)		321			278		476	1252	1126	341	1224	1103
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	1.1		0		Ő	Ű	Ũ	Ũ	0	Ő
Reduced v/c Ratio		0.29			0.59		0.30	0.89	0.03	0.08	0.62	0.03
Intersection Summary			1991		1933		.2.2	- 10	1.		. sal	

Lanes, Volumes, Timings AJA

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Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length	73
Natural Cycle: 90	
Control Type: Actuated	J-Uncoordinated
# 95th percentile volu	ume exceeds capacity, queue may be longer.
Queue shown is ma	aximum after two cycles.

₩ø1	1 Ø2	- <b>1</b> 04
14 s	50 s	16 s
<b>1</b> Ø5	↓ Ø6	<b>▼</b> <i>ø</i> 8
14s	50 \$	16 s

	٨	-	$\mathbf{F}$	4	+	*	1	†	1	1	Ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		ሻ	1	۲	×	†	7
Traffic Volume (vph)	16	15	46	56	31	36	129	1004	33	24	668	28
Future Volume (vph)	16	15	46	56	31	36	129	1004	33	24	668	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1844			1881		1805	1863	1615	1805	1863	1615
Flt Permitted		0.90			0.82		0.21	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)		1670			1573		390	1863	1615	167	1863	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Adj. Flow (vph)	19	18	55	75	41	48	143	1116	37	27	759	32
RTOR Reduction (vph)	0	47	0	0	19	0	0	0	13	0	0	13
Lane Group Flow (vph)	0	45	0	0	145	0	143	1116	24	27	759	19
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		9.4			9.4		53.0	47.1	47.1	45.8	43.5	43.5
Effective Green, g (s)		11.4			11.4		57.0	49.1	49.1	49.8	45.5	45.5
Actuated g/C Ratio		0.15			0.15		0.74	0.64	0.64	0.65	0.59	0.59
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	3	247			233		435	1191	1032	200	1103	956
v/s Ratio Prot							c0.03	c0.60		0.01	0.41	
v/s Ratio Perm		0.03			c0.09		0.21		0.01	0.08		0.01
v/c Ratio		0.18			0.62		0.33	0.94	0.02	0.14	0.69	0.02
Uniform Delay, d1		28.6			30.7		6.9	12.5	5.1	14.3	10.8	6.5
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4			5.1		0.4	13.5	0.0	0.3	1.8	0.0
Delay (s)		29.0			35.8		7.3	26.0	5.1	14.6	12.6	6.5
Level of Service		С			D		Α	С	A	В	В	A
Approach Delay (s)		29.0			35.8			23.3			12.4	
Approach LOS	en i G	С	8. S.	1.000	D			С			В	
Intersection Summary	T. 125	1.45	8 10				1.1.254			1213	1	
HCM 2000 Control Delay			20.6	H	CM 2000	Level of	Service		С			1.1
HCM 2000 Volume to Capa	city ratio		0.85						40.0			
Actuated Cycle Length (s)		459 B B	76.8		um of lost				12.0			1.00
Intersection Capacity Utiliza Analysis Period (min)	ition		80.6% 15	IC	U Level a	f Service	1		D	na his		- Sure

	٨	-	-	*	+	*	1	1	r	1	Ŧ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$		1	1	7	ሻ	1	7
Traffic Volume (vph)	12	13	82	39	11	35	73	641	30	20	705	17
Future Volume (vph)	12	13	82	39	11	35	73	641	30	20	705	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0	1.1.1	0	0		0	100	1 8 C	100	60	4. E. S.	60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25		1221	25	1241		25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	P.A. 1	30			30	104	5. C. E.	30		i - H	30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2	2		15.8	1.112		51.1			14.2	- 11, 111
Peak Hour Factor	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	122	0	0	98	0	82	720	34	25	881	21
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8	F 1995	5	2		1	6	- 11 N
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase											-	
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0	1.2	8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0	1 - 1 <sup>1</sup> 1	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0		2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0		14	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.34			0.39		0.19	0.51	0.03	0.04	0.72	0.02
Control Delay		14.2			25.5		3.6	8.8	0.0	2.9	16.6	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		14.2			25.5		3.6	8.8	0.0	2.9	16.6	0.1
Queue Length 50th (ft)		12			27		8	103	0	2	308	0
Queue Length 95th (ft)		56			69		17	315	Ŭ	6	382	Ő
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)	12.2	400		4.22	010		100	2100	100	60	010	60
Base Capacity (vph)		423			308		476	1402	1224	641	1306	1159
Starvation Cap Reductn					0	- 1 - 1 - 1	0	0	0	0	0	0
Spillback Cap Reductn		0		1002	0		0	0	0	0	0	0
Storage Cap Reductin		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.29			0.32		0.17	0.51	0.03	0.04	0.67	0.02
Intersection Summary		0.20	1.00	and the second second	U.UL	and the second	U. T	0.01	0.00	UUT	0.01	0.02
interocesofi cuminary	and the second second											

Lanes, Volumes, Timings AJA

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Area Type:

Cycle Length: 80 Actuated Cycle Length: 66.6 Natural Cycle: 60

Other

Control Type: Actuated-Uncoordinated

V <sub>Ø1</sub>	< <b>↑</b> ø2	
145	50 s	16 s
<b>1</b> Ø5		<b>₹</b> Ø8
145	50 s	16 s

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		÷	_		\$		٦	1	۲	ሻ	1	۲
Traffic Volume (vph)	12	13	82	39	11	35	73	641	30	20	705	17
Future Volume (vph)	12	13	82	39	11	35	73	641	30	20	705	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1808			1872		1805	1900	1615	1805	1881	1615
FIt Permitted		0.95			0.72		0.15	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)		1734		1.00	1385		291	1900	1615	593	1881	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	14	15	93	45	13	40	82	720	34	25	881	21
RTOR Reduction (vph)	0	82	0	0	33	0	0	0	12	0	0	8
Lane Group Flow (vph)	0	40	0	0	65	0	82	720	22	25	881	13
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		6.3			6.3		50.6	45.3	45.3	44.0	42.0	42.0
Effective Green, g (s)		8.3			8.3		54.6	47.3	47.3	48.0	44.0	44.0
Actuated g/C Ratio		0.12			0.12		0.76	0.66	0.66	0.67	0.61	0.61
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		201			160		376	1255	1066	465	1155	992
v/s Ratio Prot							c0.02	c0.38		0.00	c0.47	
v/s Ratio Perm		0.02			c0.05		0.14		0.01	0.03		0.01
v/c Ratio		0.20			0.41		0.22	0.57	0.02	0.05	0.76	0.01
Uniform Delay, d1		28.6			29.4		7.4	6.6	4.2	4.5	10.0	5.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5			1.7		0.3	0.6	0.0	0.0	3.0	0.0
Delay (s)		29.1			31.1		7.7	7.3	4.2	4.6	13.1	5.4
Level of Service		С			С		Α	Α	Α	А	В	A
Approach Delay (s)		29.1			31.1			7.2			12.7	
Approach LOS		С			С			А			В	100
Intersection Summary	100	264		Pick.		747	LITER.	14	<u>1-5-</u>			
HCM 2000 Control Delay	Page 3		12.3	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.65									
Actuated Cycle Length (s)			71.6		um of lost				12.0			
Intersection Capacity Utilizat Analysis Period (min)	tion		62.8% 15	IC	U Level o	f Service		1	В			1.12

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		ኘ	1	1	۲	1	1
Traffic Volume (vph)	21	48	146	28	9	17	22	643	31	19	1095	6
Future Volume (vph)	21	48	146	28	9	17	22	643	31	19	1095	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0	1.1.1.1.1.1.1.1	0	0	The second	0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	·		25	- 13 a.	1000	25	ie – T		25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	17.00		30	-7.5 0		30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)	1.0	13.2	1727	10.00	15.8			51.1			14.2	
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	2%	0.02	0%	9%	7%	5%	24%	0.04	6%	0.04
Shared Lane Traffic (%)	070	070	2 /0	070	070	570	770	070	27/0	070	070	070
	0	247	0	0	66	0	24	691	33	20	1165	6
Lane Group Flow (vph)			U			U					the second s	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8	•		2	•	2	6	•	6
Detector Phase	4	4	100.0	8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	-27-00	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0	8 N I	16.0	16.0	100	14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0		23	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	1	1.1	1. 1. 1.	1. 2010			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None	/	None	Min	Min	None	Min	Min
v/c Ratio		0.68			0.47		0.09	0.57	0.04	0.04	0.97	0.01
Control Delay		26.5	5 - 5		33.3	- Y24 -	3.5	10.2	0.1	2.9	36.1	0.0
Queue Delay	and an interaction of the	0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.5	10.00		33.3	11.1	3.5	10.2	0.1	2.9	36.1	0.0
Queue Length 50th (ft)	14	48			16		2	10.2	0.1	2.5	325	0.0
		#131			53		7	315	0	6	#893	0
Queue Length 95th (ft) Internal Link Dist (ft)		499			616		1	2169	U	0	#693 546	U
		499		-	010	No.	100	2109	400	00	040	0
Turn Bay Length (ft)		202			454		100	1040	100	60	4400	60
Base Capacity (vph)		393	_		154		328	1212	912	578	1198	1120
Starvation Cap Reductn		0			0	1	0	0	0	0	0	0
Spillback Cap Reductn		0			0	-	0	0	0	0	0	0
Storage Cap Reductn		0	1		0	1211-	0	0	0	0	0	0
Reduced v/c Ratio		0.63			0.43		0.07	0.57	0.04	0.03	0.97	0.01
Intersection Summary	2 4 2	1312	T Day	15.28	2000	20,15	12.00	1.0 - 1	10.5	1.5		

Area Type: Cycle Length: 80

Actuated Cycle Length: 70.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

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

Other

<b>1</b> 01	1ø2	
14 s	50 s	16 s
<b>1</b> Ø5	<b>↓</b> Ø6	<b>▼</b> Ø8
145	50 s	16 s

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		ሻ	- <b>- †</b>	<b>آ</b> ر	٦	<b>•</b>	7
Traffic Volume (vph)	21	48	146	28	9	17	22	643	31	19	1095	6
Future Volume (vph)	21	48	146	28	9	17	22	643	31	19	1095	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)	- 12 L	4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.91			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1807			1838		1687	1810	1302	1805	1792	1615
Flt Permitted		0.96			0.42		0.08	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)		1748		10.00	800		150	1810	1302	556	1792	1615
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	24	55	168	34	11	21	24	691	33	20	1165	6
RTOR Reduction (vph)	0	96	0	0	18	0	0	0	12	0	0	2
Lane Group Flow (vph)	0	151	0	0	48	0	24	691	21	20	1165	4
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		8.9			8.9		47.4	45.2	45.2	47.4	45.2	45.2
Effective Green, g (s)		10.9			10.9	5 3	51.4	47.2	47.2	51.4	47.2	47.2
Actuated g/C Ratio		0.15			0.15		0.69	0.64	0.64	0.69	0.64	0.64
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		256			117		190	1149	827	455	1138	1025
v/s Ratio Prot							c0.01	0.38		0.00	c0.65	
v/s Ratio Perm		c0.09			0.06		0.08	а.	0.02	0.03	1.1	0.00
v/c Ratio		0.59			0.41		0.13	0.60	0.03	0.04	1.02	0.00
Uniform Delay, d1		29.6			28.8		16.3	8.0	5.0	4.7	13.5	5.0
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		3.4			2.3		0.3	0.9	0.0	0.0	32.9	0.0
Delay (s)		33.0			31.1		16.6	8.9	5.0	4.8	46.4	5.0
Level of Service		С			С		В	Α	A	A	D	A
Approach Delay (s)		33.0			31.1			9.0			45.5	
Approach LOS		С			С			A	- Maria		D	
Intersection Summary	12		- 11 - +			11 may		1.00		J. L. Y	-1 S-	
HCM 2000 Control Delay		9 - P	31.6	H	CM 2000	Level of	Service		С			
HCM 2000 Volume to Capa	city ratio		0.89									_
Actuated Cycle Length (s)			74.3		im of lost				12.0			19. Sec.
Intersection Capacity Utiliza Analysis Period (min)	tion		77.0% 15	IC	U Level o	f Service			D	1900		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		×,	1	1	ኘ	1	7
Traffic Volume (vph)	18	17	47	56	35	40	134	1049	31	27	725	31
Future Volume (vph)	18	17	47	56	35	40	134	1049	31	27	725	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0	11.0	0	0	1.6.12.5	0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	1 - 1		25	- (		25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	51 - 41 - 5	30	1.1	1917	30		1.11	30	S	-	30	-
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			51.1	- 1 - C - C	1-1-1-	14.2	
Peak Hour Factor	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	97	0	0	175	0	149	1166	34	31	824	35
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1 onn	4	100		8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase								_	_			
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0	1. 1. 10.	16.0	16.0	_	14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	10	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	2.0	-2.0		2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		7.0					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio	None	0.32		Hono	0.65		0.37	0.94	0.03	0.11	0.81	0.04
Control Delay		18.4			39.6		5.7	28.9	0.1	3.7	21.0	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.4			39.6		5.7	28.9	0.1	3.7	21.0	0.1
Queue Length 50th (ft)		16			66		16	304	0	3	288	0
Queue Length 95th (ft)		54			110	M (1)	29	#882	0	8	424	0
Internal Link Dist (ft)		499			616		20	2169	v	Ŭ	546	U
		433			010	1.1	100	2100	100	60	040	60
Turn Bay Length (ft)		319			280		414	1247	1122	346	1189	1075
Base Capacity (vph)					200	1	0	0	0	0+0	0	0
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			0.63		0.36	0.94	0.03	0.09	0.69	0.03
Reduced v/c Ratio		0.30			0.03		0.30	0.94	0.03	0.09	0.05	0.05
Intersection Summary		N . 8		1. 1.	-10 C -		1.10			1.	100	

Lanes, Volumes, Timings AJA

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Area Type: Cycle Length: 80

Actuated Cycle Length: 72.7 Natural Cycle: 90

Control Type: Actuated-Uncoordinated

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

Other

V <sub>Ø1</sub>	1 <sub>02</sub>	
145	50 s	16.5
<b>1</b> Ø5	↓ Ø6	<b>▼</b> Ø8
145	50 s	16 5

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$		ሻ	1	٣	ሻ	1	1
Traffic Volume (vph)	18	17	47	56	35	40	134	1049	31	27	725	31
Future Volume (vph)	18	17	47	56	35	40	134	1049	31	27	725	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0	11		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1849			1880		1805	1863	1615	1805	1863	1615
FIt Permitted		0.88			0.82		0.15	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)		1641	0.0		1572		283	1863	1615	174	1863	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Adj. Flow (vph)	21	20	56	75	47	53	149	1166	34	31	824	35
RTOR Reduction (vph)	0	48	0	0	20	0	0	0	12	0	0	15
Lane Group Flow (vph)	0	49	0	0	155	0	149	1166	22	31	824	20
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Turn Type	Perm	NA	101-14	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		9.5			9.5		54.0	46.7	46.7	44.0	41.7	41.7
Effective Green, g (s)		11.5			11.5		57.0	48.7	48.7	48.0	43.7	43.7
Actuated g/C Ratio		0.15			0.15		0.75	0.64	0.64	0.63	0.57	0.57
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1.1	246			236		395	1185	1028	200	1064	922
v/s Ratio Prot							c0.05	c0.63		0.01	0.44	
v/s Ratio Perm	12 î.	0.03			c0.10		0.23		0.01	0.09		0.01
v/c Ratio		0.20			0.66		0.38	0.98	0.02	0.15	0.77	0.02
Uniform Delay, d1		28.5			30.6		9.1	13.5	5.1	15.9	12.6	7.1
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4			6.5		0.6	22.2	0.0	0.4	3.6	0.0
Delay (s)		28.9			37.1		9.7	35.7	5.1	16.2	16.2	7.1
Level of Service		С			D		Α	D	Α	В	В	A
Approach Delay (s)		28.9			37.1			32.0			15.8	
Approach LOS		С			D			С	1. 1	i di B	В	
Intersection Summary			18122	4- <u>11</u>	rict I	100		77 - P	143211			
HCM 2000 Control Delay			26.5	H	CM 2000	Level of	Service		С		16-31	
HCM 2000 Volume to Capacit	ty ratio		0.89									
Actuated Cycle Length (s)			76.5		um of lost				12.0			
Intersection Capacity Utilization	on		82.9%	IC	U Level o	f Service			E			
Analysis Period (min)			15									

	٦	-	$\rightarrow$	4	-	*	1	1	1	1	Ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		ሻ	1	۲	٦	1	۳
Traffic Volume (vph)	13	14	87	37	12	39	77	679	28	22	747	19
Future Volume (vph)	13	14	87	37	12	39	77	679	28	22	747	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0		0	0	a Sul	0	100	11 100	100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	A		25	11.5	1.12.1	25		101 - 1	25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30		1 . A L	30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8	12.5		51.1	100	11/2/10	14.2	1.2.1
Peak Hour Factor	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)	070	070	070	070	070	070	0,0	0,0	0,0	0,0		0.0
Lane Group Flow (vph)	0	130	0	0	102	0	87	763	31	28	934	24
Turn Type	Perm	NA	v	Perm	NA	U	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	I CIIII	4		T CHIII	8	1. C. 1.	5	2	T OIIII	1	6	T ONI
Permitted Phases	4			8	Ű		2	-	2	6	U	6
Detector Phase	4	4		8	8		5	2	2	1	6	6
Switch Phase	4	4	st - s f c	0	0		5	2	2	_	0	U
	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Initial (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Minimum Split (s)		16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (s)	16.0 20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Total Split (%)				10.0	10.0%		8.0	44.0	44.0	8.0	44.0	44.0
Maximum Green (s)	10.0	10.0		4.0	4.0		4.0	44.0	44.0	4.0	44.0	44.0
Yellow Time (s)	4.0	4.0				110.00	2.0	2.0	2.0	2.0	2.0	2.0
All-Red Time (s)	2.0	2.0		2.0	2.0	10.0						-2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag					_		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				0.0			Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.37			0.42		0.21	0.54	0.03	0.05	0.75	0.02
Control Delay	6 - E	14.5			26.0		3.8	9.3	0.0	2.9	18.2	0.1
Queue Delay		0.0			0.0	_	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		14.5			26.0		3.8	9.3	0.0	2.9	18.2	0.1
Queue Length 50th (ft)		14			27		8	113	0	3	345	0
Queue Length 95th (ft)		59			70		18	348	0	7	431	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		412			291		441	1410	1230	609	1284	1141
Starvation Cap Reductn		0	19		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		0.32			0.35		0.20	0.54	0.03	0.05	0.73	0.02
Intersection Summary	477				A. 5%-	#11 1	1.12			7 - D - T		V and

Lanes, Volumes, Timings AJA

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Area Type: Other Cycle Length: 80 Actuated Cycle Length: 68.4 Natural Cycle: 60 Control Type: Actuated-Uncoordinated

\v_ø₁	1ø2	
14s	50 s	16 s
Ø5	<b>↓</b> Ø6	<b>₹</b> _Ø8
145	50 s	16 s

	۶	-+	7	4	-	*	1	1	1	1	Ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			\$		η	Ŷ	7	۲	<b>•</b>	1
Traffic Volume (vph)	13	14	87	37	12	39	77	679	28	22	747	19
Future Volume (vph)	13	14	87	37	12	39	77	679	28	22	747	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1808			1867		1805	1900	1615	1805	1881	1615
Flt Permitted		0.95			0.70		0.13	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)		1723			1336	3/17	246	1900	1615	548	1881	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	15	16	99	43	14	45	87	763	31	28	934	24
RTOR Reduction (vph)	0	88	0	0	37	0	0	0	10	0	0	9
Lane Group Flow (vph)	0	42	0	0	65	0	87	763	21	28	934	15
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		6.3			6.3		52.4	47.0	47.0	45.8	43.7	43.7
Effective Green, g (s)		8.3			8.3		56.4	49.0	49.0	49.8	45.7	45.7
Actuated g/C Ratio		0.11			0.11		0.77	0.67	0.67	0.68	0.62	0.62
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	- Fi - Fi	194			151		346	1268	1078	442	1171	1005
v/s Ratio Prot							c0.03	c0.40		0.00	c0.50	
v/s Ratio Perm		0.02			c0.05		0.17		0.01	0.04		0.01
v/c Ratio		0.22			0.43		0.25	0.60	0.02	0.06	0.80	0.01
Uniform Delay, d1		29.6			30.3		8.8	6.8	4.1	4.7	10.4	5.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.6			2.0		0.4	0.8	0.0	0.1	3.9	0.0
Delay (s)		30.2			32.3		9.2	7.6	4.1	4.7	14.3	5.3
Level of Service		С			С		A	A	Α	А	В	A
Approach Delay (s)		30.2			32.3			7.6			13.8	
Approach LOS	1.6.6.5.5	С		- 12-	С		-1.12	A			В	n ± 1.
Intersection Summary		12.27	40.4		014 0000				124		100 100	
HCM 2000 Control Delay			13.1	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.68						40.0			
Actuated Cycle Length (s)			73.4		um of lost				12.0			
Intersection Capacity Utiliza Analysis Period (min)	ition		65.3% 15	IC	U Level o	t Service			С			

	الر	-	$\mathbf{i}$	4	-	*	1	<b>†</b>	1	1	Ļ	-
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Lane Configurations		\$			\$		٦	1	7	ሻ	1	Ĩ
Traffic Volume (vph)	21	48	153	32	9	17	24	664	37	19	1145	
Future Volume (vph)	21	48	153	32	9	17	24	664	37	19	1145	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Frt		0.907			0.960				0.850			0.85
Flt Protected		0.995			0.973	1.1	0.950	- 10 M	a start	0.950		
Satd. Flow (prot)	0	1804	0	0	1844	0	1687	1810	1302	1805	1792	161
Fit Permitted		0.966	5 M 1	1.1	0.371	- 11	0.085		1.1.1	0.278		
Satd. Flow (perm)	0	1752	0	0	703	0	151	1810	1302	528	1792	161
Satd. Flow (RTOR)		118			21				123	1.5	1.12	12
Adj. Flow (vph)	24	55	176	39	11	21	26	714	40	20	1218	
Lane Group Flow (vph)	0	255	0	0	71	0	26	714	40	20	1218	1 84
Turn Type	Perm	NA	0	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perr
Protected Phases	T GHM	4		Tom	8		5	2	1 onn	p.m. pt 1	6	
Permitted Phases	4			8	· ·		2		2	6	•	
Detector Phase	4	4		8	8		5	2	2	1	6	
Switch Phase		- T		U	U		0	-	1		•	
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.
Total Split (s)	16.0	16.0	0.01-012	16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Total Split (%)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.
Maximum Green (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.
Yellow Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
All-Red Time (s)	2.0	-2.0	1000	2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Lost Time Adjust (s)	V 2013				-2.0		4.0	4.0	4.0	4.0	4.0	-2.0
Total Lost Time (s)		4.0	12 1		4.0		Lead			4.0 Lead		
Lead/Lag								Lag Yes	Lag Yes	Yes	Lag Yes	La
Lead-Lag Optimize?		2.0		2.0	2.0		Yes			3.0	3.0	3.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0			
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Mir
v/c Ratio		0.69			0.56		0.09	0.59	0.04	0.04	1.02	0.0
Control Delay		26.6			41.2		3.5	10.6	0.1	2.9	47.5	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	Carl Harris	26.6			41.2		3.5	10.6	0.1	2.9	47.5	0.0
Queue Length 50th (ft)		50			18		3	115	0	2	371	1
Queue Length 95th (ft)		#138			#65		8	333	0	6	#950	(
Internal Link Dist (ft)		499			616		100	2169	400		546	04
Turn Bay Length (ft)							100	1000	100	60	4405	60
Base Capacity (vph)		398			138		328	1209	910	562	1195	1118
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		0.64			0.51		0.08	0.59	0.04	0.04	1.02	0.01
ntersection Summary		21.54	27	Mr. R.	2		- 74 - 74 - E			( - ) - <sup>1</sup>	100	
Cycle Length: 80												
Actuated Cycle Length: 70.4	1											
Natural Cycle: 90												
Control Type: Actuated-Unc	coordinated										2 Million (	

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

V <sub>Ø1</sub>	d max 2 max	
14s	50 s	16 s
<b>1</b> Ø5	↓ Ø6	<b>▼</b> Ø8
14.5	50 s	16.5

	۶	-	7	*	+	*	1	†	1	1	Ŧ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		ሻ	· • •	r.	ሻ	<b>†</b>	7
Traffic Volume (vph)	21	48	153	32	9	17	24	664	37	19	1145	6
Future Volume (vph)	21	48	153	32	9	17	24	664	37	19	1145	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.91			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.97		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1804			1845		1687	1810	1302	1805	1792	1615
Flt Permitted		0.97			0.37		0.09	1.00	1.00	0.28	1.00	1.00
Satd. Flow (perm)		1751			702		151	1810	1302	528	1792	1615
Peak-hour factor, PHF	0.87	0.87	0.87	0.82	0.82	0.82	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	24	55	176	39	11	21	26	714	40	20	1218	6
RTOR Reduction (vph)	0	101	0	0	18	0	0	0	15	0	0	2
Lane Group Flow (vph)	0	154	0	0	53	0	26	714	25	20	1218	4
Heavy Vehicles (%)	0%	0%	2%	0%	0%	9%	7%	5%	24%	0%	6%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		8.9			8.9		47.2	45.0	45.0	47.2	45.0	45.0
Effective Green, g (s)		10.9			10.9		51.2	47.0	47.0	51.2	47.0	47.0
Actuated g/C Ratio		0.15			0.15		0.69	0.63	0.63	0.69	0.63	0.63
Clearance Time (s)		6.0	- 1. A.	1000	6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		257			103		191	1148	825	437	1136	1024
v/s Ratio Prot							c0.01	0.39		0.00	c0.68	
v/s Ratio Perm		c0.09		S	0.08		0.09		0.02	0.03		0.00
v/c Ratio		0.60			0.52		0.14	0.62	0.03	0.05	1.07	0.00
Uniform Delay, d1		29.6			29.2		16.3	8.2	5.1	4.9	13.5	5.0
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		3.9			4.3		0.3	1.1	0.0	0.0	48.3	0.0
Delay (s)		33.5			33.5		16.6	9.2	5.1	4.9	61.9	5.0
Level of Service		С			С		В	A	А	А	E	A
Approach Delay (s)		33.5			33.5			9.3			60.7	
Approach LOS		С			С			А			E	
Intersection Summary		1.21		14-74			110		- 14 K		141	183.0
HCM 2000 Control Delay			39.8	H	CM 2000	Level of	Service		D			
HCM 2000 Volume to Capacity	ratio		0.93									
Actuated Cycle Length (s)			74.1		um of lost		1.0		12.0			
Intersection Capacity Utilization			80.0%	IC	U Level o	of Service	)		D			
Analysis Period (min)			15									

	۶	-	1	1	+	*	1	Ť	1	1	Ļ	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		ሻ	Ŷ	7	ň	1	7
Traffic Volume (vph)	18	17	51	62	35	40	142	1103	36	27	756	31
Future Volume (vph)	18	17	51	62	35	40	142	1103	36	27	756	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	14	14	14	12	12	12	12	12	12
Storage Length (ft)	0	THE STATE	0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25	1		25	2 - A A I.		25			25		-1-1
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	EVENU
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2	A 14		15.8		11	51.1		20.00	14.2	
Peak Hour Factor	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Shared Lane Traffic (%)	070	070	070	070	070	470	070	2 /0	070	070	270	070
Lane Group Flow (vph)	0	102	0	0	183	0	158	1226	40	31	859	35
		NA	0	Perm	NA	U		NA	Perm	pm+pt	NA	Perm
Turn Type	Perm			Perm	NA 8		pm+pt	2	Fenn	pm+pt	6	Fenn
Protected Phases	-	4		0	0		5	2	2		0	G
Permitted Phases	4			8	0		2 5	2	2	6	0	6 6
Detector Phase	4	4		8	8		5	2	2	1	6	0
Switch Phase				= 0	5.0		5.0	10.0	10.0	5.0	40.0	40.0
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0	16.0	16.0
Total Split (s)	16.0	16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0		8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.33			0.71		0.42	0.98	0.04	0.11	0.83	0.04
Control Delay		18.2			44.6		7.6	36.3	0.1	3.7	22.6	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.2			44.6		7.6	36.3	0.1	3.7	22.6	0.1
Queue Length 50th (ft)		18			76		17	350	0	3	310	0
Queue Length 95th (ft)	ī '	55		A	#116		42	#947	0	8	458	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		318			267		392	1254	1128	338	1164	1055
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		0.32			0.69		0.40	0.98	0.04	0.09	0.74	0.03
		0.52			0.05		0.40	0.00	0.04	0.00	0.74	0.00
Intersection Summary	an in the first	1 - 1 - P		IRI, <sup>1</sup> 2	195		1. 20-	2,232	1221	Nine I.	7 23	10.01

Lanes, Volumes, Timings AJA

S:\Jobs\8188\Analysis\8188-2030PMBU.syn

Area Type:	Other			
Cycle Length: 80				
Actuated Cycle Len	gth: 74.3			
Natural Cycle: 90				
Control Type: Actua	ted-Uncoordinated			
# 95th percentile	olume exceeds capacity, o	queue may be longer.		
Queue shown is	maximum after two cycles.	i.		

V <sub>Ø1</sub>	1 m2	
14s	50 s	16 s
<b>1</b> Ø5	<b>↓</b> øs	<b>₹</b> _Ø8
145	50 s	16's

	×	-	7	*	+	*	1	1	1	4	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			\$		ሻ	1	ř	ሻ	1	7
Traffic Volume (vph)	18	17	51	62	35	40	142	1103	36	27	756	31
Future Volume (vph)	18	17	51	62	35	40	142	1103	36	27	756	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.92		1	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1844			1882	4 F	1805	1863	1615	1805	1863	1615
Flt Permitted		0.88			0.79		0.13	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)		1640	P <sup>LE</sup> x III	- 11	1530		251	1863	1615	169	1863	1615
Peak-hour factor, PHF	0.84	0.84	0.84	0.75	0.75	0.75	0.90	0.90	0.90	0.88	0.88	0.88
Adj. Flow (vph)	21	20	61	83	47	53	158	1226	40	31	859	35
RTOR Reduction (vph)	0	52	0	0	19	0	0	0	14	0	0	15
Lane Group Flow (vph)	0	50	0	0	164	0	158	1226	26	31	859	20
Heavy Vehicles (%)	0%	0%	0%	0%	0%	4%	0%	2%	0%	0%	2%	0%
Turn Type	Perm	NA	1	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		9.6			9.6		55.4	48.0	48.0	45.2	42.9	42.9
Effective Green, g (s)	1 - No. (1	11.6			11.6		58.3	50.0	50.0	49.2	44.9	44.9
Actuated g/C Ratio		0.15			0.15		0.75	0.64	0.64	0.63	0.58	0.58
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		244			227	1.20	375	1195	1036	197	1073	930
v/s Ratio Prot							c0.05	c0.66		0.01	0.46	
v/s Ratio Perm	1.1	0.03			c0.11		0.26		0.02	0.09		0.01
v/c Ratio		0.21			0.72		0.42	1.03	0.02	0.16	0.80	0.02
Uniform Delay, d1		29.1	2010	NO.	31.6		10.4	14.0	5.1	16.3	13.0	7.1
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4			10.8		0.8	32.8	0.0	0.4	4.4	0.0
Delay (s)		29.5			42.5		11.2	46.8	5.1	16.7	17.3	7.1
Level of Service	1.915	С			D		В	D	Α	В	В	Α
Approach Delay (s)		29.5			42.5			41.7			16.9	
Approach LOS	1. A.L.	С			D		14.30	D			В	
Intersection Summary	4		510			10103			A	N	54.53	
HCM 2000 Control Delay			32.6	H	CM 2000	Level of	Service		С			1998 (M.S.
HCM 2000 Volume to Capac	city ratio		0.94									
Actuated Cycle Length (s)			77.9		um of lost				12.0			
Intersection Capacity Utilizat Analysis Period (min)	tion		86.6% 15	IC	U Level o	f Service	1.29 m		E			

	۶	-	7	4	-	*	-	<b>†</b>	1	×	÷.	1
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SB
Lane Configurations		4			\$		ሻ	1	1	۲	1	i
Traffic Volume (vph)	13	14	90	43	12	39	80	705	33	22	775	1
Future Volume (vph)	13	14	90	43	12	39	80	705	33	22	775	1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Frt		0.896			0.944				0.850			0.85
Flt Protected		0.994	j		0.978	-	0.950			0.950		See la
Satd. Flow (prot)	0	1805	0	0	1871	0	1805	1900	1615	1805	1881	161
Flt Permitted		0.947			0.670	2110	0.113	1		0.270	11 <u>.</u>	8
Satd. Flow (perm)	0	1720	0	0	1282	0	215	1900	1615	513	1881	1615
Satd. Flow (RTOR)		102			38				123			123
Adj. Flow (vph)	15	16	102	49	14	45	90	792	37	28	969	24
Lane Group Flow (vph)	0	133	0	0	108	0	90	792	37	28	969	24
Turn Type	Perm	NA	U	Perm	NA	Ŭ	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	renn	4	87 / T	r enn	8		5	2	T OIL	1	6	1 OIII
Permitted Phases	4	-		8	U		2	2	2	6	U	6
	4	4		8	8		5	2	2	1	6	(
Detector Phase	4	4		0	0		J	2	2		U	
Switch Phase	5.0	50		5.0	5.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Initial (s)	5.0	5.0									16.0	16.0
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0	16.0	11.0		
Total Split (s)	16.0	16.0		16.0	16.0		14.0	50.0	50.0	14.0	50.0	50.0
Total Split (%)	20.0%	20.0%		20.0%	20.0%		17.5%	62.5%	62.5%	17.5%	62.5%	62.5%
Maximum Green (s)	10.0	10.0		10.0	10.0	e Nach Ti	8.0	44.0	44.0	8.0	44.0	44.0
Yellow Time (s)	4.0	4.0	_	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)		4.0	S.		4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		None	Min	Min	None	Min	Min
v/c Ratio		0.38			0.47		0.23	0.56	0.03	0.05	0.78	0.02
Control Delay		14.4			29.2		4.1	9.7	0.0	3.0	19.4	0.1
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		14.4			29.2		4.1	9.7	0.0	3.0	19.4	0.1
Queue Length 50th (ft)		14			32		9	128	0	3	382	0
Queue Length 95th (ft)		59			77		19	372	0	7	463	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		404			270		413	1410	1230	583	1264	1125
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		0.33			0.40		0.22	0.56	0.03	0.05	0.77	0.02
Intersection Summary		121) - J	1.1	911.7	Same s				524.	4-44	2012	
Cycle Length: 80												
Actuated Cycle Length: 69.9	i tetta											
Natural Cycle: 60												
Control Type: Actuated-Unco	ordinated						-11.1					

Splits and Phases:	1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road	
▶ <sub>Ø1</sub>	▲ Ø2	<b>∠</b> <sub>104</sub>
14s	50 s	16 s
<b>1</b> Ø5		<b>₹</b> Ø8
14s	50 5	16 5

	٨	-	7	4	+		1	†	1	1	Ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		\$			4		ሻ	1	7	ሻ	1	7
Traffic Volume (vph)	13	14	90	43	12	39	80	705	33	22	775	19
Future Volume (vph)	13	14	90	43	12	39	80	705	33	22	775	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	14	14	14	14	14	14	12	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1807			1870		1805	1900	1615	1805	1881	1615
Flt Permitted		0.95			0.67		0.11	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)		1721		here a	1282		215	1900	1615	514	1881	1615
Peak-hour factor, PHF	0.88	0.88	0.88	0.87	0.87	0.87	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	15	16	102	49	14	45	90	792	37	28	969	24
RTOR Reduction (vph)	0	90	0	0	34	0	0	0	12	0	0	9
Lane Group Flow (vph)	0	43	0	0	74	0	90	792	25	28	969	15
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		6.6			6.6		53.6	48.2	48.2	47.2	45.0	45.0
Effective Green, g (s)		8.6			8.6		57.6	50.2	50.2	51.2	47.0	47.0
Actuated g/C Ratio		0.11			0.11		0.77	0.67	0.67	0.68	0.63	0.63
Clearance Time (s)		6.0			6.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		197			147		322	1271	1080	423	1178	1012
v/s Ratio Prot							c0.03	0.42		0.00	c0.52	
v/s Ratio Perm		0.02			c0.06		0.19		0.02	0.04		0.01
v/c Ratio		0.22			0.51		0.28	0.62	0.02	0.07	0.82	0.01
Uniform Delay, d1		30.1			31.2		10.1	7.0	4.2	4.9	10.8	5.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.6			2.7		0.5	1.0	0.0	0.1	4.8	0.0
Delay (s)		30.7			33.9		10.6	8.0	4.2	5.0	15.5	5.3
Level of Service		С			С		В	А	Α	Α	В	A
Approach Delay (s)		30.7			33.9			8.1			15.0	
Approach LOS	1.45	С			С			Α			В	N.
Intersection Summary	15 L 51	6.5		14	1.0	A-11-11	114. 197	1. and		-	1.4	
HCM 2000 Control Delay			14.0	H	CM 2000	Level of	Service		В		12	5-1-1
HCM 2000 Volume to Capac	city ratio		0.72									
Actuated Cycle Length (s)			75.0		um of lost				12.0			1 1 2
Intersection Capacity Utilizat	tion		67.3%	IC	U Level o	f Service			С			
Analysis Period (min)			15				1.1.1.					

NH Route 125 at Scruton Pond Road

Intersection	3-1-1	7420	V.	1.113	1	1.5
Int Delay, s/veh	11.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	1	
Traffic Vol, veh/h	59	39	5	575	1103	12
Future Vol, veh/h	59	39	5	575	1103	12
Conflicting Peds, #/hr	0	0	0		0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-		-	-	5 <b>e</b> 3
Veh in Median Storage		-	-	0	0	
Grade, %	0		-	0	0	3 <b>4</b> 3
Peak Hour Factor	83	83	86	86	94	94
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	71	47	6	669	1173	13
Major/Minor	Minor2	51.5 J	Major1		Major2	P.10
Conflicting Flow All	1861	1180	1186	0		0
Stage 1	1180		-			
Stage 2	681	-	-	-		
Critical Hdwy	6.4	6.2	4.1			
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	1100	-	-	-
Follow-up Hdwy	3.5	3.3	2.2			
Pot Cap-1 Maneuver	81	234	596	7		-
Stage 1	295	-	-	( <del></del> )		
Stage 2	506	-		(m)		1.
Platoon blocked, %				343	-	
Mov Cap-1 Maneuver	80	234	596	1	-	
Mov Cap-2 Maneuver	80	-	-	1		
Stage 1	290			-		-
Stage 2	506					
Approach	EB		NB		SB	(
HCM Control Delay, s			0.1		0	10-21
HCM LOS	F		0.1		•	
Minor Lane/Major Mvm	t	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		596	-		-	-
HCM Lane V/C Ratio		0.01			-	-
HCM Control Delay (s)		11.1	0			
HCM Lane LOS			A	109.1 F		-
		B		7.3		
HCM 95th %tile Q(veh)	1.11	0	1.10	1.5	60) (10)	

2						
Intersection	74		15 14			
Int Delay, s/veh	2.8					
		500	MIDI	NDT	COT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	•	47	÷.	Ĵ.	00
Traffic Vol, veh/h	24	9	17	1089	618	66
Future Vol, veh/h	24	9	17	1089	618	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	1	None	-	None
Storage Length	0	R#4	-	-	-	
Veh in Median Storage				0	0	10.14
Grade, %	0	3 <del>6</del>	-	0	0	-
Peak Hour Factor	57	57	92	92	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mymt Flow	42	16	18	1184	665	71
and stated in Proc. and						
					1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Minor2		Major1		Major2	
Conflicting Flow All	1921	701	736	0	( <b>#</b> )	0
Stage 1	701		-	-	00 <u>-</u> 140	10.04
Stage 2	1220	-	-		-	-
Critical Hdwy	6.4	6.2	4.1	-		-
Critical Hdwy Stg 1	5.4	-	-	-	-	
Critical Hdwy Stg 2	5.4		-			-
Follow-up Hdwy	3.5	3.3	2.2	-		
Pot Cap-1 Maneuver	75	442	879	-	-	-
Stage 1	496	-	-	-		(#)
Stage 2	282		-			-
Platoon blocked, %	202			-	-	-
	71	442	879		1	
Mov Cap-1 Maneuver				110		
Mov Cap-2 Maneuver	71	-	•		-	
Stage 1	466		1			
Stage 2	282	-		( <b>#</b> )		
CALLER AND A		1.11.21	- 24			
Approach	EB		NB	Contraction of the	SB	12.4-
HCM Control Delay, s	95		0.1		0	
HCM LOS	F	1	0.1		v	
					100 (	
Minor Lane/Major Mvm		NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		879	-	92		-
HCM Lane V/C Ratio		0.021	-	0.629		-
HCM Control Delay (s)		9.2	0	95		-
HCM Lane LOS		A	A	F		-
HCM 95th %tile Q(veh)		0.1	-	3	-	-
		0.1		5	11-11	

Intersection		11 1	-	100		
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			÷.	1+	
Traffic Vol, veh/h	56	15	19	652	729	43
Future Vol, veh/h	56	15	19	652	729	43
Conflicting Peds, #/hr	0		0	0	0	0
Sign Control	Stop		Free	Free	Free	Free
RT Channelized	-		-		-	
Storage Length	0	-	-	-	-	-
Veh in Median Storage			-	0	0	1.75
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	92	92	85	85
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	76	20	21	709	858	51
	10	20	21	100	000	01
	Minor2		Major1		Major2	1
Conflicting Flow All	1635	884	909	0		0
Stage 1	884			-	-	
Stage 2	751	200	300		5 <b>4</b> 0	-
Critical Hdwy	6.4	6.2	4.1			
Critical Hdwy Stg 1	5.4	-	4	-	-	
Critical Hdwy Stg 2	5.4		-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	112	347	757	-		-
Stage 1	407	-	-	-		-
Stage 2	470		-	-	•	-
Platoon blocked, %				-		
Mov Cap-1 Maneuver	107	347	757	11.2	-	-
Mov Cap-2 Maneuver	107	-	-	-		-
Stage 1	388			-		
Stage 2	470	-	-	-		-
Slage 2	410					17.1
		= ~				
Approach	EB	to the	NB	14 11 1	SB	2
HCM Control Delay, s	94.1		0.3		0	
HCM LOS	F					
Minor Lane/Major Mvm		NBL	NET	EBLn1	SBT	SBR
Contraction of the second s						
Capacity (veh/h)		757	-	125		
HCM Lane V/C Ratio		0.027		0.768		7
HCM Control Delay (s)		9.9	0	94.1		-
HCM Lane LOS		A	A	F		×
HCM 95th %tile Q(veh)		0.1		4.5	*	•

Intersection						81,81
Int Delay, s/veh	12.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	In LOT 1	1400	र्स	1	<b>U</b> UI (
Traffic Vol, veh/h	59	39	5	593	1128	12
Future Vol, veh/h	59	39	5	593	1128	12
Conflicting Peds, #/hr	0	0	0		0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None	-		-	None
Storage Length	0	-	-	-		-
Veh in Median Storage			-	0	0	1.1
Grade, %	0		-	0	0	-
Peak Hour Factor	83	83	86	86	94	94
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	71	47	6	690	1200	13
	11	71	v	000	1200	10
						_
	Minor2		Major1		Major2	
Conflicting Flow All	1909	1207	1213	0		0
Stage 1	1207	- (#)	34			
Stage 2	702		025	-	123	-
Critical Hdwy	6.4	6.2	4.1		74	-
Critical Hdwy Stg 1	5.4			-		-
Critical Hdwy Stg 2	5.4	-	- 1	11 m		15 2
Follow-up Hdwy	3.5	3.3	2.2	10 <b>m</b>		3 <b>-</b> 2
Pot Cap-1 Maneuver	76	226	582	-	-	-
Stage 1	286	141	14	2 <b>4</b> -7	2 <b>8</b> 0	-
Stage 2	495		-			-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	75	226	582			-
Mov Cap-2 Maneuver	75	-	-	-	-	
Stage 1	281	-	-		16.4	-
Stage 2	495	-	-	-		
Annroach	ED		ND	-	SB	
Approach	EB		NB			
HCM Control Delay, s			0.1		0	
HCM LOS	F					
Minor Lane/Major Mvm	t	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		582		102		100
HCM Lane V/C Ratio		0.01		1.158		-
HCM Control Delay (s)		11.2		215.9	-	
HCM Lane LOS		В	A	F	-	-
HCM 95th %tile Q(veh)		0	-	7.7		
		•				

),		_				
Intersection			214			9.8
Int Delay, s/veh	3.1					
			MIDI	NOT	ODT	000
Movement	EBL		NBL	NBT	SBT	SBR
Lane Configurations	Y			र्भ	ţ,	
Traffic Vol, veh/h	24		17	1113	637	66
Future Vol, veh/h	24		17	1113	637	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	10.00	None	-	None	- 11	None
Storage Length	0	-	-	-	-	
Veh in Median Storage	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	57	57	92	92	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	42	16	18	1210	685	71
	Minor2		Major1		Major2	V
Conflicting Flow All	1967	721	756	0	2 <b>4</b> 53	0
Stage 1	721					-
Stage 2	1246	-	-	2	-	100
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	÷.
Critical Hdwy Stg 2	5.4			-	-	
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	70	431	864	-		-
Stage 1	485	-	-		-	
Stage 2	274		-		-	
	2/4					-
Platoon blocked, %	00	404	004	-	-	1.1
Mov Cap-1 Maneuver	66	431	864		7/:	
Mov Cap-2 Maneuver	66	-	-	-	-	
Stage 1	454	-	-	-		
Stage 2	274	-		-		
Approach	EB		NB		SB	1.1.2.
HCM Control Delay, s			0.1		0	
HCM LOS	F		0.1		0	
HCIVI LOS	Г					
1212 4 11 112						
Minor Lane/Major Mvm	nt	NBL	NBTI	EBLn1	SBT	SBR
Capacity (veh/h)	2.11	864		86		-
HCM Lane V/C Ratio		0.021		0.673		-
HCM Control Delay (s)		9.3		107.8	-	G 4.
HCM Lane LOS		3.5 A	A	F	4	
HCM 95th %tile Q(veh)		0.1	-	3.2		2
HCIVI 9501 %016 C(Ven)		U. 1		0.2		

		_		-		
Intersection	31	1.0				
Int Delay, s/veh	6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			÷.	¢	
Traffic Vol, veh/h	57	15	19	667	745	43
Future Vol, veh/h	57	15	19	667	745	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-		-		-	
Storage Length	0	-	-	Hone	-	-
Veh in Median Storage			-	0	0	-
			-	0	0	
Grade, %	0 74	- 74	92		85	85
Peak Hour Factor						
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	77	20	21	725	876	51
Major/Minor	Minor2	1	Major1	1	Major2	3745
Conflicting Flow All	1669	902	927	0		0
Stage 1	902	- 102	521	-		-
Stage 2	767	-	-	-	1.4	-
	6.4	6.2	4.1	-		
Critical Hdwy				-	-	112
Critical Hdwy Stg 1	5.4	-	-	0.51		2011
Critical Hdwy Stg 2	5.4	-	•		(#.	S.#2
Follow-up Hdwy	3.5	3.3	2.2	(3 <b>H</b> )	0 <b>.</b> #1	
Pot Cap-1 Maneuver	107	339	746			-
Stage 1	399	-	-	8 <b>4</b> 8	5 <b>4</b> 0	200
Stage 2	462	1	-	- 0°-		-
Platoon blocked, %						÷
Mov Cap-1 Maneuver	102	339	746	1.	(m)	-
Mov Cap-2 Maneuver	102	-	-			-
Stage 1	380	1				-
Stage 2	462	-	-	-	-	-
3						
Marial and Marian State			1.00		- 00	
Approach	EB		NB		SB	121
HCM Control Delay, s	107.4		0.3		0	
HCM LOS	F					
where the first of the						
Minor Lane/Major Mvm	ŧ	NBL	NRT	EBLn1	SBT	SBR
			_			
Capacity (veh/h)		746	-			÷.,
HCM Lane V/C Ratio		0.028		0.818	۲	( <b>•</b> ?
HCM Control Delay (s)		10		107.4	*	
HCM Lane LOS		Α	Α	F		-
HCM 95th %tile Q(veh)		0.1	-	4.8		

Intersection			bol (* 1	1.2.2	1.2		The second se	- eu -	- PA	10 m 10	- fi 🕛 - n'i	46
Int Delay, s/veh	16.6											
Movement	EBL	EBR	NBL	NBT	SBT	SBR	1 21 2 4	- A			1 e 11 - 1	dia -
Lane Configurations	Y			र्स	Þ							
Traffic Vol, veh/h	59	40	7	622	1189	12						
Future Vol, veh/h	59	40	7	622	1189	12						
Conflicting Peds, #/hr	0	0	0	0	0	0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					1.1
Sign Control	Stop	Stop	Free	Free	Free	Free						
RT Channelized				None		None				1111		3.5
Storage Length	0	=		-	-							
Veh in Median Storage		- 11		0	0					-		
Grade, %	0		- 4	0	0	044						
Peak Hour Factor	83	83	86	86	94	94						111
Heavy Vehicles, %	0	0	0	6	5	0						
Mvmt Flow	71	48	8	723	1265	13			1.0		1.01	
	11	τu	0	120	1200	10					and the second se	
Major/Minor	Minor2		Major1		Major2	1.1			18	1	1. State 1. State	1.1
Conflicting Flow All	2011	1272	1278	0		0						1000
Stage 1	1272	1212	12/0	0	-	0		1			- 1 5	20
		1/21	-	-						10.00		
Stage 2	739										-	
Critical Hdwy	6.4	6.2	4.1									100
Critical Hdwy Stg 1	5.4			-		•			-			
Critical Hdwy Stg 2	5.4	-	-		353		- 1 10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					
Follow-up Hdwy	3.5	3.3	2.2	9 <b>9</b> (				200				
Pot Cap-1 Maneuver	~ 66	207	550	3 <b></b> :			CONTRACTOR OF					
Stage 1	266	-	-									_
Stage 2	476	-								101		16.0
Platoon blocked, %					2	-						
Mov Cap-1 Maneuver	~ 64	207	550		۲	٠						
Mov Cap-2 Maneuver	~ 64	-	-			5 <b>7</b> 0						
Stage 1	260		-			•						
Stage 2	476	-	-			۲						
					8 <del>.</del> . 4							
Approach	EB		NB	-11	SB	11 - 2		51 m		2. )	1.00	
-ICM Control Delay, s	295.9		0.1	1	0		1 1 Las		1.4.4		ي المشار	
HCM LOS	F											
Minor Lane/Major Mvn	nt	NBL	NBT	EBLn1	SBT	SBR		in the	nn'y	10.015	200	N
Capacity (veh/h)		550	-	89		-			10.54	1.00		-217
HCM Lane V/C Ratio		0.015		1.34	-	-						
HCM Control Delay (s)		11.6		295.9		-						
HCM Lane LOS		B	A	E00.0	-							
HCM 95th %tile Q(veh	)	0	-	8.8	-							
		U		0.0								
Votes												

Intersection						- 314
Int Delay, s/veh	4.5					
Movement	EBL		NBL	NBT	SBT	SBR
Lane Configurations	EDL M		NOL	A	1	ODK
Traffic Vol, veh/h	24		19		678	66
	24		19	1180	678	66
Future Vol, veh/h	24		0		0/0	00
Conflicting Peds, #/hr			Free	Free	Free	Free
Sign Control RT Channelized	Stop		Fiee -		Fiee	None
				SHOW	-	None
Storage Length	0		2 <b>4</b>	-	-	~
Veh in Median Storage				-	0	
Grade, %	0		-	0	0	-
Peak Hour Factor	57	57	92		93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	42	19	21	1283	729	71
Major/Minor M	Minor2		Major1		Major2	1.000
Conflicting Flow All	2090	765	800	0	-	0
Stage 1	765	-				-
Stage 2	1325	25.7		-	-	-
Critical Hdwy	6.4	6.2	4.1	-		-
	5.4					
Critical Hdwy Stg 1	5.4 5.4				-	
Critical Hdwy Stg 2		-	2.2	•	-	-
Follow-up Hdwy	3.5	3.3				-
Pot Cap-1 Maneuver	59	406	832			•
Stage 1	463	-	-	÷	92	
Stage 2	251	-	-	-	5 _13 <b>*</b>	
Platoon blocked, %				10		-
Mov Cap-1 Maneuver	54	406	832			1 - B
Mov Cap-2 Maneuver	54	-	-			
Stage 1	422	-	-			287
Stage 2	251	-	-			
Approach	EB	i -a-	NB	1.00	SB	2 13
HCM Control Delay, s			0.1		0	
HCM LOS	133.5 F		0.1		v	
	I I					
		007.04				
Minor Lane/Major Mvm	t	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		832	-	74		
HCM Lane V/C Ratio		0.025	-	0.83	:#C	-
HCM Control Delay (s)		9.4	0	155.5		
HCM Lane LOS		А	Α	F	÷	-
HCM 95th %tile Q(veh)		0.1		4.1	-	•

Intersection
Int Delay, s/veh 7.7
Movement EBL EBR NBL NBT SBT SBR
Lane Configurations 💜 📢 🗘
Traffic Vol, veh/h 57 17 21 701 782 43
Future Vol, veh/h 57 17 21 701 782 43
Conflicting Peds, #/hr 0 0 0 0 0 0
Sign Control Stop Stop Free Free Free
RT Channelized - None - None - None
Storage Length 0
Veh in Median Storage, # 0 0 0 -
Grade, % 0 0 0 -
Peak Hour Factor 74 74 92 92 85 85
Heavy Vehicles, % 0 0 0 0 1 0
Mvmt Flow 77 23 23 762 920 51
Major/Minor Minor2 Major1 Major2
Conflicting Flow All 1754 946 971 0 - 0
Stage 1 946
Stage 2 808
Critical Hdwy 6.4 6.2 4.1
Critical Hdwy Stg 1 5.4
Critical Hdwy Stg 2 5.4
Follow-up Hdwy 3.5 3.3 2.2
Pot Cap-1 Maneuver 95 320 718
Stage 1 381
Stage 2 442
Platoon blocked, %
Mov Cap-1 Maneuver 90 320 718
Mov Cap-2 Maneuver 90
Stage 1 360
Stage 2 442
Approach EB NB SB
HCM Control Delay, s 140.7 0.3 0
HCM LOS F
Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR
Capacity (veh/h) 718 - 108
HCM Lane V/C Ratio 0.032 - 0.926
HCM Control Delay (s) 10.2 0 140.7
HCM Lane LOS B A F
HCM 95th %tile Q(veh) 0.1 - 5.6

Intersection				10.1		1.00			17216
Int Delay, s/veh	26.9								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		2111	
Lane Configurations	Y			f)	ţ,				
Traffic Vol, veh/h	66	44	6	653	1245	13			
Future Vol, veh/h	66	44	6	653	1245	13			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Stop	Stop	Free	Free	Free	Free			
RT Channelized	-		1	None	-	None			
Storage Length	0	2		-	-	:			
Veh in Median Storage	e, # 0	-	-	0	0	-			
Grade, %	0	-		0	0	-			
Peak Hour Factor	83	83	86	86	94	94	- 947 . I - 1677 . I -		
Heavy Vehicles, %	0	0	0	6	5	0			
Mvmt Flow	80	53	7	759	1324	14			
Major/Minor I	Minor2		Major1	NICS.	Major2	1	and the second	- 7	1. 7 V.
Conflicting Flow All	2104	1331	1338	0	-	0			
Stage 1	1331	-	-	-		-			
Stage 2	773					-			
Critical Hdwy	6.4	6.2	4.1			-			A set of the
Critical Hdwy Stg 1	5.4	-		-	-				
Critical Hdwy Stg 2	5.4		•			-		12.2	
Follow-up Hdwy	3.5	3.3	2.2	-	-				
Pot Cap-1 Maneuver	~ 57	191	522				A Section of the section of		
Stage 1	249	-			: <b>1</b> 2	123			
Stage 2	459		•		-	747		1	
Platoon blocked, %				-					
Mov Cap-1 Maneuver	~ 56	191	522						15. ST 1.
Mov Cap-2 Maneuver	~ 56	-	-	1 <b>1</b> 57					
Stage 1	243	2.4-1	-	•	•	1 c			
Stage 2	459	_		3 <b>6</b> 0)					
						24 J			
Approach	EB	A	NB		SB	10.00	N Strategies	10.11	
HCM Control Delay, s\$			0.1	S	0		0.0		-1
HCM LOS	F		0.1		v				
	900								
linor Long/Major Marm		NBL	NBT E	PL p1	SBT	SBR	All all shows and	The second second	
Minor Lane/Major Mvm	L	522		78	-	JDR -			the second s
Capacity (veh/h) ICM Lane V/C Ratio				1.699					
				1.0.77		*			
		0.013							
HCM Control Delay (s)		12	0\$	453.5					
HCM Control Delay (s) HCM Lane LOS		12 B		453.5 F	2	-			
HCM Control Delay (s) HCM Lane LOS HCM 95th %tile Q(veh)		12	0\$	453.5					
HCM Control Delay (s)		12 B 0	0\$ A -	453.5 F		•	utation Not Defined	*: All major volu	

7

## Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			÷	f)	
Traffic Vol, veh/h	27	10	19	1228	702	74
Future Vol, veh/h	27	10	19	1228	702	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	¥	¥	#	
Veh in Median Storage,	# 0			0	0	
Grade, %	0	8	e	0	0	-
Peak Hour Factor	57	57	92	92	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	47	18	21	1335	755	80

Major/Minor	Minor <sub>2</sub>		Major1	an in In	Major2	No. of Lot				
Conflicting Flow All	2172		835	0		0				
Stage 1	795		- 11-		-	-		n in the second s	Rock Strategie	
Stage 2	1377	7 <u>4</u>	02	026		-				
Critical Hdwy	6.4	6.2	4.1				1			
Critical Hdwy Stg 1	5.4	1.72	15	0.772						
Critical Hdwy Stg 2	5.4		-			8				
Follow-up Hdwy	3.5	3.3	2.2	3. <del>π</del> /						
Pot Cap-1 Maneuver	52	391	807			-			- P	
Stage 1	448	3 <b>4</b> 0	-	2840		1				
Stage 2	237	1	Mile-		-					
Platoon blocked, %										
Mov Cap-1 Maneuver	~ 47	391	807		- e					
Mov Cap-2 Maneuver	~ 47	-				: <b>-</b> ::				
Stage 1	403			-						
Stage 2	237	-	-							
	1.2	110	1	1.11	÷					
Approach	EB	1-1	NB		SB			-2-24	WHITE TRANSPORT	
HCM Control Delay, s	239.4	12.12	0.1		0		10.000	1.000		2
HCM LOS	F									
		15.0								
Minor Lane/Major Mvm	nt	NBL	NBT	EBLn1	SBT	SBR	Providence and a second second			
Capacity (veh/h)	1.4	807		62					- Contract of the state	
HCM Lane V/C Ratio		0.026	-	1.047		-				
HCM Control Delay (s)		9.6		239.4		7-3 + 8				
HCM Lane LOS		A	A	F		14				
HCM 95th %tile Q(veh)	)	0.1	-	5.1	÷.	- H	S. St. of the			
Notes	1 (m)	1.21	1820	1115	1. W. 11	2.11		1.00	No Carl Carl	
~: Volume exceeds cap	oacity	\$: De	lav exc	eeds 30	0s +	· Comnu	ation Not Defined	* All main	r volume in platoon	

12

### Intersection

Int Delay, s/veh

Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	Y			<del>4</del>	ţ,		
Traffic Vol, veh/h	62	17	21	735	822	48	
Future Vol, veh/h	62	17	21	735	822	48	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	16.	None	
Storage Length	0	1646	3 <b>4</b> 3	2 <b>4</b> 5	300		
Veh in Median Storage,	# 0	E.	-	0	0	-	
Grade, %	0			0	0		
Peak Hour Factor	74	74	92	92	85	85	
Heavy Vehicles, %	0	0	0	0	1	0	
Mvmt Flow	84	23	23	799	967	56	

Major/Minor	Minor2		Major1	M	Major2	- C.	10000			VA.				
Conflicting Flow All	1840		1023	0		0								
Stage 1	995	÷ *	1.78	-	- 34	-								
Stage 2	845	-	1	527		540								
Critical Hdwy	6.4	6.2	4.1	+		-								
Critical Hdwy Stg 1	5.4			100	-	7								
Critical Hdwy Stg 2	5.4	- 1 E.	1 Vi -		-	-								
Follow-up Hdwy	3.5	3.3	2.2											
Pot Cap-1 Maneuver	84	300	686	-		-								
Stage 1	361	-	-	3 <b>4</b> 0	- <b>3</b> 40	<b>(a)</b>								
Stage 2	425		-	- 11		- ¥								
Platoon blocked, %				-		÷(								
Mov Cap-1 Maneuver	~ 79	300	686	-										
Mov Cap-2 Maneuver	~ 79	-	-	: <del></del> 8	( <b>7</b> .)	-								
Stage 1	339	-	-	-										
Stage 2	425	-	-	( <b>H</b> C)	(#C	-								
Approach	EB		NB		SB	10.21	- VÆT-	1525	1.2		1, 9,	ip Sir-		u - 14
HCM Control Delay, s	217	1.1	0.3		0									
HCM LOS	F													
Minor Lane/Major Mvm	ıt	NBL	NBT	EBLn1	SBT	SBR			85	6 Y 5		t state	17.1	
Capacity (veh/h)	-	686	1 2	94		-	10.0	1	1 7 12			-		
HCM Lane V/C Ratio		0.033	-	1.136	-									
HCM Control Delay (s)	Yes 5	10.4	0	217	-									
HCM Lane LOS		В	A	F										
HCM 95th %tile Q(veh)		0.1		7.2	-	1		100		alla d				- ev
Notes	3 11	-42.9			1.5.1	16 194	18 - 1 - M			and the	10.10	120	- 15	2
~: Volume exceeds cap	pacity	\$: De	lay exc	eeds 30	0s +	: Compu	tation Not De	efined	*: All ma	jor volur	ne in pl	atoon		

34.1					
EBL	EBR	NBL	NBT	SBT	SBR
	45	8			13
					13
					0
					Free
				and the state of t	None
		2		_	-
-		-		-	
					-
					94
					0
80	54	9	793	1389	14
Jinor2	ľ	Maior1	ľ	Major2	
					0
		1403			-
		-			
			-		
		4.1			
		-		5	
		-			
3.5	3.3				-
~ 49	175	493		-	
232	2	<u> </u>	-	=	5 <b>4</b> 5
440	-	1111		e . e	- e.
			-	-	
~ 47	175	493		-	-
			-		
					1.77
	-	-	-		
440	-			-	200
	-	NB		SB	6 - F
EB					
<b>EB</b>				0	
596.7		0.1	12	0	
				0	
596.7			1.1	0	
596.7	NBL		:BLn1	0 SBT	SBR
596.7 F		0.1			SBR
596.7 F	493	0.1 NBT E	67	SBT -	
596.7 F	<b>493</b> 0.019	0.1 NBT E	67 1.996	SBT - -	-
596.7 F	493 0.019 12.4	0.1 <u>NBT E</u> - - 0\$	67 1.996 596.7	<u>SBT</u> - -	-
596.7 F	493 0.019 12.4 B	0.1 <u>NBT E</u> - - - - - - - - - - - - -	67 1.996 596.7 F	<u>SBT</u> - - -	•
596.7 F	493 0.019 12.4	0.1 <u>NBT E</u> - - 0\$	67 1.996 596.7	<u>SBT</u> - -	-
596.7 F	493 0.019 12.4 B	0.1 <u>NBT E</u> - - - - - - - - - - - - -	67 1.996 596.7 F	<u>SBT</u> - - -	•
	EBL 66 66 0 Stop - 0 ,# 0 0 83 0 80 80 80 80 80 80 80 80 811 6.4 5.4 5.4 3.5 ~ 49	EBL         EBR           66         45           66         45           0         0           Stop         Stop           0         Stop           0         Stop           0         -           0         -           0         -           0         -           0         -           83         83           0         0           80         54           Alinor2         I           2207         1396           1396         -           811         -           6.4         6.2           5.4         -           5.4         -           3.5         3.3           ~49         175           232         -           440         -           ~47         175           ~47         -           224         -	EBL         EBR         NBL           66         45         8           66         45         8           0         0         0           Stop         Stop         Free           None         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           0         -         -           83         83         86           0         0         0           80         54         9           Minor2         Major1         -           2207         1396         1403           1396         -         -           811         -         -           6.4         6.2         4.1           5.4         -         -           3.5         3.3         2.2           ~49         175         493           232         -         -      ~440         -         -	EBL         EBR         NBL         NBT $\mathbf{\hat{Y}}$ $\mathbf{\hat{f}}$ $\mathbf{\hat{f}}$ $\mathbf{\hat{f}}$ $66$ $45$ $8$ $682$ $66$ $45$ $8$ $682$ $0$ $0$ $0$ $0$ Stop         Stop         Free         Free           -         None         -         None $0$ $  0$ $0$ $  0$ $83$ $83$ $86$ $86$ $0$ $0$ $0$ $6$ $80$ $54$ $9$ $793$ $2207$ $1396$ $1403$ $0$ $1396$ $   811$ $   5.4$ $   5.4$ $   5.4$ $   5.4$ $  -$	EBL         EBR         NBL         NBT         SBT $\ensuremath{\mathbf{M}}^{\bullet}$ $\ensuremath{\mathbf{A}}^{\bullet}$ $$

1.	_	_				_						
Intersection	100-0	1000	1	1.00	, U, 'p-	1.00		100				fi gr
Int Delay, s/veh	7.6											
Movement	EBL	EBR	NBL	NBT	SBT	SBR					8- H	2 v v v
Lane Configurations	Y			स्	ĥ							
Traffic Vol, veh/h	27		21	1195	743	74					1.11	9
Future Vol, veh/h	27		21	1195	743	74						
Conflicting Peds, #/hr			0	0	0	0	A - 1 + 1 - 1	1.1.1		1.1		5.U 75 J
Sign Control	Stop	Stop	Free	Free	Free	Free						
RT Channelized	-		-	and the second se		None			1211			N
Storage Length	0	-		-	-	-						
Veh in Median Storag			1.12	0	0	-		1.1				1.5.5
Grade, %	e, <del>r</del> 0	-		0	0	-						
Peak Hour Factor	57	57	92	92	93	93			11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1			
	0	0	92	0		0						
Heavy Vehicles, %	47	21	23		799	80						-
Mvmt Flow	47	21	23	1299	799	00						
MajorMinor	Minor2		Major		Vaior?					-		
			Major1		Major2	0						
Conflicting Flow All	2184	839	879	0	3 <b>6</b> 3	0			STVD I DI			
Stage 1	839	이 같은 동안	1977 ( <del>-</del>	-	14	•	जिल्ला के जा		2.14	1.11.2		1.0
Stage 2	1345	-	-		-	-		_				
Critical Hdwy	6.4	6.2	4.1	-	-				10100	1.00		100
Critical Hdwy Stg 1	5.4	-	-	25		355						
Critical Hdwy Stg 2	5.4		-	-		-						
Follow-up Hdwy	3.5	3.3	2.2			( <b>*</b> )						
Pot Cap-1 Maneuver	51	369	777	-				1.1	1. C. C. C. C.		14.1	12
Stage 1	427		-		200	140 140						
Stage 2	245		-	-	141	11.1 14						
Platoon blocked, %					-							
Mov Cap-1 Maneuver	~ 46	369	777		÷		Y BALLAN	1215.14			÷ 8-	
Mov Cap-2 Maneuver		-	-									
Stage 1	382	1.014			-	-					- 177	1.00
Stage 2	245	-										
oldge L							والمراجعة المراجع	1.1				
Approach	EB		NB		SB			32-15				
HCM Control Delay, s	249.7		0.2	-	0	1 (de 1						
HCM LOS	F		0.2									
							1.0					
Minor Lane/Major Mvn	nt	NBL	NBT	EBLn1	SBT	SBR					- m	
Capacity (veh/h)		777	-	63	-	-						1911
HCM Lane V/C Ratio		0.029		1.086		-						
HCM Control Delay (s)	)	9.8		249.7						14		
HCM Lane LOS	/	9.0 A	A	249.7 F	120	-						
		0.1	A -	5.4	1		1.1.1					
HCM 95th %tile Q(veh	)	0.1		0.4		1 2 1 <b>3</b>			V BAIMIS			
Notes	e 14	XXer		12.11		na M					14.47	
~: Volume exceeds ca	pacity	\$: De	lay exc	eeds 30	00s -	+: Comp	utation Not Defin	ned *: A	ll major vol	ume in pla	toon	

Intersection		1.5	Str	176-						la la			- 1210
Int Delay, s/veh	15.6												
Movement	EBL	EBR	NBL	NBT	SBT	SBR	a section and					n ne	1. D.L.
Lane Configurations	Y			स	Ę.								
Traffic Vol, veh/h	62		23	769	859	48							
Future Vol, veh/h	62		23	769	859	48							
Conflicting Peds, #/hr			0	0	0	0							
Sign Control	Stop		Free	Free	Free	Free							
RT Channelized	-	and the second second	-	None	-	None							100
Storage Length	0		- ÷	-	-								
Veh in Median Storage			1.1.1	0	0	14					1000		
Grade, %	0, 11 0		-	0	0								
Peak Hour Factor	74	74	92	92	85	85							
Heavy Vehicles, %	0	0	0	0	1	0							
Mvmt Flow	84	26	25	836	1011	56							-
	04	20	20	030	1011	00							
	Minor2		Major1		Major2	201	The A State	- 110,00		14,571		Carl 2	
Conflicting Flow All	1925	1039	1067	0	( <b>a</b> )	0							
Stage 1	1039	11.00	1	11.14	4	() ( <del>.</del>							
Stage 2	886		۲	2									
Critical Hdwy	6.4	6.2	4.1	-	-								
Critical Hdwy Stg 1	5.4		( <b>#</b> )		3 <b>7</b> 3	1.50							
Critical Hdwy Stg 2	5.4	•	-	-	-	- 9							
Follow-up Hdwy	3.5	3.3	2.2			:*:							
Pot Cap-1 Maneuver	~ 74	283	661	-		-			10		m		
Stage 1	344	-	-			543							
Stage 2	406	-				-						1000	1
Platoon blocked, %			121		-	-							
Mov Cap-1 Maneuver	~ 69	283	661			10.00						374	
Mov Cap-2 Maneuver	~ 69		-			-							
Stage 1	320				-	Ect				1.1.1	1112-21	1.1.1.1.1	0.00
Stage 2	406	21	-	-	141	2							
Oldye 2	400	- 111		_									-
	_	_									10.2	_	_
Approach	EB	1.1.1.1	NB		SB	4101				The Party		12.11	1.91
HCM Control Delay, s			0.3		0								
HCM LOS	F												
					JUL 2								
/linor Lane/Major Mvm	nt	NBL	NBT E	BLn1	SBT	SBR		22.0		S 163	17.53	1. 27	150.00
Capacity (veh/h)		661	-	84		-		10-20-					
ICM Lane V/C Ratio		0.038	-	1.303	-								
ICM Control Delay (s)		10.7		288.6	-								
ICM Lane LOS		B	A	200.0 F	2								
ICM 95th %tile Q(veh)	)	0.1	-	8.2	-	- 0 g							
		0.1		0.2	-72	2							
lotes	See.	XEN	100	T DO		5307		12-12-	Contraction of the		17	пъ. ):	Y_N
: Volume exceeds cap	pacity	\$: Del	ay exce	eds 30	0s +	: Comp	utation Not Defined	*: All	major v	olume in	platoon		

NH Route 125 at NH Route 9

22

## 2019 Existing Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

	٦	†	۴	ļ,	Ļ	ъ	پ	X	$\rightarrow$	<b>F</b>	×	*
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	1	¥5	٦	<b>^</b> †		٦	1	1	٦	1	7
Traffic Volume (vph)	53	460	196	181	875	49	63	565	169	180	142	80
Future Volume (vph)	53	460	196	181	875	49	63	565	169	180	142	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25	T		25		1.1	25			25		101-15
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	100	1 2 4 1	30	100	101	30	100	1. 11. 1	30	100
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2	1.1	1000	12.8			15.0	100 - 11
Peak Hour Factor	0.91	0.4	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Heavy Vehicles (%)	1 70	370	170	5%	4 70	1070	∠ 70	1 70	170	070	576	1 70
Shared Lane Traffic (%)	50	505	045	404	070	0	70	057	407	070	045	404
Lane Group Flow (vph)	58	505	215	191	973	0	73	657	197	273	215	121
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	9404	1	6	4. L.L.	7	4		3	8	
Permitted Phases			2						4			8
Detector Phase	5	2	2	1	6	-	7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	1000	None	None	None	None	None	None
v/c Ratio	0.41	1.31	0.51	0.72	0.92		0.46	1.07	0.34	0.85	0.29	0.17
Control Delay	75.9	202.9	33.0	75.7	65.3		75.7	104.8	18.7	82.1	30.9	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.9	202.9	33.0	75.7	65.3		75.7	104.8	18.7	82.1	30.9	6.2
Queue Length 50th (ft)	56	~659	100	184	513		71	~744	59	262	137	3
Queue Length 95th (ft)	107	#943	198	274	#685		122	#981	126	269	160	14
Internal Link Dist (ft)	107	203	130	214	2568		122	482	120	203	581	14
	150	203	150	150	2000		100	402	100	100	301	100
Turn Bay Length (ft)		205			1057			612			754	
Base Capacity (vph)	359	385	420	353	1057		376	613	581	355	751	729
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.16	1.31	0.51	0.54	0.92		0,19	1.07	0.34	0.77	0.29	0.17
Intersection Summary	2-1-11-	-1-1-	Printing.	15	5 14	2200		1.20	100 40		BURK	

Lanes, Volumes, Timings AJA

S:\Jobs\8188\Analysis\8188-2019AMEX.syn

## 2019 Existing Weekday Morning Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other	
Cycle Length: 161		
Actuated Cycle Len	gth: 150.8	
Natural Cycle: 120		
Control Type: Actua	ated-Uncoordinated	
	s capacity, queue is theore	tically infinite.
	maximum after two cycles.	
	volume exceeds capacity, o	
	maximum after two cycles.	

L Ø1	<b>↑</b> ø2	₩ 03	204	
36 s	36 5	36 s	53 s	
<b>1</b> ø5	V Ø6	<b>₩</b> Ø7	×08	
36 s	36 5	36 s	53 5	- North Contraction

## 2019 Existing Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

	۲	†	4	L.	Ļ	w.		X	$\mathbf{F}$	Ð	K	*
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	<b>↑</b>	ŕ	ሻ	ተኩ		٦	<b>†</b>	7	ሻ	Ť	7
Traffic Volume (vph)	53	460	196	181	875	49	63	565	169	180	142	80
Future Volume (vph)	53	460	196	181	875	49	63	565	169	180	142	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	1810	1599	1662	3422		1770	1881	1546	1671	1749	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	1810	1599	1662	3422		1770	1881	1546	1671	1749	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Adj. Flow (vph)	58	505	215	191	921	52	73	657	197	273	215	121
RTOR Reduction (vph)	0	0	80	0	2	0	0	0	78	0	0	66
Lane Group Flow (vph)	58	505	135	191	971	0	73	657	119	273	215	55
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4	25 Y Y Y		8
Actuated Green, G (s)	9.2	29.5	29.5	22.2	42.5		11.6	47.2	47.2	27.2	62.8	62.8
Effective Green, g (s)	11.2	33.5	33.5	24.2	46.5		13.6	49.2	49.2	29.2	64.8	64.8
Actuated g/C Ratio	0.07	0.22	0.22	0.16	0.31		0.09	0.32	0.32	0.19	0.43	0.43
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0	21 A	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	398	352	264	1046		158	608	500	320	745	658
v/s Ratio Prot	0.03	c0.28		c0.11	c0.28		0.04	c0.35		c0.16	0.12	
v/s Ratio Perm			0.08			- 1. I.	1. 1. 1		0.08	1. S.		0.04
v/c Ratio	0.47	1.27	0.38	0.72	0.93		0.46	1.08	0.24	0.85	0.29	0.08
Uniform Delay, d1	67.6	59.3	50.5	60.8	51.2		65.8	51.4	37.7	59.4	28.6	26.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.8	139.5	0.7	9.4	13.6		2.1	60.2	0.2	19.2	0.2	0.1
Delay (s)	70.4	198.8	51.2	70.2	64.8		67.9	111.6	38.0	78.6	28.8	26.0
Level of Service	E	F	D	E	E		Е	F	D	E	С	С
Approach Delay (s)		148.4			65.7			92.5			50.6	-
Approach LOS		F			E		- MA	F			D	
Intersection Summary	182-10	<u>Tapun</u>	êğ Ç	x				2-10	Cott 2 3	- W	1.2	
HCM 2000 Control Delay			88.7	Н	CM 2000	Level of S	ervice		F			
HCM 2000 Volume to Capa	city ratio		1.02	_					10.0			
Actuated Cycle Length (s)			152.1		um of lost				16.0			
Intersection Capacity Utiliza	tion		87.3%	IC	CU Level o	f Service			E			-
Analysis Period (min)			15							1 8		5 11 M

### 2019 Existing Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	1	7	٦ ا	<b>↑</b> ⊅_		ሻ	1	Ĩ	٦	1	7
Traffic Volume (vph)	194	903	106	81	483	97	81	165	102	254	469	128
Future Volume (vph)	194	903	106	81	483	97	81	165	102	254	469	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150	THE REPORT	150	150		0	100	122	100	100	Can the second	100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25	1 in 201 7	1000	25			25	10000	C.V.
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	-	30		1.1	30		1.00	30	100-12	-	30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4	* a = =	1.511	60.2	- Trite	- <sup>2</sup>	12.8			15.0	
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)	0,0	0,0	0,0	0,0			0.10	0,0	0,0		0,0	
Lane Group Flow (vph)	213	992	116	87	623	0	88	179	111	276	510	139
Turn Type	Prot	NA	Perm	Prot	NA	0	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	T OIM	1	6	2.01	7	4	1 Onn	3	8	i cim
Permitted Phases	v	2	2		U	A DESCRIPTION OF		т	4	J	U	8
Detector Phase	5	2	2	1	6	1. A. A.	7	4	4	3	8	8
Switch Phase	J	2	4	- 1212	0				-	J	0	0
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	U.S.	36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
the second	30.0	28.0	28.0	30.0	22.4%		30.0	47.0	47.0	30.0	47.0	47.0
Maximum Green (s)		26.0 6.0	26.0 6.0	4.0	20.0		4.0	47.0	47.0	4.0	47.0	and the second se
Yellow Time (s)	4.0					VII. 12.						4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	100	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	1244	None	None	None	None	None	None
v/c Ratio	0.66	1.68	0.20	0.45	0.73		0.45	0.39	0.24	0.74	0.81	0.23
Control Delay	60.9	341.9	9.9	64.5	51.2		64.2	45.5	8.2	61.6	51.1	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	341.9	9.9	64.5	51.2		64.2	45.5	8.2	61.6	51.1	9.5
Queue Length 50th (ft)	175	~1263	9	72	258		73	127	0	226	386	13
Queue Length 95th (ft)	274	#1675	58	136	371		137	220	47	356	#637	67
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		100
Base Capacity (vph)	462	592	573	446	903		462	744	681	457	720	675
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	1.68	0.20	0.20	0.69		0.19	0.24	0.16	0.60	0.71	0.21
Intersection Summary	3 Fi -	ik na E	1200			TE SY		US U.S. I	100	4,5	P. S. C.	

Lanes, Volumes, Timings AJA

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## 2019 Existing Weekday Evening Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other	
Cycle Length: 161		1
Actuated Cycle Len	jth: 127.7	
Natural Cycle: 130		
Control Type: Actua	ted-Uncoordinated	
- Volume exceeds	capacity, queue is theoretically infinite.	
Queue shown is	maximum after two cycles.	
# 95th percentile v	olume exceeds capacity, queue may be longer.	0 - 10 - 10
Queue shown is	maximum after two cycles.	

L Ø1	¶ø₂	€ 03	<b>X</b> Ø4	
36 s	36 s	36 s	53 s	
<b>\</b> ø5	↓ Ø6	<b>₩</b> Ø7	28	
36 s	36-5	36 s	53 s	- x - 2,- 18 1

## 2019 Existing Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

	٦	†	<u>م</u>	ų,	Ŧ	¥J.		X	$\mathbf{F}$	₽.	×	*
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	7	٦	<b>≜</b> †⊅		٦	<b>↑</b>	7	۲	1	7
Traffic Volume (vph)	194	903	106	81	483	97	81	165	102	254	469	128
Future Volume (vph)	194	903	106	81	483	97	81	165	102	254	469	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97	ante l'A	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1745	3491		1805	1900	1561	1787	1837	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1900	1615	1745	3491	- 16	1805	1900	1561	1787	1837	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	213	992	116	87	519	104	88	179	111	276	510	139
RTOR Reduction (vph)	0	0	70	0	10	0	0	0	84	0	0	76
Lane Group Flow (vph)	213	992	46	87	613	0	88	179	27	276	510	63
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases		- 1é	2			1411		1.2	4			8
Actuated Green, G (s)	20.8	35.7	35.7	12.0	26.9		11.9	28.7	28.7	24.7	41.5	41.5
Effective Green, g (s)	22.8	39.7	39.7	14.0	30.9		13.9	30.7	30.7	26.7	43.5	43.5
Actuated g/C Ratio	0.18	0.31	0.31	0.11	0.24		0.11	0.24	0.24	0.21	0.34	0.34
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0	e	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	323	593	504	192	848	16.2	197	458	377	375	628	529
v/s Ratio Prot	c0.12	c0.52		0.05	0.18		0.05	0.09		c0.15	c0.28	
v/s Ratio Perm	2.145		0.03						0.02			0.04
v/c Ratio	0.66	1.67	0.09	0.45	0.72		0.45	0.39	0.07	0.74	0.81	0.12
Uniform Delay, d1	48.5	43.7	30.9	53.0	44.2	1. 0.	53.0	40.4	37.2	46.9	38.1	28.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.8	310.1	0.1	1.7	3.1		1.6	0.6	0.1	7.3	7.9	0.1
Delay (s)	53.3	353.8	31.0	54.7	47.2		54.6	40.9	37.3	54.2	46.0	28.8
Level of Service	D	F	С	D	D	1.11	D	D	D	D	D	С
Approach Delay (s)		277.0			48.2			43.0			45.9	
Approach LOS	15, 19 6	F		_	D			D	1.0872		D	
Intersection Summary	11-11-2	d - to ann	105.0	. See Co				11.71	-China	101 540		
HCM 2000 Control Delay		18.18	137.6	H	CM 2000 I	_evel of S	ervice		F			
HCM 2000 Volume to Capa	city ratio		1.11									
Actuated Cycle Length (s)			127.1		im of lost				16.0			
Intersection Capacity Utiliza Analysis Period (min)	ition		94.5% 15	IC	U Level o	r Service			F			2 10

2019 Existing Saturday Midday Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	1	1	*	ሻ	<b>↑</b> ₽-		ሻ	1	7	ሻ	1	1
Traffic Volume (vph)	112	466	106	105	579	125	112	247	157	146	198	102
Future Volume (vph)	112	466	106	105	579	125	112	247	157	146	198	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150		0	100		100	100	24 T	100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25		Se 14	25	International Academic	
Right Turn on Red	20		Yes			Yes			Yes			Yes
Link Speed (mph)		30	100		30	100		30			30	100
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			12.8	1.		15.0	11
Peak Hour Factor	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0.90	1%	0.35	0%	1%	0.00	0.05	0.00	0.00	0.50	1%	0.00
	0 /0	1 /0	0 /6	070	1 /0	0 /0	0 /0	0 /0	0 /0	0 /0	1 /0	0 70
Shared Lane Traffic (%)	118	491	112	131	880	0	126	278	176	162	220	113
Lane Group Flow (vph)									No	No		No
Enter Blocked Intersection	No	No	No	No	No	No	No	No			No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12	and the second second		12			12			12	
Link Offset(ft)		0		'e 114	0		- <b>1</b>	0			0	- Area 2
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane		1.81 - L					100	T 25 231	100			
Headway Factor	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.04	1.00	1.04	1.04
Turning Speed (mph)	15		9	15	1.1.521	9	15	1 pi mbr	9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1-1-1	1	6	, ki di	7	4		3	8	
Permitted Phases			2						4			8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.47	0.85	0.20	0.50	0.79		0.48	0.65	0.40	0.55	0.49	0.24
Control Delay	51.1	52.3	9.5	50.9	40.8	$-n \in \mathbb{R}$	50.9	45.9	16.6	50.1	39.3	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	52.3	9.5	50.9	40.8		50.9	45.9	16.6	50.1	39.3	7.2
Queue Length 50th (ft)	73	304	9.5 5	81	274		78	40.9	33	100	126	0
	154	#682	55	147	#411		160	293	101	198	228	43
Queue Length 95th (ft)	104		00	147	2568		100		101	190		43
Internal Link Dist (ft)		203	_		2000	_		482			581	

Lanes, Volumes, Timings AJA

Synchro 10 Report S:\Jobs\8188\Analysis\8188-2019SMEX.syn

### 2019 Existing Saturday Midday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Turn Bay Length (ft)	150	2131	150	150			100		100	100		100
Base Capacity (vph)	555	578	567	536	1116		555	895	796	555	856	796
Starvation Cap Reductn	0	0	0	0	0	1.11.2	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.85	0.20	0.24	0.79		0.23	0.31	0.22	0.29	0.26	0.14
Intersection Summary	a		145.5	11.00	2 1 3	2111	N 14 71	VE NI		1.3	1010	200
Area Type:	Other											
Cycle Length: 161							5 a 1 4		14 A. S			
Actuated Cycle Length: 10	06.2											
Natural Cycle: 65				1-								
Control Type: Actuated-Ur	ncoordinated											
# 05th noreceptile velume		anite au		na langar					_		-	

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

	<b>1</b> ø₂	€ @3	204	
36 s	36 s	36 s	53 s	
<b>1</b> ø5	↓ Ø6	<b>₩</b> Ø7	28	
36 5	36 s	36 s	53 s	Carlos Charles 1918

## 2019 Existing Saturday Midday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	<b>†</b>	۴	ሻ	<b>†</b> 1≽		۲	1	7	٦	1	۲
Traffic Volume (vph)	112	466	106	105	579	125	112	247	157	146	198	102
Future Volume (vph)	112	466	106	105	579	125	112	247	157	146	198	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1881	1615	1745	3485	11 N.L1	1805	1900	1561	1805	1818	1561
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1881	1615	1745	3485		1805	1900	1561	1805	1818	1561
Peak-hour factor, PHF	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	118	491	112	131	724	156	126	278	176	162	220	113
RTOR Reduction (vph)	0	0	70	0	10	0	0	0	89	0	0	85
Lane Group Flow (vph)	118	491	42	131	870	0	126	278	87	162	220	28
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	12.8	28.7	28.7	13.8	29.7		13.3	21.9	21.9	15.4	24.0	24.0
Effective Green, g (s)	14.8	32.7	32.7	15.8	33.7		15.3	23.9	23.9	17.4	26.0	26.0
Actuated g/C Ratio	0.14	0.31	0.31	0.15	0.32		0.14	0.23	0.23	0.16	0.25	0.25
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	252	581	499	260	1110	2.2	261	429	352	296	446	383
v/s Ratio Prot	0.07	c0.26		c0.08	0.25		0.07	c0.15		c0.09	0.12	
v/s Ratio Perm		2007	0.03				1.00		0.06		1011	0.02
v/c Ratio	0.47	0.85	0.08	0.50	0.78		0.48	0.65	0.25	0.55	0.49	0.07
Uniform Delay, d1	41.9	34.2	25.9	41.4	32.7		41.6	37.1	33.6	40.6	34.2	30.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	10.9	0.1	1.5	3.7		1.4	3.4	0.4	2.1	0.9	0.1
Delay (s)	43.3	45.1	26.0	42.9	36.4		43.0	40.5	33.9	42.7	35.1	30.7
Level of Service	D	D	С	D	D		D	D	С	D	D	С
Approach Delay (s)		41.8			37.3			39.1			36.6	
Approach LOS		D			D			D		<u> 199</u>	D	6.0
Intersection Summary	Sec. 2		5.97	N 18	1.715		de la	N	14		51.4	2.3
HCM 2000 Control Delay			38.7	HC	CM 2000 L	_evel of S	ervice		D			91.24
HCM 2000 Volume to Capac	ity ratio		0.67									
Actuated Cycle Length (s)	. N.		105.8	Su	m of lost	time (s)			16.0			
Intersection Capacity Utilizat	ion		64.8%	IC	U Level of	f Service			С			
Analysis Period (min)		1.25 3	15									

## 2020 No Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	7	1	7	ኘ	<b>†</b> Þ		۲	1	1	٦	1	7
Traffic Volume (vph)	52	492	185	236	911	66	108	543	164	174	137	107
Future Volume (vph)	52	492	185	236	911	66	108	543	164	174	137	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150	1.7.1.1	0	100	DEX 1 MI	100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25	D-TO, IX	-	25	1		25	1000		25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	100	30			30	-	- 18 A	30		-	30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)	Sec. 1.	6.4	1.27.5		60.2	1	-10 HV-11	12.8			15.0	-
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Shared Lane Traffic (%)		0.0							170	0.00	0.0	
Lane Group Flow (vph)	57	541	203	248	1028	0	126	631	191	264	208	162
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1 Onn	1	6	24.7474	7	4	T OIIII	3	8	1 onn
Permitted Phases	•		2					-	4	0	0	8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase	U	-	2		U		,		7	Ų	U	U
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	* 1 2 7	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	L. AL	36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%	the second second	22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0	1400	30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	4.0 Lag	4.0 Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	1. C	None	None	None	None	None	None
v/c Ratio	0.42	1.44	0.49	0.82	0.92		0.60	1.06	0.34	0.84	0.31	0.24
Control Delay	77.7	255.5	31.8	82.4	64.4		77.2	102.4	18.7	84.1	36.2	10.5
Queue Delay	0.0	235.5	0.0	02.4	0.0		0.0	0.0	0.0	04.1	0.0	0.0
Total Delay	77.7	255.5	31.8	82.4	64.4		77.2	102.4	18.7	84.1	36.2	10.5
Queue Length 50th (ft)	58	~782	93	249	556		128	~745	58	266	30.2 151	
Queue Length 95th (ft)	106	#1025	183	#360	#748		120	#924			165	24
	100	203	105	#300	2568		104	#924 482	120	259		33
Internal Link Dist (ft)	150	203	150	150	2000		100	402	100	100	581	100
Turn Bay Length (ft)		275			1116			500		100	070	100
Base Capacity (vph)	350	375	412	345	24		367	598	569	347	676	674
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0 24	0	0	0	0	0
Reduced v/c Ratio	0.16	1.44	0.49	0.72	0.92		0.34	1.06	0.34	0.76	0.31	0.24
Intersection Summary	Store -		C C L L N	1. 1. 1.		1.54	- 1,14	- U.P	1.32	4Q		

Lanes, Volumes, Timings AJA

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## 2020 No Build Weekday Morning Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other					
Cycle Length: 161			11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17 11 1	Less uite.	
Actuated Cycle Ler	igth: 154.6					
Natural Cycle: 120			1 1 1 1 1 1			
Control Type: Actu	ated-Uncoordinated					
~ Volume exceed	s capacity, queue is the	eoretically infinite.		1.5.1 1.5.1		
Queue shown is	maximum after two cyc	cles.				
# 95th percentile	volume exceeds capacit	ity, queue may be longer.				7
Queue shown is	maximum after two cyc	cles.				

	t ø2	<b>€</b> 7ø3	<b>X</b> Ø4	
36 s	36 s	36 s	53 \$	
<b>1</b> Ø5	↓ Ø6	<b>گ</b> 07	28	
36 s	36 s	36 s	53 s	

## 2020 No Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	*	ሻ	 ↑î≽		٦	1	7	٣	1	7
Traffic Volume (vph)	52	492	185	236	911	66	108	543	164	174	137	107
Future Volume (vph)	52	492	185	236	911	66	108	543	164	174	137	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	1810	1599	1662	3410		1770	1881	1546	1671	1749	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	1810	1599	1662	3410		1770	1881	1546	1671	1749	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Adj. Flow (vph)	57	541	203	248	959	69	126	631	191	264	208	162
RTOR Reduction (vph)	0	0	80	0	3	0	0	0	79	0	0	77
Lane Group Flow (vph)	57	541	123	248	1025	0	126	631	112	264	208	85
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	9.2	29.4	29.4	26.3	46.5		16.4	47.1	47.1	27.1	57.8	57.8
Effective Green, g (s)	11.2	33.4	33.4	28.3	50.5	1 2 L.	18.4	49.1	49.1	29.1	59.8	59.8
Actuated g/C Ratio	0.07	0.21	0.21	0.18	0.32		0.12	0.31	0.31	0.19	0.38	0.38
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0	1.12	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	121	387	342	301	1104		208	592	486	311	670	593
v/s Ratio Prot	0.03	c0.30		c0.15	c0.30		0.07	c0.34		c0.16	0.12	
v/s Ratio Perm	1.73		0.08			1.1	R. D		0.07			0.05
v/c Ratio	0.47	1.40	0.36	0.82	0.93		0.61	1.07	0.23	0.85	0.31	0.14
Uniform Delay, d1	69.5	61.2	52.1	61.4	51.0		65.3	53.4	39.5	61.3	33.6	31.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	194.1	0.6	16.5	13.1		4.9	55.8	0.2	18.9	0.3	0.1
Delay (s)	72.4	255.4	52.8	77.9	64.1		70.2	109.2	39.7	80.2	33.9	31.5
Level of Service	Е	F	D	E	E		E	F	D	F	С	С
Approach Delay (s)		191.0			66.8			90.0			52.5	
Approach LOS	1	F			E			F			D	
Intersection Summary	100		1.15	1.5	1234		1.22	1000		5.1		
HCM 2000 Control Delay			97.5	H	CM 2000 L	evel of S	ervice		F			
HCM 2000 Volume to Capac	city ratio		1.05									
Actuated Cycle Length (s)			155.9	SL	im of lost	time (s)			16.0			-, E
Intersection Capacity Utilizat	tion		90.5%	IC	U Level of	f Service			E			
Analysis Period (min)			15									

## 2020 No Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	1	ሻ	<b>↑</b> ₽		۲	1	1	ሻ	1	7
Traffic Volume (vph)	191	931	104	102	511	127	101	160	99	249	458	163
Future Volume (vph)	191	931	104	102	511	127	101	160	99	249	458	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25	112		25		an an fei	25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	100	1.	30	100	Sec	30	100		30	100
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4		-	60.2		N 251	12.8	-		15.0	
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0.91	0.51	0.51	0.00	1%	0.00	0.02	0.02	0.52	1%	0.02	1%
	076	0 76	0 %	0 /0	1 /0	0 /0	0 /0	0 /0	0 70	1 /0	0 /0	1 70
Shared Lane Traffic (%)	040	4000	114	110	686	0	110	174	108	271	498	177
Lane Group Flow (vph)	210	1023										
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	-
Link Offset(ft)		0	- 12 - 11	21 - 1-	0	1.51		0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane			1									1.2
Headway Factor	1.00	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.04	1.00	1.04	1.04
Turning Speed (mph)	15	- C - L - L	9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	1.2.1
Permitted Phases			2						4			8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0	1111	30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.66	1.78	0.20	0.52	0.78		0.51	0.38	0.23	0.74	0.83	0.30
and the second se	62.0	387.0	10.20	64.8	53.4	ale i Bari	64.6	44.9	7.6	63.1	53.6	14.2
Control Delay			0.0	04.0	0.0		04.0	44.9	0.0	0.0	0.0	0.0
Queue Delay	0.0	0.0										
Total Delay	62.0	387.0	10.2	64.8	53.4	1.1	64.6	44.9	7.6	63.1	53.6	14.2
Queue Length 50th (ft)	173	~1343	7	91	291		91	123	0	222	383	36
Queue Length 95th (ft)	275	#1810	59	165	#455	1.8	165	213	44	356	#633	106
Internal Link Dist (ft)		203			2568			482			581	

Lanes, Volumes, Timings AJA

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## 2020 No Build Weekday Evening Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Turn Bay Length (ft)	150		150	150			100	ñ (3	100	100		100
Base Capacity (vph)	454	575	559	439	888		454	733	673	450	708	666
Starvation Cap Reductn	0	0	0	0	0	u	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	1.78	0.20	0.25	0.77		0.24	0.24	0.16	0.60	0.70	0.27
Intersection Summary	te put					gard.	1.	- 1 <sup>1</sup> , 1	1 IN	S	- 1	
Area Type:	Other											
Cycle Length: 161												×
Actuated Cycle Length: 12	9.4											
Natural Cycle: 120												100
Control Type: Actuated-Ur	ncoordinated											
~ Volume exceeds capa	city, queue is	theoretic	ally infinite	е.								
Queue shown is maxim	um after two	cycles.										
# 95th percentile volume			eue may ł	e longer.			1.5					
Queue shown is maxim	um after two	cycles.										

Ø1	¶ø₂	<b>1</b> 03	2 04	
36 s	36 s	36 s	53 s	and the second s
<b>1</b> ø5	Ø6	<b>₩</b> Ø7	7/28	
36 s	36.5	36 s	53 \$	

## 2020 No Build Weekday Evening Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٣	1	7	ካ	†1≽		ሻ	· · • •	7	ሻ	<b>↑</b>	7
Traffic Volume (vph)	191	931	104	102	511	127	101	160	99	249	458	163
Future Volume (vph)	191	931	104	102	511	127	101	160	99	249	458	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1745	3474		1805	1900	1561	1787	1837	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1900	1615	1745	3474		1805	1900	1561	1787	1837	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	210	1023	114	110	549	137	110	174	108	271	498	177
RTOR Reduction (vph)	0	0	71	0	13	0	0	0	82	0	0	77
Lane Group Flow (vph)	210	1023	43	110	673	0	110	174	26	271	498	100
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA	1.11	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	1112		2	8 - F			100	1. 20 2	4			8
Actuated Green, G (s)	20.7	35.1	35.1	13.8	28.2		13.5	29.6	29.6	24.5	40.6	40.6
Effective Green, g (s)	22.7	39.1	39.1	15.8	32.2		15.5	31.6	31.6	26.5	42.6	42.6
Actuated g/C Ratio	0.18	0.30	0.30	0.12	0.25		0.12	0.24	0.24	0.21	0.33	0.33
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	317	575	489	213	867	10.2	216	465	382	367	606	510
v/s Ratio Prot	c0.12	c0.54		0.06	0.19		0.06	0.09		c0.15	c0.27	
v/s Ratio Perm	-	198	0.03				115		0.02			0.06
v/c Ratio	0.66	1.78	0.09	0.52	0.78		0.51	0.37	0.07	0.74	0.82	0.20
Uniform Delay, d1	49.6	45.0	32.2	53.0	45.1		53.2	40.5	37.4	48.0	39.7	30.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.1	357.6	0.1	2.1	4.4		1.9	0.5	0.1	7.6	8.8	0.2
Delay (s)	54.7	402.6	32.3	55.1	49.5		55.1	41.0	37.5	55.6	48.5	31.1
Level of Service	D	F	С	E	D		Е	D	D	E	D	С
Approach Delay (s)		317.0			50.2			44.0			47.3	
Approach LOS		F			D			D			D	113
Intersection Summary	and the	100				- 14 - 14			1	100	10.15	
HCM 2000 Control Delay			152.0	H	CM 2000 I	evel of S	ervice		F			21
HCM 2000 Volume to Capa	city ratio		1.14									
Actuated Cycle Length (s)			129.0	Su	im of lost	time (s)			16.0			
Intersection Capacity Utiliza	ition		97.7%		U Level o				F			
Analysis Period (min)			15									

## 2020 No Build Saturday Midday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	7	1	7	۲	<u></u> †î≽		۲	1	7	۲	1	7
Traffic Volume (vph)	109	486	104	126	604	144	135	239	153	141	192	124
Future Volume (vph)	109	486	104	126	604	144	135	239	153	141	192	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150	6-23	0	100	- N	100	100	1	100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25	2.9.2. 7	1.2.5	25	1 - 2 -		25	122		25	1201	ACT . 1
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	1.1.2		30			30		1.00	30	11-F
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4	d revi	E 171 - 94	60.2	1. C		12.8		10.00	15.0	
Peak Hour Factor	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	512	109	158	935	0	152	269	172	157	213	138
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1000	1	6		7	4		3	8	
Permitted Phases			2				· · · ·	· ·	4	· · · ·		8
Detector Phase	5	2	2	1	6	i Sw E	7	4	4	3	8	8
Switch Phase		_	_									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	Q V. 1	36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0	1	30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.1	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.47	0.90	0.19	0.55	0.81		0.53	0.65	0.40	0.54	0.53	0.32
Control Delay	51.8	57.8	9.2	51.1	40.7		50.9	47.0	16.7	50.9	43.1	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	57.8	9.2	51.1	40.7		50.9	47.0	16.7	50.9	43.1	11.9
Queue Length 50th (ft)	72	328	3.2	99	295	1.500.0	95	166	31	98	127	12
Queue Length 95th (ft)	152	#728	53	170	427		187	289	100	194	233	68
	152		55	170	2568		107	482	100	194	581	00
Internal Link Dist (ft)	150	203	150	150	2000		100	402	100	100	301	100
Turn Bay Length (ft)		670			1161			885			017	
Base Capacity (vph)	549	572	562	531			549		789	549	847	789
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0 25	0
Reduced v/c Ratio	0.21	0.90	0.19	0.30	0.81		0.28	0.30	0.22	0.29	0.25	0.17
Intersection Summary	en onvers	100			1.57117	2 2 11	1 1 - 4	7-24	E TO	1 64		

Lanes, Volumes, Timings AJA

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## 2020 No Build Saturday Midday Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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36 s	36 s	36 s	53 s	and states and the states of the
<b>1</b> ø5	↓ Ø6	Ø7	708	
36 s	36 \$	36 5	53 s	

## 2020 No Build Saturday Midday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	1	7	ሻ	tr,		ሻ	1	T.	٦	<b>†</b>	1
Traffic Volume (vph)	109	486	104	126	604	144	135	239	153	141	192	124
Future Volume (vph)	109	486	104	126	604	144	135	239	153	141	192	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1881	1615	1745	3478	1.11	1805	1900	1561	1805	1818	1561
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1881	1615	1745	3478		1805	1900	1561	1805	1818	1561
Peak-hour factor, PHF	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	115	512	109	158	755	180	152	269	172	157	213	138
RTOR Reduction (vph)	0	0	71	0	11	0	0	0	90	0	0	89
Lane Group Flow (vph)	115	512	38	158	924	0	152	269	82	157	213	49
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	-		2				1.20		4		80.13	8
Actuated Green, G (s)	12.7	28.7	28.7	15.5	31.5		14.9	21.4	21.4	15.2	21.7	21.7
Effective Green, g (s)	14.7	32.7	32.7	17.5	35.5		16.9	23.4	23.4	17.2	23.7	23.7
Actuated g/C Ratio	0.14	0.31	0.31	0.16	0.33		0.16	0.22	0.22	0.16	0.22	0.22
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	248	575	494	285	1156	16.0	285	416	342	290	403	346
v/s Ratio Prot	0.06	c0.27		c0.09	c0.27		0.08	c0.14		c0.09	0.12	
v/s Ratio Perm	SURVEY		0.02			21.77		15.02	0.05			0.03
v/c Ratio	0.46	0.89	0.08	0.55	0.80		0.53	0.65	0.24	0.54	0.53	0.14
Uniform Delay, d1	42.4	35.3	26.3	41.1	32.4		41.3	37.9	34.4	41.2	36.6	33.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	15.9	0.1	2.3	4.0		1.9	3.4	0.4	2.1	1.3	0.2
Delay (s)	43.8	51.2	26.4	43.4	36.4		43.2	41.4	34.7	43.2	37.9	33.6
Level of Service	D	D	С	D	D		D	D	С	D	D	С
Approach Delay (s)		46.4			37.4			39.9			38.4	
Approach LOS		D	54 Q.		D			D			D	- 11 <u>- 1</u> 2
Intersection Summary						11.20		1	18.11	, ilai 15 V		
HCM 2000 Control Delay			40.3	Н	CM 2000	Level of S	ervice		D			
HCM 2000 Volume to Capac	city ratio		0.69									
Actuated Cycle Length (s)			106.8	S	um of lost	time (s)			16.0			
Intersection Capacity Utiliza	tion		66.3%	IC	U Level o	f Service			С			
Analysis Period (min)			15									
Oritical Laws Oneur												

## 2030 Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	1	ሻ	A		٦	1	7	۲	1	1
Traffic Volume (vph)	52	523	185	243	930	77	118	543	164	174	137	115
Future Volume (vph)	52	523	185	243	930	77	118	543	164	174	137	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150	2000	150	150		0	100	-	100	100	5 - T.	100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25	S 1 35	1.00	25	S04 - D2		25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	1.5		30		2.0	30		#	30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)	1 2 2	6.4	- C- 20	· · · · ·	60.2	D. D	a starter of	12.8			15.0	
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Shared Lane Traffic (%)	1 70	J /0	170	570	4 /0	1070	2 /0	170	170	070	570	170
Lane Group Flow (vph)	57	575	203	256	1060	0	137	631	191	264	208	174
				Prot	NA	U	Prot	NA	Perm		NA	Perm
Turn Type	Prot	NA	Perm				7		Perm	Prot		Perm
Protected Phases	5	2	0	1	6		1	4	4	3	8	0
Permitted Phases		•	2		0		-		4	•	•	8
Detector Phase	5	2	2	1	6	A	7	4	4	3	8	8
Switch Phase						_						
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	1.1	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	n efter s	36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.42	1.54	0.49	0.83	0.95		0.62	1.06	0.34	0.84	0.31	0.26
Control Delay	77.8	295.2	32.0	83.5	67.6	-9	77.3	104.0	18.8	84.5	37.2	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.8	295.2	32.0	83.5	67.6	100	77.3	104.0	18.8	84.5	37.2	10.8
Queue Length 50th (ft)	58	~862	94	258	581		139	~752	59	268	154	27
Queue Length 95th (ft)	106	#1104	183	#386	#787		197	#924	120	259	167	35
Internal Link Dist (ft)	100	203	100	11000	2568			482	120	200	581	
Turn Bay Length (ft)	150	200	150	150	2000		100	-102	100	100	001	100
Base Capacity (vph)	349	374	411	343	1121		365	595	568	345	663	669
Starvation Cap Reductn	349 0	0	411	0	0		0	0	0	0	003	009
•												
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0 75	0		0 29	0 1.06	0 24	0	0 21	0 26
Reduced v/c Ratio	0.16	1.54	0.49	0.75	0.95		0.38	00.1	0.34	0.77	0.31	0.26
Intersection Summary	11,261		1000		44			100			12-1	

Lanes, Volumes, Timings AJA

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## 2030 Build Weekday Morning Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other	
Cycle Length: 161		
Actuated Cycle Ler	igth: 155.2	
Natural Cycle: 130		
	ated-Uncoordinated	
	s capacity, queue is theoretically	infinite.
	maximum after two cycles.	
	volume exceeds capacity, queue	may be longer.
	maximum after two cycles.	

	<b>1</b> ø₂	€ 23	204	
36 s	36 s	36 s	53 s	
<b>1</b> ø5	V Ø6	<b>↓</b> Ø7	108	
36 s	36 5	36 s	53 \$	all the second second

## 2030 Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	<b>†</b>	۳.	ካ	ተኩ		ሻ	<b>↑</b>	7	ሻ	1	7
Traffic Volume (vph)	52	523	185	243	930	77	118	543	164	174	137	115
Future Volume (vph)	52	523	185	243	930	77	118	543	164	174	137	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99	1.2	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	1810	1599	1662	3401		1770	1881	1546	1671	1749	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00	_	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	1810	1599	1662	3401	<u>, fтт</u> .,	1770	1881	1546	1671	1749	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Adj. Flow (vph)	57	575	203	256	979	81	137	631	191	264	208	174
RTOR Reduction (vph)	0	0	80	0	3	0	0	0	79	0	0	84
Lane Group Flow (vph)	57	575	123	256	1057	0	137	631	112	264	208	90
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases		S	2				- 180	- 3	4			8
Actuated Green, G (s)	9.2	29.4	29.4	26.8	47.0		17.3	47.1	47.1	27.1	56.9	56.9
Effective Green, g (s)	11.2	33.4	33.4	28.8	51.0		19.3	49.1	49.1	29.1	58.9	58.9
Actuated g/C Ratio	0.07	0.21	0.21	0.18	0.33		0.12	0.31	0.31	0.19	0.38	0.38
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0	<u></u>	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	120	386	341	306	1109		218	590	485	310	658	582
v/s Ratio Prot	0.03	c0.32		c0.15	c0.31		0.08	c0.34		c0.16	0.12	
v/s Ratio Perm			0.08						0.07			0.06
v/c Ratio	0.47	1.49	0.36	0.84	0.95		0.63	1.07	0.23	0.85	0.32	0.16
Uniform Delay, d1	69.8	61.5	52.4	61.5	51.5	1 - 2	65.1	53.7	39.7	61.6	34.5	32.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	233.7	0.7	17.7	16.8		5.6	57.0	0.2	19.6	0.3	0.1
Delay (s)	72.7	295.2	53.0	79.2	68.3		70.7	110.7	39.9	81.1	34.8	32.4
Level of Service	E	F	D	Е	E	1.1.1	Е	F	D	F	С	С
Approach Delay (s)		221.2	,		70.5	_		90.9			53.1	-
Approach LOS		F	1	distant.	Е	1000		F	4.33		D	
Intersection Summary	12 1 1 1	<sup>-</sup> ''	the state	1021		1-11	26.0	ALL Y				2
HCM 2000 Control Delay			106.2	H	CM 2000 I	_evel of S	ervice	117 3	F			
HCM 2000 Volume to Capac	city ratio		1.08									
Actuated Cycle Length (s)			156.4		um of lost				16.0			
Intersection Capacity Utilizat Analysis Period (min)	tion		92.5% 15	IC	U Level o	f Service	1 117		F			1 - L.

## 2020 Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

	٦	†	۳ <b>١</b>	L.	Į.	×	ه.	X	$\mathbf{i}$	Ð	×	*
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	1	ኘ	t₽		٦	1	7	٦	1	7
Traffic Volume (vph)	191	956	104	111	547	141	116	160	99	249	458	171
Future Volume (vph)	191	956	104	111	547	141	116	160	99	249	458	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150	1	150	150	1000	0	100	11.11.	100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25	1. State 1.	1	25	1.4	1000	25		11.5111.
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	200	1.00	30	-		30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)	1-215	6.4			60.2	12 2 12		12.8	1100		15.0	1.53
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)	0.0	0,0							•			
Lane Group Flow (vph)	210	1051	114	119	740	0	126	174	108	271	498	186
Turn Type	Prot	NA	Perm	Prot	NA	•	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	TOTIL	1	6	1.2	7	4	1 onn	3	8	1 01111
Permitted Phases	v	-	2		Ū				4			8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase	U	-	<b>_</b>		v				-	v	U	U
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	-0.1	36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1910.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
the second				None	Min			None			None	
Recall Mode v/c Ratio	None 0.67	Min 1.87	Min 0.21	0.54	0.85		None 0.55	0.37	None 0.23	None 0.75	0.83	None 0.32
and the second se	63.2	426.0	10.6	65.7	57.8		65.3	44.5	7.4	64.7	55.3	15.5
Control Delay	0.0	420.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	63.2	426.0	10.6	65.7	57.8		65.3	44.5	7.4	64.7	55.3	15.5
Total Delay		~1428		100	326		106	124		225	389	42
Queue Length 50th (ft)	176		8	177	#525		186	213	0 44	362	#646	118
Queue Length 95th (ft)	278	#1909	59	177			100	482	44	302		110
Internal Link Dist (ft)	150	203	150	150	2568		100	402	100	100	581	100
Turn Bay Length (ft)	150	ECO	150	150	074		100	704	100	100	607	100
Base Capacity (vph)	447	562	549	432	874		447	721	664	443	697	658
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.47	1.87	0.21	0.28	0.85		0.28	0.24	0.16	0.61	0.71	0.28
Intersection Summary			-4182		11000		1	T of m	X-mail	di nun t	-1 Az 6	

Lanes, Volumes, Timings AJA

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## 2020 Build Weekday Evening Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Агеа Туре:	Other				
Cycle Length: 161					
Actuated Cycle Ler	igth: 131.4				
Natural Cycle: 130		1	100	 	
Control Type: Actua	ated-Uncoordinated				
	is capacity, queue is theoretically in	ifinite.			21 1 A M - 1
	maximum after two cycles.				
	volume exceeds capacity, queue n	ay be longer.	1	12 1 1 1	
	maximum after two cycles.				

L Ø1	<b>1</b> ø₂	€ @3	<b>X</b> Ø4	
36 s	36 s	36 s	53 s	I MARKED IN
<b>1</b> ø5	Ø6	Ø7	N 28	
36 s	36 s	36 s	53 s	

# 2020 Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

	۲	t	r <b>4</b>	ų	Ŧ	N	هي.	X	¥	÷	×	*
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWF
Lane Configurations	٦	1	7	۲	<b>↑</b> ⊅		ሻ	1	7	ሻ	1	7
Traffic Volume (vph)	191	956	104	111	547	141	116	160	99	249	458	171
Future Volume (vph)	191	956	104	111	547	141	116	160	99	249	458	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1745	3471		1805	1900	1561	1787	1837	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1900	1615	1745	3471		1805	1900	1561	1787	1837	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	210	1051	114	119	588	152	126	174	108	271	498	186
RTOR Reduction (vph)	0	0	72	0	14	0	0	0	81	0	0	77
Lane Group Flow (vph)	210	1051	42	119	726	0	126	174	27	271	498	109
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	20.9	34.8	34.8	14.6	28.5		14.8	30.9	30.9	24.6	40.7	40.7
Effective Green, g (s)	22.9	38.8	38.8	16.6	32.5		16.8	32.9	32.9	26.6	42.7	42.7
Actuated g/C Ratio	0.17	0.30	0.30	0.13	0.25		0.13	0.25	0.25	0.20	0.33	0.33
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	_	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	315	563	478	221	861		231	477	392	363	599	504
v/s Ratio Prot	c0.12	c0.55		0.07	0.21		0.07	0.09		c0.15	c0.27	
v/s Ratio Perm	1 x 1		0.03						0.02			0.07
v/c Ratio	0.67	1.87	0.09	0.54	0.84		0.55	0.36	0.07	0.75	0.83	0.22
Uniform Delay, d1	50.4	46.1	33.3	53.6	46.8		53.5	40.4	37.3	49.0	40.8	32.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.3	396.8	0.1	2.5	7.6		2.6	0.5	0.1	8.1	9.6	0.2
Delay (s)	55.7	442.9	33.4	56.1	54.4		56.1	40.9	37.4	57.1	50.3	32.2
Level of Service	E	F	С	E	D		Е	D	D	E	D	С
Approach Delay (s)		349.8			54.6			44.7			48.7	
Approach LOS		F		s.t.	D			D			D	3.54
Intersection Summary			5			Sale -	1728					
HCM 2000 Control Delay	1.00		164.8	HC	CM 2000 L	evel of S	ervice		F			2
HCM 2000 Volume to Capa	city ratio		1.16									
Actuated Cycle Length (s)			130.9		m of lost f				16.0			
Intersection Capacity Utiliza	tion	1	100.3%	IC	J Level of	Service			G			
Analysis Period (min)			15			N grav A						

# 2020 Build Saturday MIdday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	7	٦	A		٦	1	7	۲	1	7
Traffic Volume (vph)	109	510	104	133	625	156	148	239	153	141	192	132
Future Volume (vph)	109	510	104	133	625	156	148	239	153	141	192	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150		0	100	1. A. 1.	100	100	Sec. 2	100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25	1.1	Jan 1976	25	- H	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	100	30			30		- 10.	30	-	1. S. S. S.	30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4	- West	1.0.0	60.2		10.00	12.8			15.0	11-24
Peak Hour Factor	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)	0,0	170	0.0	• • •		0,0			0,0			
Lane Group Flow (vph)	115	537	109	166	976	0	166	269	172	157	213	147
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1 Onn	1	6		7	4	T Onin	3	8	Tom
Permitted Phases	0	-	2		U				4	U	U	8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase	v	2	<u> </u>		U			-		U	Ū	Ų
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0	0-1	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	man and the second	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
	None	Min	Min	None	Min		None	None	None	None	None	None
Recall Mode		0.95		0.57	0.83		0.56	0.65	0.40	0.55	0.55	0.35
v/c Ratio	0.47		0.19	51.3	42.2	-	51.1	47.4	16.8		44.8	13.6
Control Delay	52.2	66.0	9.3				the second se			51.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	66.0	9.3	51.3	42.2		51.1	47.4	16.8	51.3	44.8	13.6
Queue Length 50th (ft)	73	354	3	105	314		105	167	32	99	130	18
Queue Length 95th (ft)	153	#789	53	179	#474		202	292	101	196	238	78
Internal Link Dist (ft)	450	203	150	450	2568		400	482	400	400	581	400
Turn Bay Length (ft)	150	500	150	150	4470		100	070	100	100		100
Base Capacity (vph)	545	568	559	527	1170		545	879	784	545	842	784
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	1947	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.95	0.19	0.31	0.83		0.30	0.31	0.22	0.29	0.25	0.19
Intersection Summary		28.5		a - 71			12013	100	1	2 05		-N.51

Lanes, Volumes, Timings AJA

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### 2020 Build Saturday MIdday Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

 Area Type:
 Other

 Cycle Length: 161

 Actuated Cycle Length: 108.2

 Natural Cycle: 65

 Control Type: Actuated-Uncoordinated

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

 Queue shown is maximum after two cycles.

L Ø1	Ø2		X Ø4	
36 s	36 s	36 s	53 s	
<b>1</b> Ø5		<b>∞</b> <sup>#</sup> Ø7	708	
36 \$	36.5	36 5	53 s	

# 2020 Build Saturday MIdday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	7	٦	<b>ተ</b> ኩ		٦	1	7	۲	1	ť
Traffic Volume (vph)	109	510	104	133	625	156	148	239	153	141	192	132
Future Volume (vph)	109	510	104	133	625	156	148	239	153	141	192	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1881	1615	1745	3474		1805	1900	1561	1805	1818	1561
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1881	1615	1745	3474		1805	1900	1561	1805	1818	1561
Peak-hour factor, PHF	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	115	537	109	166	781	195	166	269	172	157	213	147
RTOR Reduction (vph)	0	0	71	0	11	0	0	0	90	0	0	90
Lane Group Flow (vph)	115	537	38	166	965	0	166	269	82	157	213	57
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	12.8	28.7	28.7	16.1	32.0		15.8	21.6	21.6	15.3	21.1	21.1
Effective Green, g (s)	14.8	32.7	32.7	18.1	36.0		17.8	23.6	23.6	17.3	23.1	23.1
Actuated g/C Ratio	0.14	0.30	0.30	0.17	0.33		0.17	0.22	0.22	0.16	0.21	0.21
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	248	571	490	293	1161		298	416	342	289	389	334
v/s Ratio Prot	0.06	c0.29		c0.10	c0.28		c0.09	c0.14		0.09	0.12	
v/s Ratio Perm	0.01.347		0.02			1			0.05			0.04
v/c Ratio	0.46	0.94	0.08	0.57	0.83		0.56	0.65	0.24	0.54	0.55	0.17
Uniform Delay, d1	42.8	36.6	26.7	41.2	33.0		41.3	38.3	34.7	41.6	37.6	34.5
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	23.8	0.1	2.5	5.2		2.3	3.4	0.4	2.1	1.6	0.2
Delay (s)	44.2	60.4	26.8	43.7	38.2	_	43.6	41.7	35.0	43.6	39.2	34.7
Level of Service	D	Е	С	D	D	20142	D	D	D	D	D	С
Approach Delay (s)		53.1			39.0			40.3			39.3	
Approach LOS	A.C. 18	D			D			D			D	No.
Intersection Summary				5. m "		<u></u>	1 - 14	17.1	and the			
HCM 2000 Control Delay			42.9	H	CM 2000 L	evel of S	ervice		D		8-250	1.5
HCM 2000 Volume to Capac	city ratio		0.72									
Actuated Cycle Length (s)			107.7		um of lost				16.0			
Intersection Capacity Utilizat	ion		67.9%	IC	U Level of	Service			С			
Analysis Period (min)			15						5 C V.			

# 2030 No Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

	۲	†	4	L.	Ļ	N	ف	×	4	£	×	*
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	7	ኘ	<u>†</u> ‡		٦	1	1	۲	1	7
Traffic Volume (vph)	57	540	206	255	1003	72	114	602	182	193	152	115
Future Volume (vph)	57	540	206	255	1003	72	114	602	182	193	152	115
Ideal Flow (vphpi)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25		_	25	A	1.54	25	П.,		25	- 15 - C	
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30	100	-	30		97 I J	30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2	S 0		12.8	-		15.0	
Peak Hour Factor	0.91	0.4	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Heavy Vehicles (%)	1 70	576	170	570	4 /0	1070	270	1 /0	I /0	0 /0	J /0	1 /0
Shared Lane Traffic (%)	00	500	000	000	1132	0	133	700	212	292	230	174
Lane Group Flow (vph)	63	593	226	268		0						
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	10-11-11-1	7	4		3	8	
Permitted Phases			2						4			8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	1.00	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min	-7	None	None	None	None	None	None
v/c Ratio	0.44	1.61	0.56	0.86	1.02		0.62	1.19	0.38	0.90	0.34	0.26
Control Delay	78.8	326.1	36.7	87.0	83.5		78.4	149.5	21.4	91.4	37.6	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	11	0.0	0.0	0.0	0.0	0.0	0.0
			36.7	87.0	83.5		78.4	149.5	21.4	91.4	37.6	12.7
Total Delay	78.8	326.1										
Queue Length 50th (ft)	64	~901	118	273	~682		135	~903	77	302	172	35
Queue Length 95th (ft)	115	#1143	214	#416	#881		193	#1075	142	289	183	44
Internal Link Dist (ft)	150	203	150	450	2568		400	482	100	100	581	400
Turn Bay Length (ft)	150		150	150	4440		100	500	100	100	070	100
Base Capacity (vph)	343	368	406	338	1110		360	586	561	340	673	670
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0.50	0	0	0	0	0	0
Reduced v/c Ratio	0.18	1.61	0.56	0.79	1.02		0.37	1.19	0.38	0.86	0.34	0.26
Intersection Summary			81 181		1-24	2516	1.1	1000	1 : 12-	4120	1 2	

Lanes, Volumes, Timings AJA

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### 2030 No Build Weekday Morning Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other						
Cycle Length: 161							
Actuated Cycle Ler	igth: 157.5						
Natural Cycle: 130			1.5	1		-10.7	
	ated-Uncoordinated						
- Volume exceed	s capacity, queue is theoretic	ally infinite.	17. A		네 나라 같은		
Queue shown is	maximum after two cycles.						
# 95th percentile	volume exceeds capacity, que	ue may be long	ger.			i kuu	
Contraction and a second second second second second	maximum after two cycles.	CALIFORNIA CONTROLOGICA					

	¶ø₂	103	204	
36 s	36 \$	36 s	53.5	and the second second
<b>1</b> ø5	↓ ∅6	<b>₩</b> Ø7	108	
36 s	36 5	36 s	53 5	

### 2030 No Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	1	7	٦	ተኩ		٦	1	7	ሻ	1	۲
Traffic Volume (vph)	57	540	206	255	1003	72	114	602	182	193	152	115
Future Volume (vph)	57	540	206	255	1003	72	114	602	182	193	152	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	1810	1599	1662	3410		1770	1881	1546	1671	1749	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	1810	1599	1662	3410	1.1	1770	1881	1546	1671	1749	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Adj. Flow (vph)	63	593	226	268	1056	76	133	700	212	292	230	174
RTOR Reduction (vph)	0	0	81	0	3	0	0	0	79	0	0	75
Lane Group Flow (vph)	63	593	145	268	1129	0	133	700	133	292	230	99
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2					1.12-13	4			8
Actuated Green, G (s)	9.8	29.4	29.4	27.6	47.2		17.1	47.1	47.1	28.7	58.7	58.7
Effective Green, g (s)	11.8	33.4	33.4	29.6	51.2		19.1	49.1	49.1	30.7	60.7	60.7
Actuated g/C Ratio	0.07	0.21	0.21	0.19	0.32		0.12	0.31	0.31	0.19	0.38	0.38
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0	1.11	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	125	380	336	309	1099		212	581	478	323	668	590
v/s Ratio Prot	0.04	c0.33		c0.16	c0.33		0.08	c0.37		c0.17	0.13	
v/s Ratio Perm			0.09					v.	0.09			0.06
v/c Ratio	0.50	1.56	0.43	0.87	1.03		0.63	1.20	0.28	0.90	0.34	0.17
Uniform Delay, d1	70.7	62.7	54.5	62.7	53.8		66.5	54.9	41.4	62.6	34.9	32.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.2	264.8	0.9	21.7	34.4		5.7	107.8	0.3	27.1	0.3	0.1
Delay (s)	73.9	327.5	55.4	84.4	88.2		72.2	162.6	41.8	89.7	35.2	32.5
Level of Service	E	F	E	F	F		Е	F	D	F	D	С
Approach Delay (s)		239.7			87.5			126.6			57.4	
Approach LOS		F			F			F	1111	- Proven	E	
Intersection Summary		1.57.4	1.00			1K- 18	uh R	r á teb		1.13	113	67.1
HCM 2000 Control Delay			125.8	H	CM 2000	Level of S	ervice		F			
HCM 2000 Volume to Capa	city ratio		1.16						10.0			
Actuated Cycle Length (s)	5 H . B		158.8		um of lost				16.0			
Intersection Capacity Utiliza Analysis Period (min)	tion		98.3% 15	IC	CU Level o	f Service			F			

#### 2030 No Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	7	٦	<u></u> ↑1→		۲	1	1	7	1	1
Traffic Volume (vph)	211	1026	216	110	562	137	109	177	110	275	507	123
Future Volume (vph)	211	1026	216	110	562	137	109	177	110	275	507	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150	10 J 10	0	100	100	100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25	-		25			25		1.1.1
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	10-10-	30		12.2.3	30		- 77.	30			30	
Link Distance (ft)		283			2648			562			661	1
Travel Time (s)		6.4	h Finis	5.31	60.2	8. R.T.		12.8			15.0	
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)	010	0,10	0.0	0,0						. , 0		
Lane Group Flow (vph)	232	1127	237	118	751	0	118	192	120	299	551	134
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	1 onn	1	6		7	4	1 onn	3	8	1 0111
Permitted Phases	v	2	2		v				4	0	Ŭ	8
Detector Phase	5	2	2	1	6	W	7	4	4	3	8	8
Switch Phase	0	2	2		U			- T	Ŧ		U	U
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Maximum Green (s)	4.0	20.0 6.0	6.0	4.0	6.0		4.0	47.0	47.0	4.0	47.0	4.0
Yellow Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
All-Red Time (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Lost Time Adjust (s)			-4.0	-2.0	-4.0		4.0	-2.0	4.0	-2.0	4.0	4.0
Total Lost Time (s)	4.0	4.0										
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	A	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.72	2.04	0.44	0.56	0.91		0.55	0.39	0.24	0.80	0.86	0.22
Control Delay	67.2	501.7	26.1	68.4	66.5		68.1	46.0	9.3	69.3	56.6	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	501.7	26.1	68.4	66.5		68.1	46.0	9.3	69.3	56.6	9.2
Queue Length 50th (ft)	199	~1589	96	102	343		102	146	3	251	455	11
Queue Length 95th (ft)	306	#2050	197	176	#534		176	235	56	#421	#755	63
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150	1.1		100	11	100	100	1.00	100
Base Capacity (vph)	422	552	542	408	827		422	681	633	418	658	628
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.55	2.04	0.44	0.29	0.91		0.28	0.28	0.19	0.72	0.84	0.21
Intersection Summary						2.4	104			S	1, 1927	

Lanes, Volumes, Timings AJA

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### 2030 No Build Weekday Evening Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other			
Cycle Length: 161				
Actuated Cycle Len	gth: 137.5			
Natural Cycle: 140				A STAR STAR W
Control Type: Actua	ted-Uncoordinated			
- Volume exceed	s capacity, queue is theoretically	nfinite.	11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
	maximum after two cycles.			
	volume exceeds capacity, queue	nay be longer.		
Queue shown is	maximum after two cycles.			

	↑ø2	103	204	
36 s	36 s	36 5	53 s	
¶ø₅	<b>↓</b> Ø6	<b>⊸</b> Ø7	508	
36 s	36.5	36 5	53 s	monte and the state

### 2030 No Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٢	<b>†</b>	7	٦	ተኈ		٦	1	7	۲	1	7
Traffic Volume (vph)	211	1026	216	110	562	137	109	177	110	275	507	123
Future Volume (vph)	211	1026	216	110	562	137	109	177	110	275	507	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Fit Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1745	3476		1805	1900	1561	1787	1837	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1900	1615	1745	3476	31 -	1805	1900	1561	1787	1837	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	1127	237	118	604	147	118	192	120	299	551	134
RTOR Reduction (vph)	0	0	72	0	13	0	0	0	85	0	0	75
Lane Group Flow (vph)	232	1127	165	118	738	0	118	192	35	299	551	59
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA	No. of	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	22.5	36.0	36.0	14.7	28.2		14.4	34.0	34.0	26.7	46.3	46.3
Effective Green, g (s)	24.5	40.0	40.0	16.7	32.2		16.4	36.0	36.0	28.7	48.3	48.3
Actuated g/C Ratio	0.18	0.29	0.29	0.12	0.23		0.12	0.26	0.26	0.21	0.35	0.35
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	321	553	470	212	814		215	497	408	373	645	543
v/s Ratio Prot	c0.13	c0.59		0.07	0.21		0.07	0.10		c0.17	c0.30	
v/s Ratio Perm		- 1 y 1	0.10						0.02			0.04
v/c Ratio	0.72	2.04	0.35	0.56	0.91		0.55	0.39	0.09	0.80	0.85	0.11
Uniform Delay, d1	53.2	48.7	38.4	56.9	51.1		57.0	41.6	38.3	51.6	41.3	30.0
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.8	473.4	0.5	3.1	13.6		2.9	0.5	0.1	11.7	10.7	0.1
Delay (s)	61.1	522.1	38.9	60.0	64.8		59.9	42.1	38.4	63.4	52.0	30.1
Level of Service	E	F	D	E	E		E	D	D	E	D	С
Approach Delay (s)		383.3			64.1			45.9			52.5	
Approach LOS		F			Е		1,2%	D			D	
Intersection Summary	1.5			24-1-				-		14	57.7	
HCM 2000 Control Delay			190.5	H	CM 2000 I	Level of S	Service		F		1.1	
HCM 2000 Volume to Capa	city ratio		1.24									
Actuated Cycle Length (s)			137.4		m of lost				16.0			
Intersection Capacity Utiliza Analysis Period (min)	ition		106.2% 15	IC	U Level o	f Service			G			

### 2030 No Build Saturday Midday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	۲,	1	1	ሻ	<u></u> †₽		۲	1	1	7	1	1
Traffic Volume (vph)	121	535	115	137	665	157	147	266	169	157	213	135
Future Volume (vph)	121	535	115	137	665	157	147	266	169	157	213	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150		0	100		100	100	1.0	100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25	100-00	1. 1. 1. 1.	25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	- 17- L	30	1.000	5- 9 F T	30	5.717.1		30	19-11- Z		30	100
Link Distance (ft)		283			2648			562			661	
Travel Time (s)	1.00	6.4			60.2		100	12.8	-	-6.14	15.0	2 EC.2
Peak Hour Factor	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	127	563	121	171	1027	0	165	299	190	174	237	150
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases		_	2						4			8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase	•	-	_							Ū	Ū	
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.50	1.04	0.22	0.59	0.93		0.57	0.68	0.42	0.58	0.55	0.33
	55.3	89.9	11.9	54.5	53.1		54.4	48.9	18.9	54.2	44.1	13.2
Control Delay	0.0	0.0	0.0	0.0	0.0		0.0	40.9	0.0	0.0	0.0	0.0
Queue Delay		89.9	11.9	54.5	53.1		54.4	48.9	18.9	54.2	44.1	13.2
Total Delay	55.3	~440	10	04.0 115	370		04.4 111	40.9	43	04.2 117	44.1	
Queue Length 50th (ft)	86											20
Queue Length 95th (ft)	176	#915	69	194	#585		213	336	122	226	269	82
Internal Link Dist (ft)	450	203	450	450	2568		400	482	400	400	581	400
Turn Bay Length (ft)	150	540	150	150	4440		100	040	100	100	004	100
Base Capacity (vph)	521	543	539	504	1110		521	840	754	521	804	754
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	1.00	0	0	0	0	0	0
Reduced v/c Ratio	0.24	1.04	0.22	0.34	0.93		0.32	0.36	0.25	0.33	0.29	0.20
Intersection Summary		1. 18	1, 2, 410	16 16 a	1 - A.J	R 6	e – sevi		2.12		S.K.	

Lanes, Volumes, Timings AJA

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### 2030 No Build Saturday Midday Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other			
Cycle Length: 161				
Actuated Cycle Len	gth: 113.7			
Natural Cycle: 70				
Control Type: Actua	ted-Uncoordinated			
<ul> <li>Volume exceed</li> </ul>	s capacity, queue is theoret	tically infinite.		
Queue shown is	maximum after two cycles.			
# 95th percentile	volume exceeds capacity, q	ueue may be longer.		
Queue shown is	maximum after two cycles.			

Ø1	¶ø₂	<b>₽</b> 03	<b>X</b> Ø4	
36 s	36 s	36 s	53 s	
¶ø₅	↓ Ø6	<b>↓</b> Ø7	<b>X</b> 28	
36 s	36 s	36.5	53 s	and the second s

# 2030 No Build Saturday Midday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	1	7	ኘ	<u></u> †î≽		ሽ	1	7	7	1	7
Traffic Volume (vph)	121	535	115	137	665	157	147	266	169	157	213	135
Future Volume (vph)	121	535	115	137	665	157	147	266	169	157	213	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1881	1615	1745	3479		1805	1900	1561	1805	1818	1561
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1881	1615	1745	3479		1805	1900	1561	1805	1818	1561
Peak-hour factor, PHF	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	127	563	121	171	831	196	165	299	190	174	237	150
RTOR Reduction (vph)	0	0	72	0	11	0	0	0	88	0	0	88
Lane Group Flow (vph)	127	563	49	171	1016	0	165	299	102	174	237	62
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	13.9	28.8	28.8	17.0	31.9		16.2	24.4	24.4	16.8	25.0	25.0
Effective Green, g (s)	15.9	32.8	32.8	19.0	35.9		18.2	26.4	26.4	18.8	27.0	27.0
Actuated g/C Ratio	0.14	0.29	0.29	0.17	0.32		0.16	0.23	0.23	0.17	0.24	0.24
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	253	545	468	293	1105		290	443	364	300	434	372
v/s Ratio Prot	0.07	c0.30		c0.10	c0.29		0.09	c0.16		c0.10	0.13	
v/s Ratio Perm			0.03						0.07			0.04
v/c Ratio	0.50	1.03	0.10	0.58	0.92		0.57	0.67	0.28	0.58	0.55	0.17
Uniform Delay, d1	44.9	40.1	29.3	43.4	37.2		43.8	39.4	35.5	43.5	37.6	34.1
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	47.3	0.1	3.0	12.0		2.6	4.0	0.4	2.7	1.4	0.2
Delay (s)	46.5	87.4	29.4	46.3	49.1		46.3	43.4	35.9	46.2	39.0	34.3
Level of Service	D	F	С	D	D		D	D	D	D	D	С
Approach Delay (s)		72.4			48.7			42.0			40.0	
Approach LOS		E			D			D			D	
Intersection Summary	18. <sup>44</sup> 1.6	- F 1	P. 4.	157	1.1	88. I P	100	2-1-1-				
HCM 2000 Control Delay		1.51.1	51.8	H	CM 2000 I	Level of S	ervice		D			
HCM 2000 Volume to Capac	ity ratio		0.75									
Actuated Cycle Length (s)			113.0		um of lost			1.0	16.0			
Intersection Capacity Utilizati	on		71.8%	IC	U Level o	f Service			С			
Analysis Period (min)			15									
Critical Lana Croup												

### 2030 Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NW
Lane Configurations	ሻ	1	1	ሻ	<b>↑</b> Ъ		۲	1	7	ሻ	1	
Traffic Volume (vph)	57	571	206	262	1022	83	124	602	182	193	152	12
Future Volume (vph)	57	571	206	262	1022	83	124	602	182	193	152	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.0
Frt	1417		0.850		0.989				0.850			0.85
Flt Protected	0.950			0.950		1000	0.950			0.950	The second	
Satd. Flow (prot)	1687	1810	1599	1662	3404	0	1770	1881	1546	1671	1749	154
Flt Permitted	0.950	110.2.2		0.950	12 7 2 3	1.000	0.950	1000	-	0.950		
Satd. Flow (perm)	1687	1810	1599	1662	3404	0	1770	1881	1546	1671	1749	154
Satd. Flow (RTOR)			102		5	1.1.9			115		- Fe	13
Adj. Flow (vph)	63	627	226	276	1076	87	144	700	212	292	230	18
Lane Group Flow (vph)	63	627	226	276	1163	0	144	700	212	292	230	18
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perr
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			
Detector Phase	5	2	2	1	6	ALCO	7	4	4	3	8	ns H
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.1
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	12 - 14	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Ye
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.44	1.71	0.56	0.87	1.04		0.64	1.20	0.38	0.90	0.35	0.28
Control Delay	78.9	366.7	36.8	88.9	89.5		78.4	151.1	21.5	91.8	38.6	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.9	366.7	36.8	88.9	89.5		78.4	151.1	21.5	91.8	38.6	13.0
Queue Length 50th (ft)	64	~975	118	283	~718		147	~903	77	302	174	38
Queue Length 95th (ft)	115	#1222	214	#436	#915		205	#1075	142	289	186	46
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150	20	150	150			100	10.10.9	100	100		100
Base Capacity (vph)	342	367	405	337	1114		359	584	559	339	660	664
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	(
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	(
Storage Cap Reductn	0	0	0	0	0	1.00	Ő	0	0	0	0	(
Reduced v/c Ratio	0.18	1.71	0.56	0.82	1.04		0.40	1.20	0.38	0.86	0.35	0.28
ntersection Summary		- 24.5	-412		1. 3					10000	1 - 1 - <b>5</b> -	162
Cycle Length: 161												
Actuated Cycle Length: 157	9								L		2,61	52.
Vatural Cycle: 130												
Control Type: Actuated-Unc	oordinated						4,33				V	

Lanes, Volumes, Timings AJA

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### 2030 Build Weekday Morning Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

- ~ 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.

L <sub>Ø1</sub>	¶ø₂	<b>1</b> 23	× 04	
36 s	36 s	36 s	53 s	
<b>1</b> Ø5	↓ Ø6	<b>∞</b> Ø7	×28	
36 s	36 s	36 s	53 s	

### 2030 Build Weekday Morning Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	۲	<b>•</b>	1	ኘ	<u></u> ↑î→		۳	1	7	3	↑	7
Traffic Volume (vph)	57	571	206	262	1022	83	124	602	182	193	152	123
Future Volume (vph)	57	571	206	262	1022	83	124	602	182	193	152	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	1810	1599	1662	3403		1770	1881	1546	1671	1749	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	1810	1599	1662	3403		1770	1881	1546	1671	1749	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.66	0.66	0.66
Adj. Flow (vph)	63	627	226	276	1076	87	144	700	212	292	230	186
RTOR Reduction (vph)	0	0	81	0	3	0	0	0	80	0	0	81
Lane Group Flow (vph)	63	627	145	276	1160	0	144	700	132	292	230	105
Heavy Vehicles (%)	7%	5%	1%	5%	4%	16%	2%	1%	1%	8%	5%	1%
Turn Type	Prot	NA	Perm	Prot	NA	12111	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2						4			8
Actuated Green, G (s)	9.8	29.3	29.3	28.0	47.5		18.1	47.1	47.1	28.7	57.7	57.7
Effective Green, g (s)	11.8	33.3	33.3	30.0	51.5		20.1	49.1	49.1	30.7	59.7	59.7
Actuated g/C Ratio	0.07	0.21	0.21	0.19	0.32		0.13	0.31	0.31	0.19	0.38	0.38
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	125	378	334	313	1101	See all.	223	580	477	322	656	580
v/s Ratio Prot	0.04	c0.35		c0.17	c0.34		0.08	c0.37		c0.17	0.13	
v/s Ratio Perm			0.09						0.09			0.07
v/c Ratio	0.50	1.66	0.44	0.88	1.05		0.65	1.21	0.28	0.91	0.35	0.18
Uniform Delay, d1	70.8	62.9	54.7	62.8	53.8		66.1	55.0	41.6	62.8	35.8	33.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.2	308.0	0.9	23.9	42.3		6.3	108.6	0.3	27.6	0.3	0.2
Delay (s)	74.0	370.9	55.6	86.7	96.1		72.4	163.6	41.9	90.4	36.1	33.5
Level of Service	E	F	E	F	F		E	F	D	F	D	С
Approach Delay (s)		272.7			94.3			126.7			57.8	
Approach LOS	N	F	1.1		F			F			Е	
Intersection Summary	19.15	1.155 (	25.8					111.0		0.1		E. E.
HCM 2000 Control Delay			136.0	H	CM 2000 L	_evel of Se	ervice		F			
HCM 2000 Volume to Capac	city ratio		1.19									
Actuated Cycle Length (s)		162.5	159.1		im of lost				16.0			
Intersection Capacity Utilizat Analysis Period (min)	ion	181-2	100.3% 15	IC	U Level of	f Service			G			

### 2030 Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	1	ሻ	A⊅		۲	1	1	۲	1	1
Traffic Volume (vph)	211	1051	216	119	598	151	124	177	110	275	507	131
Future Volume (vph)	211	1051	216	119	598	151	124	177	110	275	507	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	12	12	12	12	11	12	11	11
Storage Length (ft)	150		150	150	A	0	100	1.1.1	100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25	216		25			25			25	110.40	1,5,040
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)	5 C - L	30	1.1		30	14.1	181 F	30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)	- 8 a 1	6.4	1.1		60.2		1112	12.8			15.0	32.1
Peak Hour Factor	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Shared Lane Traffic (%)						-						
Lane Group Flow (vph)	232	1155	237	128	805	0	135	192	120	299	551	142
Turn Type	Prot	NA	Perm	Prot	NA	Ũ	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2	T Offin	1	6		7	4	T OIIII	3	8	1 onn
Permitted Phases	U	-	2						4	Ū	0	8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase	U	-	-		•					Ū	0	U
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	47.0	47.0	4.0	47.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Lost Time Adjust (s) Total Lost Time (s)	-2.0	4.0	-4.0	4.0	4.0		4.0	-2.0	4.0	-2.0	4.0	-2.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes 3.0		Yes 3.0	Yes 3.0	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0					3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	Min		None	None	None	None	None	None
v/c Ratio	0.72	2.16	0.45	0.58	0.99		0.58	0.38	0.24	0.81	0.86	0.23
Control Delay	68.3	552.9	27.2	69.1	80.4		68.8	45.5	9.1	70.8	58.4	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	552.9	27.2	69.1	80.4		68.8	45.5	9.1	70.8	58.4	10.4
Queue Length 50th (ft)	201	~1674	99	112	381		118	147	3	255	464	16
Queue Length 95th (ft)	310	#2159	203	189	#607		198	234	55	#430	#771	72
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		100
Base Capacity (vph)	417	535	528	403	817		417	673	627	413	651	622
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	12.772	0	0	0	0	0	0
Reduced v/c Ratio	0.56	2.16	0.45	0.32	0.99		0.32	0.29	0.19	0.72	0.85	0.23
Intersection Summary	- Contra		en e F		11.25	1.37	1-1			1 39	61-15	

Lanes, Volumes, Timings AJA

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### 2030 Build Weekday Evening Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

Area Type:	Other					
Cycle Length: 161						
Actuated Cycle Len	gth: 139.1					
Vatural Cycle: 150			Sec. 2			
Control Type: Actua	ited-Uncoordinated					
<ul> <li>Volume exceed</li> </ul>	s capacity, queue is theoretic	ally infinite.			d - 1 - 1	A a
Queue shown is	maximum after two cycles.					
\$ 95th percentile	volume exceeds capacity, qu	eue may be longer.			2014 N	
	maximum after two cycles.					

L <sub>Ø1</sub>	1 <sub>Ø2</sub>	<b>1</b> 03	<b>X</b> Ø4	
36 s	36 s	36 5	53 s	
Ϊøs	↓ ø6	Ø7	28	
36 s	36 5	36 s	53 s	A THE REPORT OF

### 2030 Build Weekday Evening Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	٦	1	۳	ሻ	↑î≽		ሻ	1	ř	ሻ	1	7
Traffic Volume (vph)	211	1051	216	119	598	151	124	177	110	275	507	131
Future Volume (vph)	211	1051	216	119	598	151	124	177	110	275	507	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1900	1615	1745	3473		1805	1900	1561	1787	1837	1546
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1900	1615	1745	3473		1805	1900	1561	1787	1837	1546
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	232	1155	237	128	643	162	135	192	120	299	551	142
RTOR Reduction (vph)	0	0	73	0	13	0	0	0	84	0	0	75
Lane Group Flow (vph)	232	1155	164	128	792	0	135	192	36	299	551	67
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	162 <u>-</u>		2						4			8
Actuated Green, G (s)	22.7	35.3	35.3	15.6	28.2		15.8	35.3	35.3	26.8	46.3	46.3
Effective Green, g (s)	24.7	39.3	39.3	17.6	32.2		17.8	37.3	37.3	28.8	48.3	48.3
Actuated g/C Ratio	0.18	0.28	0.28	0.13	0.23		0.13	0.27	0.27	0.21	0.35	0.35
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	320	537	456	220	804		231	509	418	370	638	537
v/s Ratio Prot	c0.13	c0.61		0.07	0.23		0.07	0.10		c0.17	c0.30	
v/s Ratio Perm			0.10						0.02			0.04
v/c Ratio	0.72	2.15	0.36	0.58	0.98		0.58	0.38	0.09	0.81	0.86	0.12
Uniform Delay, d1	53.9	49.9	39.8	57.2	53.2		57.1	41.4	38.1	52.5	42.3	30.9
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	524.1	0.5	3.9	27.8		3.7	0.5	0.1	12.2	11.7	0.1
Delay (s)	61.9	573.9	40.3	61.1	81.0		60.9	41.9	38.2	64.7	53.9	31.0
Level of Service	E	F	D	E	F		Е	D	D	E	D	С
Approach Delay (s)		422.9			78.2			46.6			53.9	
Approach LOS		F			Е			D			D	
Intersection Summary			1-41		XX	- 1 I		1.113		1	49	
HCM 2000 Control Delay			208.7	HC	CM 2000 L	_evel of S	ervice		F		al an air	
HCM 2000 Volume to Capa	city ratio		1.27									
Actuated Cycle Length (s)			139.0		m of lost				16.0			
Intersection Capacity Utiliza	tion		108.8%	IC	U Level of	f Service			G			
Analysis Period (min)			15									

### 2030 Build Saturday Mldday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	ሻ	1	1	۲	<b>↑</b> 1≽		۲	1	1	۲	1	7
Traffic Volume (vph)	121	559	115	144	686	169	160	266	169	157	213	143
Future Volume (vph)	121	559	115	144	686	169	160	266	169	157	213	143
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.970				0.850			0.850
Flt Protected	0.950			0.950	1423		0.950	61 T	1.1	0.950		
Satd. Flow (prot)	1805	1881	1615	1745	3474	0	1805	1900	1561	1805	1818	1561
Flt Permitted	0.950	7.0		0.950		-	0.950	1 × 0		0.950	1. Mar 1.	
Satd. Flow (perm)	1805	1881	1615	1745	3474	0	1805	1900	1561	1805	1818	1561
Satd. Flow (RTOR)			102	51.6	17			1.17	115	1. S.		115
Adj. Flow (vph)	127	588	121	180	858	211	180	299	190	174	237	159
Lane Group Flow (vph)	127	588	121	180	1069	0	180	299	190	174	237	159
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6	11111	7	4		3	8	
Permitted Phases	Ű	_	2						4		Ū	8
Detector Phase	5	2	2	1	6		7	4	4	3	8	8
Switch Phase	v	-			v		•			Ū	Ū	Ű
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	A land	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.0	18.0	18.0	11.0	18.0		11.0	18.0	18.0	11.0	18.0	18.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	15.12	36.0	53.0	53.0	36.0	53.0	53.0
Total Split (%)	22.4%	22.4%	22.4%	22.4%	22.4%		22.4%	32.9%	32.9%	22.4%	32.9%	32.9%
Maximum Green (s)	30.0	28.0	28.0	30.0	28.0		30.0	47.0	47.0	30.0	47.0	47.0
Yellow Time (s)	4.0	6.0	6.0	4.0	6.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-4.0	-4.0	-2.0	-4.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	-2.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	4.0 Lead			Lead			Lead			Lead		
	Yes	Lag Yes	Lag Yes	Yes	Lag Yes	100.10	Yes	Lag Yes	Lag Yes	Yes	Lag Yes	Lag Yes
Lead-Lag Optimize?			3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	3.0	3.0									and the second se	
Recall Mode	None	Min	Min	None	Min 0.95	S DATE	None	None	None	None	None	None
v/c Ratio	0.51	1.09	0.23	0.60			0.59	0.68	0.42	0.58	0.57	0.36
Control Delay	56.0	106.2	12.1	54.8	57.1		54.6	49.4	19.1	54.8	46.1	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	106.2	12.1	54.8	57.1		54.6	49.4	19.1	54.8	46.1	15.0
Queue Length 50th (ft)	87	~486	10	122	394		122	198	44	118	153	25
Queue Length 95th (ft)	177	#977	69	204	#623		231	339	123	228	275	93
Internal Link Dist (ft)	450	203	450	450	2568		400	482	400	400	581	400
Turn Bay Length (ft)	150	500	150	150	4404		100	00.4	100	100	707	100
Base Capacity (vph)	517	539	535	500	1121		517	834	749	517	797	749
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.25	1.09	0.23	0.36	0.95		0.35	0.36	0.25	0.34	0.30	0.21
Intersection Summary	1.2.25	1.1	التشاري ال						3 &			191 Q 1
Cycle Length: 161												
Actuated Cycle Length: 114	.6				1.1.1							2
Natural Cycle: 75												
Control Type: Actuated-Unc	coordinated											
		_	_	_	_			_			_	

Lanes, Volumes, Timings AJA

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### 2030 Build Saturday MIdday Peak Hour 3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

- ~ 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.

L <sub>Ø1</sub>	<b>1</b> Ø2	<b>1</b> 03	2 04	
36 s	36 s	36 s	53 s	
<b>1</b> ø5	<b>↓</b> Ø6	<b>●</b> Ø7	108	
36 s	36 s	36 s	53 s	

### 2030 Build Saturday MIdday Peak Hour

3: NH Route 125 (Calef Highway) & NH Route 9 (Littleworth Road)/NH Route 9 (Franklin Pierce Highw

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Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations	۲	1	7	٢	<b>↑</b> Ъ		٦	1	1	۲	<b>↑</b>	T.
Traffic Volume (vph)	121	559	115	144	686	169	160	266	169	157	213	143
Future Volume (vph)	121	559	115	144	686	169	160	266	169	157	213	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	12	12	12	12	11	12	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97	lenne P	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1805	1881	1615	1745	3475		1805	1900	1561	1805	1818	1561
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1805	1881	1615	1745	3475	-	1805	1900	1561	1805	1818	1561
Peak-hour factor, PHF	0.95	0.95	0.95	0.80	0.80	0.80	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	127	588	121	180	858	211	180	299	190	174	237	159
RTOR Reduction (vph)	0	0	73	0	12	0	0	0	88	0	0	89
Lane Group Flow (vph)	127	588	48	180	1057	0	180	299	102	174	237	70
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	- 12 - F	a	2			-		10 B	4		112	8
Actuated Green, G (s)	13.9	28.8	28.8	17.7	32.6		17.3	24.6	24.6	16.9	24.2	24.2
Effective Green, g (s)	15.9	32.8	32.8	19.7	36.6		19.3	26.6	26.6	18.9	26.2	26.2
Actuated g/C Ratio	0.14	0.29	0.29	0.17	0.32		0.17	0.23	0.23	0.17	0.23	0.23
Clearance Time (s)	6.0	8.0	8.0	6.0	8.0		6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	251	541	464	301	1115		305	443	364	299	417	358
v/s Ratio Prot	0.07	c0.31		c0.10	c0.30		c0.10	c0.16		0.10	0.13	
v/s Ratio Perm	-9 - E	at 11 E.	0.03		1.1.1			12 12	0.07		- C.	0.05
v/c Ratio	0.51	1.09	0.10	0.60	0.95		0.59	0.67	0.28	0.58	0.57	0.20
Uniform Delay, d1	45.4	40.6	29.8	43.5	37.8		43.7	39.8	35.8	43.9	38.9	35.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	64.4	0.1	3.2	15.9		3.0	4.0	0.4	2.9	1.8	0.3
Delay (s)	47.0	105.0	29.9	46.7	53.7		46.7	43.8	36.3	46.8	40.7	35.7
Level of Service	D	F	С	D	D		D	D	D	D	D	D
Approach Delay (s)		85.3			52.7			42.5			41.1	
Approach LOS		F			D		1.01.14	D			D	
Intersection Summary	Start 1	<u> </u>						i kaž ni -		The read	- 14	
HCM 2000 Control Delay			56.8	Н	CM 2000 I	Level of S	Service		E			
HCM 2000 Volume to Capac	ity ratio		0.78									
Actuated Cycle Length (s)			114.0		um of lost				16.0		- 22	
Intersection Capacity Utilizat	ion		73.4%	IC	U Level o	f Service			Ď			
Analysis Period (min)			15									

NH Route 125 at the North Project Site Roadway

Intersection		51.0			NI 81.	42 <sup>0</sup> 1
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	4		1.			र्भ
Traffic Vol, veh/h	14	15	614	23	32	1197
Future Vol, veh/h	14	15	614	23	32	1197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None	-	None	-	None
Storage Length	0	÷.	-	-		-
Veh in Median Storage	e, # 0	-	0	-	F 1/6	0
Grade, %	0		0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	16	667	25	35	1301
Major/Minor	Minor1	1	Major1		Major2	
Conflicting Flow All	2051	680	0	0	692	0
Stage 1	680	- 000	-		- 002	-
Stage 2	1371		-	-		
Critical Hdwy	6.42	6.22		1. Y.S.	4.12	
Critical Hdwy Stg 1	5.42	0.22	-		-	-
Critical Hdwy Stg 2	5.42		-			
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	61	451	-		903	-
Stage 1	503	-			-	-
Stage 2	236	1			-	
Platoon blocked, %	200	_	-	-		-
Mov Cap-1 Maneuver	52	451	-		903	-
Mov Cap-1 Maneuver	52	-	-		- 303	
Stage 1	503			-		
Stage 2	203	-	-			-
Slage 2	203					
	- N					
Approach	WB	1.7.9.1	NB	-	SB	1.0
HCM Control Delay, s	59.8		0		0.2	
HCM LOS	F					
aiset Millingin						
Minor Lane/Major Mvm	t	NBT	NBRW	/BLn1	SBL	SBT
Capacity (veh/h)		-	-	96	903	-
HCM Lane V/C Ratio				0.328		-
HCM Control Delay (s)				59.8	9.1	0
HCM Lane LOS			-	60.0 F	A	A
HCM 95th %tile Q(veh)		-		1.3	0.1	-
NOW SOUL YOUR OUVERIN		ES.		1.0	0.1	201 102

Movement         WBL         WBR         NBT         NBR         SBL         SBT           Lane Configurations         Y         P         4         4           Traffic Vol, veh/h         29         37         1162         21         24         665           Cuture Vol, veh/h         29         37         1162         21         24         665           Conflicting Peds, #hr         0         0         0         0         0         0           Storage Length         0         -         -         -         -         -           Yeh in Median Storage, #         0         -         0         -         0         -         0           Storage Length         0         -         0         -         0         -         0           Stade, %         0         -         0         -         0         -         0           Peak Hour Factor         92         92         92         92         92         92         92           Heavy Vehicles, %         2         2         2         2         2         2         2         2         2         2         2         2         2         <	Intersection		115	0.5-1		2.5	10
Lane Configurations \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Int Delay, s/veh	4.1					
Traffic Vol, veh/h       29       37       1162       21       24       665         Future Vol, veh/h       29       37       1162       21       24       665         Conflicting Peds, #/hr       0       0       0       0       0       0         Sign Control       Stop       Stop       Free       Free       Free       Free         RT Channelized       None       None       None       None       None         Storage Length       0       -       0       -       0         Orade, %       0       -       0       -       0         Pack Hour Factor       92       92       92       92       92         Heavy Vehicles, %       2       2       2       2       2         Vehin Mimor       Minor       Major/Minor       Major/Minor       Major/Minor       Major/Minor         Vehical Hdwy       Stoge 1       1275       -       -       -       -         Conflicting Flow All       2050       1275       0       1286       0       -         Stage 1       1275       -       -       -       -       -         Collow-up Hdwy       <	Movement			NBT	NBR	SBL	SBT
Traffic Vol, veh/h       29       37       1162       21       24       665         Conflicting Peds, #/hr       0       0       0       0       0       0       0         Sign Control       Stop       Stop       Free       None       -       0       -       -       -       -       -       -       -       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       -       0       -       20       22       2	Lane Configurations	Y		ţ,			र्भ
Future Vol, veh/h       29       37       1162       21       24       665         Conflicting Peds, #/hr       0       0       0       0       0       0       0         Sign Control       Stop       Stop       Free       Free       Free       Free         Sign Control       Stop       None       -       -       -         Storage Length       0       -       0       -       0         Storage Length       0       -       0       -       0         Orade, %       0       -       0       -       0         Peak Hour Factor       92       92       92       92       92         Peak Vehicles, %       2       2       2       2       2       2         Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -       -       -         Chitical Hdwy Stg 1       5.42       -       -       -       -       -         Chitical Hdwy Stg 2       5.42       -       -       -       -       -         Collow-up Hdwy       3.5	Traffic Vol, veh/h				21	24	
Sign Control       Stop       Stop       Free       Free       Free       Free       Free       Free         RT Channelized       None       None       None       None       None       None         Storage Length       0       -       -       -       -       -       -         Veh in Median Storage, #       0       -       0       -       0       -       0         Stade, %       0       -       0       -       0       -       0         Peak Hour Factor       92       92       92       92       92       92         Heavy Vehicles, %       2       2       2       2       2       2       2         Algor/Minor       Minor1       Major1       Major2       -       -       -       -         Conflicting Flow All       2050       1275       0       1286       0       - <t< td=""><td>Future Vol, veh/h</td><td>29</td><td>37</td><td>1162</td><td>21</td><td>24</td><td>665</td></t<>	Future Vol, veh/h	29	37	1162	21	24	665
Sign Control       Stop       Stop       Free       None       Stop       Stop <td>Conflicting Peds, #/hr</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	Conflicting Peds, #/hr	0	0	0	0	0	0
RT Channelized       None       None       None       None       None         Storage Length       0       -       -       -       -         Veh in Median Storage, #       0       -       0       -       0         Pack Hour Factor       92       92       92       92       92       92         Heavy Vehicles, %       2       2       2       2       2       2         Heavy Vehicles, %       2       2       2       2       2       2         Vehin Minor       Minor1       Major/1       Major2         Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -       -       -         Stage 2       775       -       -       -       -       -       -       -         Chitical Hdwy       64.2       6.22       -       4.12       -	Sign Control		Stop	Free	Free	Free	Free
Veh in Median Storage, #       0       -       0       -       -       0         Grade, %       0       -       0       -       -       0         Peak Hour Factor       92       92       92       92       92       92         Heavy Vehicles, %       2       2       2       2       2       2       2         Vehicles, %       2       2       2       2       2       2       2         Major/Minor       Minor1       Major1       Major2       -       -       -         Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -       -       -         Chitical Hdwy       6.42       6.22       -       4.12       -       -       -         Chitical Hdwy Stg 1       5.42       -       -       -       -       -       -         Chitical Hdwy Stg 2       5.42       -       -       -       -       -       -         Stage 1       263       -       -       -       -       -       -       -         Nov Cap-1 Man	RT Channelized	-			None	-	None
Grade, %       0       -       0       -       -       0         Peak Hour Factor       92       92       92       92       92       92       92         Heavy Vehicles, %       2       2       2       2       2       2       2       2         Major/Minor       Minor1       Major1       Major1       Major2         Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -       -       -         Conflicting Flow All       2050       1275       0       0       1286       0       -         Stage 1       1275       -       -       -       -       -       -       -         Critical Hdwy       6.42       6.22       -       4.12       -	Storage Length	0	-	-	-	÷	-
Peak Hour Factor       92       92       92       92       92       92       92         Heavy Vehicles, %       2       10       2       2       2       10       2       2       2       10       2       2       2       10       2       2       2       10       2       2       2       10       2       2       2       2       2       2       2       2       <	Veh in Median Storage	e,# 0	-	0			0
Heavy Vehicles, %       2       3       3       3       3       3       3       2       2       2       2       2       2       2       1       1       2       2       1       1       2       2       1       1       2       1       1       2       1       1       2       1       2       1       2       1       1       2       1       1       2       1       1       2       1       1       1       2       1       1       2       1 <th1< th="">       2       <th1< th=""></th1<></th1<>	Grade, %	0	-	0	-		0
Major/Minor       Minor1       Major1       Major2         Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -       -         Stage 2       775       -       -       -       -       -         Critical Howy       6.42       6.22       -       4.12       -       -         Critical Howy Stg 1       5.42       -       -       -       -       -         Conflicting How All       2050       1275       -       -       -       -         Critical Howy       6.42       6.22       -       4.12       -       -       -         Critical Howy Stg 1       5.42       -       -       -       -       -       -         Collow-up Hdwy       3.518       3.318       -       2.218       -	Peak Hour Factor	92	92	92	92	92	92
Wmit Flow         32         40         1263         23         26         723           Major/Minor         Minor1         Major1         Major2           Conflicting Flow All         2050         1275         0         0         1286         0           Stage 1         1275         -         -         -         -         -           Stage 2         775         -         -         -         -         -           Critical Hdwy         6.42         6.22         -         4.12         -           Critical Hdwy Stg 1         5.42         -         -         -         -           Critical Hdwy Stg 2         5.42         -         -         -         -           Oritical Hdwy Stg 2         5.42         -         -         -         -           Chical Hdwy Stg 2         5.42         -         -         -         -           Oritical Hdwy Stg 2         5.42         -         -         -         -           Chical Hdwy Stg 2         5.42         -         -         -         -           Stage 1         263         -         -         -         -         - <t></t>	Heavy Vehicles, %	2	2	2	2	2	2
Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -         Stage 2       775       -       -       -       -         Critical Hdwy       6.42       6.22       -       4.12       -         Critical Hdwy Stg 1       5.42       -       -       -       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Mov Cap-1 Maneuver       56       204       -       539       -         Mov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -       -         Stage 2       417	Mvmt Flow	32	40	1263	23	26	723
Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -         Stage 2       775       -       -       -       -         Critical Hdwy       6.42       6.22       -       4.12       -         Critical Hdwy Stg 1       5.42       -       -       -       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Cot Cap-1 Maneuver       61       204       -       539       -         Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Mov Cap-2 Maneuver       56       204       -       539       -         Mov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -       -         Stage 2       417       <							
Conflicting Flow All       2050       1275       0       0       1286       0         Stage 1       1275       -       -       -       -         Stage 2       775       -       -       -       -         Critical Hdwy       6.42       6.22       -       4.12       -         Critical Hdwy Stg 1       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Stage 1       263       -       -       -       -         Stage 1       263       -       -       -       -       -         Mov Cap-2 Maneuver       56       -       -       -       -       -         Stage 1       263       -       -       -       -       -         Stage 2       417	Major/Minor	Minor1		Major1	-1-24	Major2	
Stage 1       1275       -	Conflicting Flow All	2050			22556		0
Stage 2       775       -				100		1.	
Critical Hdwy       6.42       6.22       -       4.12       -         Critical Hdwy Stg 1       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Pot Cap-1 Maneuver       61       204       -       539       -         Stage 2       454       -       -       -       -       -         Nov Cap-2 Maneuver       56       -       -       -       -       -       -         Stage 1       263       -       -       -       -       -       -       -       -       -       -       -       -       Stage 1       -<			-	-	- N <u>1</u> 1	- 	140
Critical Hdwy Stg 1       5.42       -       -       -         Critical Hdwy Stg 2       5.42       -       -       -         Collow-up Hdwy       3.518       3.318       -       2.218       -         Cot Cap-1 Maneuver       61       204       -       539       -         Cot Cap-1 Maneuver       61       204       -       539       -         Stage 1       263       -       -       -       -         Platoon blocked, %       -       -       -       -         Aov Cap-1 Maneuver       56       204       -       539       -         Alov Cap-2 Maneuver       56       -       -       -       -         Mov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -       -         Stage 2       417       -       -       -       -       -       -         Stage 2       417       -       -       -       -       -       -       -         ICM Control Delay, s       116.5       0       0.4       -       -       94       539       -	Critical Hdwy		6.22	- (*		4.12	
Critical Hdwy Stg 2       5.42       -       -       -         Follow-up Hdwy       3.518       3.318       -       2.218       -         Pot Cap-1 Maneuver       61       204       -       539       -         Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Platoon blocked, %       -       -       -       -         Avo Cap-1 Maneuver       56       204       -       539       -         Avo Cap-1 Maneuver       56       204       -       539       -         Avo Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -         Stage 2       417       -       -       -       -         Stage 2       417       -       -       -       -         Stage 2       417       -       -       -       -         Stage 2       50       0       0.4       -       -         ICM LOS       F       -       -       94       539       -         CM L				-			
Follow-up Hdwy       3.518       3.318       -       2.218       -         Pot Cap-1 Maneuver       61       204       -       539       -         Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Platoon blocked, %       -       -       -       -         Aov Cap-1 Maneuver       56       204       -       539       -         Aov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -         Stage 2       417       -       -       -       -         Stage 2       417       -       -       -       -         Stage 2       417       -       -       -       -         Stage 2       50       0       0.4       -       -       -         ICM Control Delay, s       116.5       0       0.4       -       -       94       539       -         CM Lane V/C Ratio       -       -       0.763       0.048       -       -       -       16.5       12       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Pot Cap-1 Maneuver       61       204       -       539       -         Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Platoon blocked, %       -       -       -       -         Mov Cap-1 Maneuver       56       204       -       539       -         Mov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -         Stage 2       417       -       -       -       -         ICM Control Delay, s       116.5       0       0.4       -       -         ICM LOS       F       -       -       94       539       -         CM Lane V/C Ratio       -       0.763       0.048       -       -         CM Lane LOS       -       -       F       B       A       -							
Stage 1       263       -       -       -       -         Stage 2       454       -       -       -       -         Platoon blocked, %       -       -       -       -         Nov Cap-1 Maneuver       56       204       -       539       -         Nov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -         Stage 2       417       -       -       -       -         Stage 3       0       0.4       -       -       -       -         ICM Control Delay, s       116.5       0       0.4       -       -       -         Gapacity (veh/h)       -       -       94       539       -       -       -         CM Lane V/C Ratio       -       -       0       -       <					-		
Stage 2       454       -       -       -         Platoon blocked, %       -       -       -         Aov Cap-1 Maneuver       56       204       -       539         Aov Cap-2 Maneuver       56       -       -       -         Stage 1       263       -       -       -         Stage 2       417       -       -       -         Stage 2       417       -       -       -         spproach       WB       NB       SB       -         ICM Control Delay, s       116.5       0       0.4         ICM LOS       F       -       -       -         finor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT         capacity (veh/h)       -       -       94       539       -         ICM Lane V/C Ratio       -       -       0.048       -       -         ICM Control Delay (s)       -       -       116.5       12       0         ICM Lane LOS       -       -       F       B       A			and the second se		-		
Platoon blocked, %       -       -       -         Mov Cap-1 Maneuver       56       204       -       539       -         Mov Cap-2 Maneuver       56       -       -       -       -         Stage 1       263       -       -       -       -         Stage 2       417       -       -       -       -         spproach       WB       NB       SB       -       -         ICM Control Delay, s       116.5       0       0.4       -       -         ICM LOS       F       -       -       -       -       -         Inor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT       -       -         Gapacity (veh/h)       -       -       94       539       -       -       -         ICM Lane V/C Ratio       -       -       0.048       -       -       -       116.5       12       0         ICM Lane LOS       -       -       F       B       A       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -				N 196			
Nov Cap-1 Maneuver         56         204         -         539         -           Mov Cap-2 Maneuver         56         -		ro r		-	2011		
Nov Cap-2 Maneuver         56         -		56	204	- ALA		539	
Stage 1         263         -          -         -							
Stage 2         417         -          -         -					-		
opproach         WB         NB         SB           ICM Control Delay, s         116.5         0         0.4           ICM LOS         F							
ICM Control Delay, s         116.5         0         0.4           ICM LOS         F	Oldgo Z	-111					
ICM Control Delay, s         116.5         0         0.4           ICM LOS         F	A	1400		1 I.I.		00	-
ICM LOS       F         Inor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT         Capacity (veh/h)       -       -       94       539       -         ICM Lane V/C Ratio       -       -       0.763       0.048       -         ICM Control Delay (s)       -       -       116.5       12       0         ICM Lane LOS       -       F       B       A	and dealers where the second se		5.51				111 g/1
Inor Lane/Major Mvmt         NBT         NBRWBLn1         SBL         SBT           Sapacity (veh/h)         -         -         94         539         -           ICM Lane V/C Ratio         -         -         0.763         0.048         -           ICM Control Delay (s)         -         -         116.5         12         0           ICM Lane LOS         -         -         F         B         A				0		0.4	e Sher
CM Lane V/C Ratio         -         -         94         539         -           ICM Lane V/C Ratio         -         -         0.763         0.048         -           ICM Control Delay (s)         -         -         116.5         12         0           ICM Lane LOS         -         -         F         B         A	HCM LOS	F		_			
CM Lane V/C Ratio         -         -         94         539         -           ICM Lane V/C Ratio         -         -         0.763         0.048         -           ICM Control Delay (s)         -         -         116.5         12         0           ICM Lane LOS         -         -         F         B         A							
ICM Lane V/C Ratio       -       -       0.763       0.048       -         ICM Control Delay (s)       -       -       116.5       12       0         ICM Lane LOS       -       -       F       B       A		nt	NBT	NBRW			SBT
CM Control Delay (s)         -         -         116.5         12         0           ICM Lane LOS         -         -         F         B         A	Capacity (veh/h)						
CM Lane LOS F B A	HCM Lane V/C Ratio						
	HCM Control Delay (s)		-	-	116.5		
CM 95th %tile Q(veh) 4 0.2 -	HCM Lane LOS		2	-	F		А
	HCM 95th %tile Q(veh)			-	4	0.2	- <u>-</u>

Intersection	104		6	19.4		9		1.4	
Int Delay, s/veh	1.1								
Movement	WBL	WBR	NBT	NBR	SBL	SBT			la h
Lane Configurations	۰Y		f₊			र्भ			
Traffic Vol, veh/h	20	21	701	21	24	775			
Future Vol, veh/h	20	21	701	21	24	775			
Conflicting Peds, #/hr	0	0	0	0	0	0			
Sign Control	Stop	Stop	Free	Free	Free	Free			
RT Channelized	-	None		None	- L	None			
Storage Length	0		-	-	-	-			
Veh in Median Storage		-	0	-	-	0			
Grade, %	0	-	0	-	-	0			
Peak Hour Factor	92	92	92	92	92	92			
Heavy Vehicles, %	2	2	2	2	2	2			
Mvmt Flow	22	23	762	23	26	842	ferini Safata at		
	Minor1		Major1		Major2				1115
Conflicting Flow All	1668	774	0	0	785	0			
Stage 1	774	11.		+	+				ALC: U
Stage 2	894	-	2	2	2	3 <b>2</b> 3			
Critical Hdwy	6.42	6.22		1	4.12		Contraction of the local sector		
Critical Hdwy Stg 1	5.42	-	3		E.	()÷			
Critical Hdwy Stg 2	5.42				1.1				
Follow-up Hdwy	3.518		-	-	2.218	879			
Pot Cap-1 Maneuver	106	398		C 10 <del>0</del>	834	( <b>*</b> )			
Stage 1	455	•			-				
Stage 2	399	AL (*		19					l Gi F
Platoon blocked, %			02	7 <b>2</b> #		-			
Mov Cap-1 Maneuver	100	398			834				
Mov Cap-2 Maneuver	100	•		۰	۲	۰.			
Stage 1	455	-		9 <b>7</b> 9		1.00			
Stage 2	375		3 <b>.</b> ?		: <b></b>				
	A. 49.				L. T				
Approach	WB	1.15	NB		SB			1-11-	
HCM Control Delay, s	35.4		0		0.3	- <u>1</u> 51		1 5.4	
HCM LOS	Е								
Minor Lane/Major Mvm	it	NBT	NBRW	/BLn1	SBL	SBT		15-2	×
Capacity (veh/h)	125			162	834				
HCM Lane V/C Ratio				0.275	0.031	-			
HCM Control Delay (s)				35.4	9.5	0			
HCM Lane LOS		( <del>0</del> 3)	340	E	А	А			
HCM 95th %tile Q(veh)		-		1.1	0.1				

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		1		the fact the	र्स
Traffic Vol, veh/h	14	15	675	23	32	1319
Future Vol, veh/h	14		675	23		1319
Conflicting Peds, #/hr	0			0		0
Sign Control	Stop		Free	Free		Free
RT Channelized		None	-			None
Storage Length	0		-	-	-	-
Veh in Median Storage			0			0
Grade, %	0		0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2		2
Mymt Flow	15	16	734	25		1434
A.R. 1. 19.41			Materia	Test states	Mat	
	Minor1		Major1		Major2	-
Conflicting Flow All	2251	747	0	0		0
Stage 1	747	-	-	-		•
Stage 2	1504	-	-	<b>ب</b>		-
Critical Hdwy	6.42	6.22	-		4.12	
Critical Hdwy Stg 1	5.42	-	-		-	-
Critical Hdwy Stg 2	5.42	1.1	-			
Follow-up Hdwy		3.318			2.218	170
Pot Cap-1 Maneuver	46	413	-		852	-
Stage 1	468	-				-
Stage 2	203	-			-	
Platoon blocked, %			3 <b>.</b>	-		-
Mov Cap-1 Maneuver	37	413	-	-	852	-
Mov Cap-2 Maneuver	37					-
Stage 1	468		-	-		-
Stage 2	162	170	3 <b>7</b> 8			-
Approach	WB		NB		SB	-
	93.1		0		0.2	-
HCM Control Delay, s HCM LOS	93.1 F		U		0.2	
	Г					
Minor Lane/Major Mvm	it 👘	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)				70	852	-
HCM Lane V/C Ratio				0.45	0.041	-
HCM Control Delay (s)		-		93.1	9.4	0
HCM Lane LOS		-		F	А	А
HCM 95th %tile Q(veh)			-	1.8	0.1	-

Intersection	5.20		J			1-5
Int Delay, s/veh	4.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	۰Y		4î			4
Traffic Vol, veh/h	29	37	1179	21	24	731
Future Vol, veh/h	29		1179	21	24	731
Conflicting Peds, #/hr	0		0			0
Sign Control	Stop		Free	Free		Free
RT Channelized		None	1 . · ·	None	-	None
Storage Length	0	Ж	<u>~</u>	¥	-	-
Veh in Median Storage	e,# 0	-	0			0
Grade, %	0	11	0	÷		0
Peak Hour Factor	92	92	92	92		92
Heavy Vehicles, %	2		2	2		2
Mvmt Flow	32	40	1282	23	26	795
Major/Minor	Minor1	-0.151	Major1	1	Major2	NY II
Conflicting Flow All	2141	1294	0	0		0
Stage 1	1294	- 19			-	-
Stage 2	847		2			12
Critical Hdwy	6.42	6.22		1	4.12	2
Critical Hdwy Stg 1	5.42	-			-	-
Critical Hdwy Stg 2	5.42	-	1.00	-	-	
Follow-up Hdwy	3.518	3.318	<del></del>		2.218	\ <b>#</b> ;
Pot Cap-1 Maneuver	54	199		-	530	-
Stage 1	257	-	5 <b>4</b> 0			245
Stage 2	420	-				
Platoon blocked, %			( <del>-</del>			-
Mov Cap-1 Maneuver	49	199	-		530	
Mov Cap-2 Maneuver	49					
Stage 1	257	1/94				
Stage 2	383		٠			
						2 I.
Approach	WB		NB		SB	
HCM Control Delay, s		-	0		0.4	
HCM LOS	F		0		0.4	
Minor Long/Major Mars		NDT	NDDV		CDI	CDT
Minor Lane/Major Mvm	<u>t</u>	NBT	NBRV		SBL	SBT
Capacity (veh/h)		-	-	85	530	-
HCM Lane V/C Ratio		3 <b>9</b> 6		0.844		-
HCM Control Delay (s)			•	143.8	12.1	0
HCM Lane LOS		-	-	F	B	A
HCM 95th %tile Q(veh)	14-00	9 E	10 7 3	4.4	0.2	1.120

Intersection				9. Tł	-	
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥4		Þ			÷Î
Traffic Vol, veh/h	20		767	21	24	854
Future Vol, veh/h	20		767	21	24	854
Conflicting Peds, #/hr	0		0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	1 1 1 <b>1</b>	Contract of the local division of the local		None	-	None
Storage Length	0	-				5 <b>4</b> 3
Veh in Median Storage	e, # 0	-	0			0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	23	834	23	26	928
Major/Minor	Minor1	1	Major1		Major2	
Conflicting Flow All	1826	846	0	0	857	0
Stage 1	846	- 040	-	0	007	-
Stage 2	980	-				-
Critical Hdwy	6.42	6.22			4.12	
Critical Hdwy Stg 1	5.42	0.22		-	4.12	-
Critical Hdwy Stg 2	5.42			170	-	57.1
Follow-up Hdwy		3.318	-	-	2.218	
Pot Cap-1 Maneuver	85	362		-	783	-
Stage 1	421	- 502	-	-	- 100	-
Stage 2	364		-	-		-
Platoon blocked, %	004	MI 2074	-	-		
Mov Cap-1 Maneuver	79	362			783	
Mov Cap-2 Maneuver	79		-	-		-
Stage 1	421		-			
Stage 2	339	-		-	2	
Oldye 2	000		-	-	-	
Approach	WB		NB		SB	
HCM Control Delay, s	45.6		0		0.3	
HCM LOS	E					
Minor Lane/Major Mvn	nt -	NBT	NBRV	VBI n1	SBL	SBT
Capacity (veh/h)		-	-	132	783	-
HCM Lane V/C Ratio				0.338		-
HCM Control Delay (s)		-		45.6	9.8	0
HCM Lane LOS				E	A	Ă
HCM 95th %tile Q(veh)		÷.		1.4	0.1	-
ISIN OUT MUS GIVEN				117	0.1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

NH Route 125 at the South Project Site Roadway

Intersection					1	
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ţ,			र्स
Traffic Vol, veh/h	25	18	619	28	32	1179
Future Vol, veh/h	25	18	619	28	32	1179
Conflicting Peds, #/hr			0	0		0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized		None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storag			0		12.5	0
Grade, %	0	-	0			0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2		2
Mvmt Flow	27	20	673	30	35	1282
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2040	688	0	0	703	0
Stage 1	688	-		11 - <b>X</b>	•	1.1
Stage 2	1352	-	-	-		-
Critical Hdwy	6.42	6.22	1	- 11 <b>-</b>	4.12	1. 11-
Critical Hdwy Stg 1	5.42	-				-
Critical Hdwy Stg 2	5.42	-	1.1.5	-		-
Follow-up Hdwy	3.518		3.5.			
Pot Cap-1 Maneuver	62	446	- Ter	-	895	-
Stage 1	499	-	300	:: <del>::</del> :	(( <del>))</del> ;	-
Stage 2	241	-	1			-
Platoon blocked, %			3 <b>6</b> 3	656		-
Mov Cap-1 Maneuver	54	446			895	
Mov Cap-2 Maneuver	54	-		-	-	-
Stage 1	499	-				
Stage 2	208			-		
olago 1						
Approach	WB		NB		SB	-
			0		0.2	
HCM Control Delay, s HCM LOS	90.1 F		U		0.2	
	F				0.00	
Minor Lane/Major Mvm	nt	NBT	NBRW	/BLn1	SBL	SBT
Capacity (veh/h)	č.	1.1		85	895	-
HCM Lane V/C Ratio		:				-
HCM Control Delay (s)						0
		(#))			А	
		-	-			1.1
Capacity (veh/h)				85		- - 0 A

th Delay, s/veh       6.7         towement       WBL       WBR       NBR       SBL       SBT         ane Configurations       W       h       h       4         ane Configurations       W       h       h       4         araffic Vol, veh/h       38       40       1143       35       27       667         onflicting Peds, #/hr       0       0       0       0       0       0       0         ign Control       Stop       Stop       Free       Free       Free       Free       Free         T Channefized       None       None       None       None       None       on         orage Length       0       -       0       -       -       on         rade, %       0       -       0       -       -       on         eak Hour Factor       92       92       92       92       92       92       eay         wht Flow       41       43       1242       38       29       725         vmt Flow       41       43       1242       38       29       725         onflicting Flow All       204       1261       0       128	Internation				1.12	-	
Vert         VBL         WBR         NBT         NBR         SBL         SBT           are Configurations         Y         1         35         27         667           raffic Vol, veh/h         38         40         1143         35         27         667           uture Vol, veh/h         38         40         1143         35         27         667           onflicting Peds, #/hr         0         0         0         0         0         0         0           ign Control         Stop         Stop         Free         Free         Free         Tree           T Channelized         -         None         -         0         -         0           eh in Median Storage, #         0         -         0         -         0         -           rade, %         0         -         0         -         0         -         0           eak Hour Factor         92         92         92         92         92         92         92           eary Vehicles, %         2         2         2         2         2         2         2         2         2         2         2         2         2	Intersection	~ 7			1		
ane Configurations       Y       I       I       I         raffic Vol, veh/h       38       40       1143       35       27       667         uture Vol, veh/h       38       40       1143       35       27       667         omfleting Peds, #/hr       0       0       0       0       0       0         ign Control       Stop       Stop       Free       Free       Free       Free         T Channelized       -       -       -       -       -       -         torage Length       0       -       0       -       0       -         rade, %       0       -       0       -       0       -         rade, %       0       -       0       -       0       -         eavy Vehicles, %       2       2       2       2       2       2       2       2         onflicting Flow All       2044       1261       0       1280       0       -<	int Delay, s/veh	6.7					
ane Configurations       Y       Isolation       Isolation         raffic Vol, veh/h       38       40       1143       35       27       667         uture Vol, veh/h       38       40       1143       35       27       667         omflicting Peds, #/hr       0       0       0       0       0       0         ign Control       Stop       Stop       Free       Free       Free       Free         T Channelized       -       -       -       -       -       -         torage Length       0       -       0       -       0       -         rade, %       0       -       0       -       0       -         rade, %       0       -       0       -       0       -         eavy Vehicles, %       2       2       2       2       2       2       2       2         onflicting Flow All       2044       1261       0       0       1280       0       -         Stage 1       1261       -       -       -       -       -       -         officting Flow All       2044       6.22       -       -       -	Movement	WBL	WBR	NBT	NBR	SBL	SBT
raffic Vol, veh/h 38 40 1143 35 27 667 onflicting Peds, #/hr 0 0 0 0 0 0 0 git Control Stop Stop Free Free Free Free T Channelized - None - None - None torage Length 0							
uture Vol, veh/h 38 40 1143 35 27 667 onflicting Peds, #hr 0 0 0 0 0 0 0 0 ign Control Stop Stop Free Free Free Free Free T Channelized - None - None - None brage Length 0 0 rade, % 0 - 0 0 eak Hour Factor 92 92 92 92 92 92 eavy Vehicles, % 2 2 2 2 2 2 vmt Flow 41 43 1242 38 29 725 ajor/Minor Minor1 Major1 Major2 onflicting Flow All 2044 1261 0 0 1280 0 Stage 1 1261 Stage 2 783 ritical Hdwy Stg 2 5.42 Stage 1 267 Stage 1 267 Stage 2 450 Stage 2 450 Stage 2 450 Stage 2 410 Stage 3 542 - Stage 4 55 Stage 4 55 Stage 4 55 Stape 4 55 Stape 55 Stape 55 Stape 55 Stape 55 Sta					35	27	
onflicting Peds, #hr       0       0       0       0       0       0         ign Control       Stop       Stop       Free       Free       Free       Free         1 Channelized       -       None       -       None       -       None         torage Length       0       -       0       -       -       -         ein Median Storage, #       0       -       0       -       -       0         rade, %       0       -       0       -       -       0         eak Hour Factor       92       92       92       92       92       92         eavy Vehicles, %       2       2       2       2       2       2       2         onflicting Flow All       2044       1261       0       0       1280       0       3tage 1       1261       - </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
ign Control Stop Stop Free Free Free Free T Channelized - None - None - None torage Length 0							
T Channelized       None       None       None       None         torage Length       0       -       -       -       -         eh in Median Storage, #       0       -       0       -       -         eh in Median Storage, #       0       -       0       -       -       0         rade, %       0       -       0       -       -       0         eak Hour Factor       92       92       92       92       92       92         eak Hour Factor       92       92       92       92       92       92         eak Hour Factor       92       92       92       92       92       92         eak Hour Factor       92       92       92       92       92       92         eak Hour Factor       92       92       92       92       92       92         eak Hour Factor       92       2       2       2       2       2       2         onflicting Flow All       2044       1261       0       0       1280       0       0         Stage 1       1261       6.22       -       4.12       -       -       -       - <td>Sign Control</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Sign Control						
torage Length 0	RT Channelized						
eh in Median Storage, # 0 - 0 0 rade, % 0 - 0 0 eak Hour Factor 92 92 92 92 92 92 eavy Vehicles, % 2 2 2 2 2 2 2 twm Flow 41 43 1242 38 29 725 ajor/Minor Minor1 Major1 Major2 onflicting Flow All 2044 1261 0 0 1280 0 Stage 1 1261 Stage 2 783 ritical Hdwy 6.42 6.22 - 4.12 - ritical Hdwy Stg 1 5.42 ritical Hdwy Stg 2 5.42 Stage 1 267 Stage 2 450 Stage 2 410 Stage							
rade, %       0       -       0       -       -       0         eak Hour Factor       92 </td <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td>				0			
eak Hour Factor         92         92         92         92         92         92           eavy Vehicles, %         2         3	Grade, %						
eavy Vehicles, %       2       1       1       2       2       1       1       1       2       2       1       1       2       2       1       1       2       2       1       1       1       2       1       1       1       1       2       1       1       1       2 <th1< th="">       1       <th1< th=""></th1<></th1<>	Peak Hour Factor						
Numt Flow         41         43         1242         38         29         725           lajor/Minor         Minor1         Major1         Major2           onflicting Flow All         2044         1261         0         0         1280         0           Stage 1         1261         -         -         -         -         -           ritical Hdwy         6.42         6.22         -         4.12         -           ritical Hdwy         6.42         6.22         -         4.12         -           ritical Hdwy Stg 1         5.42         -         -         -         -           ot Cap-1 Maneuver         62         208         -         542         -           Stage 1         267         -         -         -         -           Stage 2         450         -         -         -         -           ov Cap-1 Maneuver         56         208         -         542         -           ot Cap-1 Maneuver         56         208         -         542         -           ov Cap-2 Maneuver         56         208         -         542         -           ov Cap-2 Maneuver         56							
ajor/Minor         Minor1         Major1         Major2           onflicting Flow All         2044         1261         0         0         1280         0           Stage 1         1261         -         -         -         -         -           Stage 2         783         -         -         -         -         -           ritical Hdwy         6.42         6.22         -         4.12         -         -           ritical Hdwy Stg 1         5.42         -         -         -         -         -           ritical Hdwy Stg 2         5.42         -         -         -         -         -           ritical Hdwy Stg 2         5.42         -         -         -         -         -           ott Cap-1 Maneuver         62         208         -         542         -         -           Stage 1         267         -         -         -         -         -         -           ov Cap-1 Maneuver         56         -         -         -         -         -         -           ov Cap-1 Maneuver         56         -         -         -         -         -         -         -	Mymt Flow						
onflicting Flow All       2044       1261       0       0       1280       0         Stage 1       1261       -       -       -       -         Stage 2       783       -       -       -       -         ritical Hdwy       6.42       6.22       -       4.12       -         ritical Hdwy Stg 1       5.42       -       -       -       -         ritical Hdwy Stg 2       5.42       -       -       -       -         ritical Hdwy Stg 2       5.42       -       -       -       -         ott Cap-1 Maneuver       62       208       -       542       -         Stage 1       267       -       -       -       -         Stage 2       450       -       -       -       -         stage 1       267       -       -       -       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         Stage 2       410       -       -       -       -							
onflicting Flow All       2044       1261       0       0       1280       0         Stage 1       1261       -       -       -       -         Stage 2       783       -       -       -       -         ritical Hdwy       6.42       6.22       -       4.12       -         ritical Hdwy Stg 1       5.42       -       -       -       -         ritical Hdwy Stg 2       5.42       -       -       -       -         ritical Hdwy Stg 2       5.42       -       -       -       -         ott Cap-1 Maneuver       62       208       -       542       -         Stage 1       267       -       -       -       -         Stage 2       450       -       -       -       -         stage 1       267       -       -       -       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         Stage 2       410       -       -       -       -	11-1 N.P.			N ROADING	_		
Stage 1       1261       -							
Stage 2       783       -					0		
ritical Howy 6.42 6.22 - 41.12 - ritical Howy Stg 1 5.42 ritical Howy Stg 2 5.42 Stage 1 267 - 542 - Stage 1 267 Stage 2 450 atoon blocked, % ov Cap-1 Maneuver 56 208 - 542 - ov Cap-2 Maneuver 56 Stage 1 267 Stage 1 267 Stage 2 410 Stage 2 410				10 million (1997)	-		1.1
ritical Hdwy Stg 1 5.42				Ð	-		20). 20)
ritical Hdwy St 2 5.42	Critical Hdwy			10		4.12	
Jollow-up Hdwy       3.518       3.318       -       2.218       -         bot Cap-1 Maneuver       62       208       -       542       -         Stage 1       267       -       -       -       -         stage 2       450       -       -       -       -         atoon blocked, %       -       -       -       -       -         ov Cap-1 Maneuver       56       208       -       542       -         ov Cap-1 Maneuver       56       -       -       -       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -       -         Stage 2       410       -       -       -       -       -         oproach       WB       NB       SB       -       -       -       -         optroach       WB       NBT       NBRWBLN1       SBL       SBT       -       -       -         optroach       WB       NBT       NBRWBLN1       SBL       SBT       -       -       -       -       -       -       -       -       -				376	-	-	3 <b>9</b> .5
ot Cap-1 Maneuver       62       208       -       542       -         Stage 1       267       -       -       -       -         Stage 2       450       -       -       -       -         atoon blocked, %       -       -       -       -       -         ov Cap-1 Maneuver       56       208       -       542       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         Stage 3       0       0.5       -       -       -         CM Loos       F       -       90       542       -         CM Lane V/C Ratio       - <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>					-		
Stage 1       267       -       -       -         Stage 2       450       -       -       -         atoon blocked, %       -       -       -       -         ov Cap-1 Maneuver       56       208       -       542       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         Stage 3       0       0.5       -       -       -         CM Control Delay, s       162.8       0       0.5       -         Inor Lane //Major Mvmt       NBT       NBK MBLn1       SBL       SB	Follow-up Hdwy			9 <b>4</b> 0)			-
Stage 2       450       -       -       -         atoon blocked, %       -       -       -       -         ov Cap-1 Maneuver       56       208       -       -       542       -         ov Cap-2 Maneuver       56       -       -       -       -       -         ov Cap-2 Maneuver       56       -       -       -       -       -         Stage 1       267       -       -       -       -       -         Stage 2       410       -       -       -       -       -         Oproach       WB       NB       SB       -       -       -       -         CM Control Delay, s       162.8       0       0.05       -       -       -       -         inor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT       -       -       -         apacity (veh/h)       -       -	Pot Cap-1 Maneuver		208	-	-	542	-
atoon blocked, %       -       -       -         ov Cap-1 Maneuver       56       208       -       542       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         oproach       WB       NB       SB       -       -         CM Control Delay, s       162.8       0       0.5       -         CM LOS       F       -       -       -         inor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT         apacity (veh/h)       -       -       90       542       -         CM Lane V/C Ratio       -       -       0.942       0.054       -         CM Control Delay (s)       -       -       162.8       12       0         CM Lane LOS       -       -       F       B       A			-	120	-	-	-
ov Cap-1 Maneuver       56       208       -       542       -         ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         oproach       WB       NB       SB       -       -         cm control Delay, s       162.8       0       0.5       -         cmor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT         apacity (veh/h)       -       -       90       542       -         CM Lane V/C Ratio       -       -       0.054       -       -         CM Control Delay (s)       -       -       162.8       12       0         CM Lane LOS       -       -       F       B       A		450	-		1.2 1	2	
ov Cap-2 Maneuver       56       -       -       -       -         Stage 1       267       -       -       -       -         Stage 2       410       -       -       -       -         oproach       WB       NB       SB       -       -         CM Control Delay, s       162.8       0       0.5       -         CM LOS       F       -       -       -         apacity (veh/h)       -       -       90       542       -         CM Lane V/C Ratio       -       -       0.054       -       -         CM Control Delay (s)       -       -       162.8       12       0         CM Lane LOS       -       -       F       B       A	Platoon blocked, %			( <del>1</del> )			3
Stage 1       267       -	Mov Cap-1 Maneuver		208			542	-
Stage 2       410       -       -       -         oproach       WB       NB       SB         CM Control Delay, s       162.8       0       0.5         CM LOS       F       -       -       90       542       -         inor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT         apacity (veh/h)       -       -       90       542       -         CM Lane V/C Ratio       -       -       0.942       0.054       -         CM Control Delay (s)       -       -       162.8       12       0         CM Lane LOS       -       -       F       B       A	Mov Cap-2 Maneuver				÷	a.	-
Opproach     WB     NB     SB       CM Control Delay, s     162.8     0     0.5       CM LOS     F       inor Lane/Major Mvmt     NBT     NBRWBLn1     SBL       spacity (veh/h)     -     -     90       542     -       CM Lane V/C Ratio     -     -     0.942       CM Control Delay (s)     -     -     162.8     12       CM Lane LOS     -     -     F     B			-	-			-
CM Control Delay, s         162.8         0         0.5           CM LOS         F         - <td< td=""><td>Stage 2</td><td>410</td><td>54</td><td>÷</td><td>9</td><td>÷</td><td>-</td></td<>	Stage 2	410	54	÷	9	÷	-
CM Control Delay, s         162.8         0         0.5           CM LOS         F         - <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
CM Control Delay, s         162.8         0         0.5           CM LOS         F         - <td< td=""><td>Approach</td><td>WB</td><td>1.1.1.1</td><td>NB</td><td></td><td>SB</td><td>125.10</td></td<>	Approach	WB	1.1.1.1	NB		SB	125.10
CM LOS       F         inor Lane/Major Mvmt       NBT       NBRWBLn1       SBL       SBT         apacity (veh/h)       -       -       90       542       -         CM Lane V/C Ratio       -       -       0.942       0.054       -         CM Control Delay (s)       -       -       162.8       12       0         CM Lane LOS       -       -       F       B       A	and the second se	and the second second					
inor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT apacity (veh/h) 90 542 - CM Lane V/C Ratio - 0.942 0.054 - CM Control Delay (s) - 162.8 12 0 CM Lane LOS - F B A	HCM LOS			v		0.0	
apacity (veh/h)         -         -         90         542         -           CM Lane V/C Ratio         -         -         0.942         0.054         -           CM Control Delay (s)         -         -         162.8         12         0           CM Lane LOS         -         -         F         B         A							
apacity (veh/h)         -         -         90         542         -           CM Lane V/C Ratio         -         -         0.942         0.054         -           CM Control Delay (s)         -         -         162.8         12         0           CM Lane LOS         -         -         F         B         A			12120200				
CM Lane V/C Ratio       -       -       0.942       0.054       -         CM Control Delay (s)       -       -       162.8       12       0         CM Lane LOS       -       -       F       B       A		nt	NBT	NBRV			
CM Control Delay (s)         -         -         162.8         12         0           CM Lane LOS         -         -         F         B         A	Capacity (veh/h)			1.00			-
CM Lane LOS F B A	HCM Lane V/C Ratio		×				
	HCM Control Delay (s)	÷	-	-			
CM 95th %tile Q(veh) 5.3 0.2 -	HCM Lane LOS		-	-			A
	HCM 95th %tile Q(veh)	)	÷	-	5.3	0.2	

Intersection	<u>, 1</u> , 15	100	323		143	
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		Þ			<del>ب</del> ا
Traffic Vol, veh/h	31	25	697	34	26	769
Future Vol, veh/h	31	25	697	34	26	769
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	1123		-	None		None
Storage Length	0	-		-	-	-
Veh in Median Storage	e, # 0	- 10	0		- 11	0
Grade, %	. 0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2		2
Mvmt Flow	34	27	758	37	28	836
MaiorAlinan	Minord		Intend	-		_
	Minor1		Major1		Major2	0
Conflicting Flow All	1669	777	0	0		0
Stage 1	777	-	-	-		0,50-3
Stage 2	892	-	-	-	-	9 <b>4</b> 7
Critical Hdwy	6.42	6.22	-	-	4.12	
Critical Hdwy Stg 1	5.42	-	1	-	-	
Critical Hdwy Stg 2	5.42	-			2 50	
Follow-up Hdwy	3.518			-	2.218	
Pot Cap-1 Maneuver	106	397	- 2 <b>9</b>		826	
Stage 1	453	-	5 <del>96</del>			
Stage 2	400				-	
Platoon blocked, %			245	- initial 1997		2
Mov Cap-1 Maneuver	99	397	-	-	826	-
Mov Cap-2 Maneuver	99	-				
Stage 1	453		-	-	-	
Stage 2	375	-				
Approach			ND	-	CD	and the state
Approach	WB		NB	2000	SB	
HCM Control Delay, s	44.9	200	0		0.3	
HCM LOS	E	_				
			1.11		14.5	
Minor Lane/Major Mvm	ti i s	NBT	NBRW	/BLn1	SBL	SBT
Capacity (veh/h)		1		149	826	1404
HCM Lane V/C Ratio		-		0.409		-
HCM Control Delay (s)				44.9	9.5	0
HCM Lane LOS			-	E	A	A
ICM 95th %tile Q(veh)			-	1.8	0.1	-
ioni oour mue a(ven)				1.0	0.1	

Intersection	212				1.15	ing m
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WEL		ĥ		and that the	Â
Traffic Vol, veh/h	25	18	680	28	32	1301
Future Vol, veh/h	25	18	680	28	32	1301
Conflicting Peds, #/hr		0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-		-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storag			0	11.1	-	0
Grade, %	0	-	0		-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	27	20	739	30	35	1414
		20	100	00	00	1717
Major/Minor	Minor1		Major1		Major2	- 410
Conflicting Flow All	2238	754	0	0	769	0
Stage 1	754			-	(m)	-
Stage 2	1484	-	1	-		-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	÷	-		-
Critical Hdwy Stg 2	5.42	-		-	-	
Follow-up Hdwy	3.518	3.318	۲	-	2.218	
Pot Cap-1 Maneuver	47	409		-	845	-
Stage 1	465	-		-	-	:#3
Stage 2	208	-			1.15	
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	38	409			845	
Mov Cap-2 Maneuver		-			171	-
Stage 1	465	-	-	-	-	
Stage 2	168	-				-
olugo L						
Approach	WB	4 - 6	NB		SB	
HCM Control Delay, s			0		0.2	p i
HCM LOS	103.5 F	1.00	U	2 1	0.2	V 78017
HUMLUS	F					
Minor Lane/Major Mvn	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		100	-	61	845	•
HCM Lane V/C Ratio		-		0.766	0.041	-
HCM Control Delay (s	16,82	-	-	163.5	9.4	0
HCM Lane LOS			-	F	А	A
HCM 95th %tile Q(veh	)	-	1.4	3.4	0.1	-
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Intersection		7 197			UT ES	
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		ţ.		300	र्भ
Traffic Vol, veh/h	38	40	1160	35	27	733
Future Vol, veh/h	38	40	1160	35	27	733
Conflicting Peds, #/hr		40	0	0	0	
Sign Control		Stop	Free	Free	Free	Free
RT Channelized	Stop	None	-			None
and the second sec	0	1		None -		None
Storage Length			-			-
Veh in Median Storag			0		-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	43	1261	38	29	797
Major/Minor	Minor1		Major1	11.4	Major2	
Conflicting Flow All	2135	1280	0	0	1299	0
Stage 1	1280		-			1.1
Stage 2	855	-	-	541	323	-
Critical Hdwy	6.42	6.22			4.12	
Critical Hdwy Stg 1	5.42	-	1		-	-
Critical Hdwy Stg 2	5.42		-	1985		
Follow-up Hdwy	3.518		1771 (1771		2.218	
Pot Cap-1 Maneuver	54	202		1200	533	
	261	202		_		
Stage 1						
Stage 2	417	-		-	-	
Platoon blocked, %	40	000	-	-	500	*
Mov Cap-1 Maneuver		202	11 10	( <b>e</b> )	533	٠
Mov Cap-2 Maneuver	49					
Stage 1	261		-		•	-
Stage 2	376	•	-			-
	en de la compañía de				1	
Approach	WB	IA EUT I	NB	2 H.	SB	5 R . 1
HCM Control Delay, s	210.6	-	0		0.4	C. M. C.
HCM LOS	F				0.1	
Minor Lane/Major Mvn	nt	NBT	NBRW		SBL	SBT
Capacity (veh/h)				80	533	
HCM Lane V/C Ratio			-	1.06	0.055	-
JCM Control Doloy (a)				210 6	101	0

HCM Control Delay (s)

HCM Lane LOS HCM 95th %tile Q(veh)

	_	_			_	-
Intersection		1.11	1.3			
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		4			स
Traffic Vol, veh/h	31	25	767	34	26	848
Future Vol, veh/h	31	25	767	34	26	848
Conflicting Peds, #/hr	0		0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized			-	None		None
Storage Length	0	-	-	-		-
Veh in Median Storage	e, # 0		0	-	1.20	0
Grade, %	. 0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2		2	2	2	2
Mymt Flow	34	27	834	37	28	922
Service Special						
A Robert M. Provide	Alterade		Verseert		Main O	1
	Minor1		Major1		Major2	-
Conflicting Flow All	1831	853	0	0	871	0
Stage 1	853	11	1.10		25	
Stage 2	978	-	-	-	-	-
Critical Hdwy	6.42	6.22		-	4.12	-
Critical Hdwy Stg 1	5.42	-			ו)	-
Critical Hdwy Stg 2	5.42	-	-	•	-	
Follow-up Hdwy		3.318	-	-	2.218	-
Pot Cap-1 Maneuver	84	359	1.1.4	-	774	-
Stage 1	418	-	-		×	- 18 A
Stage 2	364	-				۲
Platoon blocked, %			1.	-		
Mov Cap-1 Maneuver	78	359			774	
Mov Cap-2 Maneuver	78	-	-			9 <b>0</b> 2
Stage 1	418	-			-	-
Stage 2	337	-	-			:#S
Approach	WB		NB		SB	0.055
Approach						-
HCM Control Delay, s	62.5		0		0.3	
HCM LOS	F					
Minor Lane/Major Mvm	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)	6 A	-	-	120	774	-
HCM Lane V/C Ratio		3 <b>4</b> 0.	-	0.507		-
HCM Control Delay (s)				62.5	9.8	0
HCM Lane LOS		-	-	F	А	А
HCM 95th %tile Q(veh)	)		1	2.3	0.1	-
				1.0		

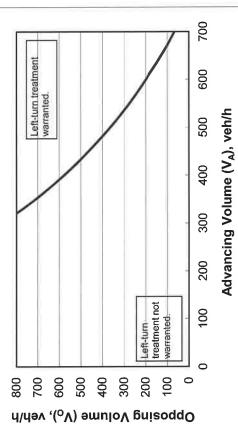
TURN LANE WARRANTS ANALYSIS

85 <sup>th</sup> percentile speed, mph: 60 Percent of left-turns in advancing volume (V <sub>A</sub> ), %: 3% Advancing volume (V <sub>A</sub> ), veh/h: 1229 Opposing volume (V <sub>o</sub> ), veh/h: 614	Variable	Value
ng volume (V <sub>A</sub> ), %:	5 <sup>th</sup> percentile speed, mph:	60
	ercent of left-turns in advancing volume ( $V_A$ ), %:	3%
	dvancing volume (V <sub>A</sub> ), veh/h:	1229
	)pposing volume (V <sub>o</sub> ), veh/h:	614

OUTPUT	
Variable	Value
Limiting advancing volume (V <sub>A</sub> ), veh/h:	386
Guidance for determining the need for a major-road left-turn bay:	y:
Left-turn treatment warranted.	
	100



Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



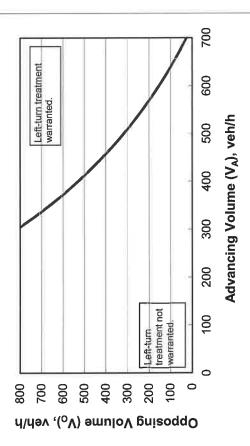
H		-	
ŝ	5	)	
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-			

Variable	Value
85 <sup>th</sup> percentile speed, mph:	60
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
Advancing volume (V <sub>A</sub> ), veh/h:	689
Opposing volume (V <sub>o</sub> ), veh/h:	1162

OUTPUT	
Variable	Value
Limiting advancing volume (V <sub>A</sub> ), veh/h:	215
Guidance for determining the need for a major-road left-turn bay:	ż
Left-turn treatment warranted.	



Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

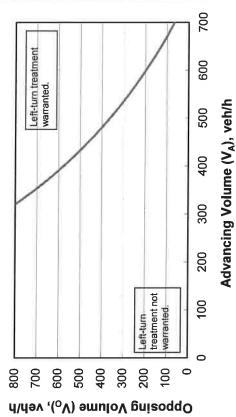


85 <sup>th</sup> percentile speed, mph: 60 Percent of left-turns in advancing volume (V <sub>A</sub> ), %: 3% Advancing volume (V <sub>A</sub> ), veh/h: 799 Opposing volume (V <sub>0</sub> ), veh/h: 701	Variable	Value
advancing volume (V <sub>A</sub> ), %: , veh/h: , veh/h:		60
, veh/h: , veh/h:	Percent of left-turns in advancing volume (	
, veh/h;	Advancing volume (V <sub>A</sub> ), veh/h:	662
	Opposing volume (V <sub>0</sub> ), veh/h:	701

	Value
-imiting advancing volume (V <sub>A</sub> ), veh/h:	386
Guidance for determining the need for a major-road left-furn hau-	

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	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



2-lane roadway (English) INPUT

Variable	_
85 <sup>th</sup> percentile speed, mph:	
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	
Advancing volume (V <sub>A</sub> ), veh/h:	-
Opposing volume (V <sub>0</sub> ), veh/h:	

Value 60 2% 1351

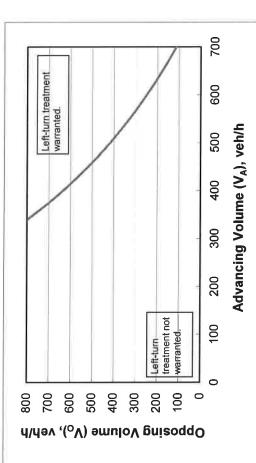
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	Variable

Variable	Value
Limiting advancing volume (V <sub>A</sub> ), veh/h:	384
Guidance for determining the need for a major-road left-turn bay.	ay:
Left-turn treatment warranted.	

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



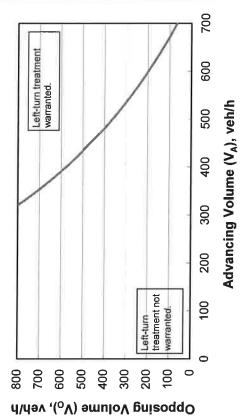
Variable	Value
85 <sup>th</sup> percentile speed, mph:	09
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
Advancing volume (V <sub>A</sub> ), veh/h:	755
Opposing volume (V <sub>o</sub> ), veh/h:	1179

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Limiting advancing volume (V <sub>A</sub> ), veh/h: 386 Guidance for determining the need for a major-road left-turn bay:	Variable	Value
Guidance for determining the need for a major-road left-turn bay:	Limiting advancing volume (V <sub>A</sub> ), veh/h:	386
	Guidance for determining the need for a major-road left-turn bi	bay:



Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

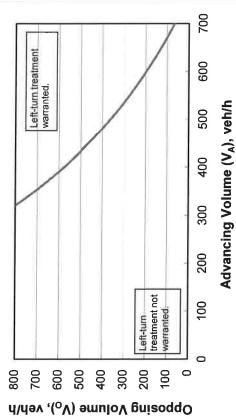


Variable	Value
percentile speed, mph:	60
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
Advancing volume (V <sub>A</sub> ), veh/h:	878
)pposing volume (V <sub>o</sub> ), veh/h:	177

OUTPUT	
Variable Va	/alue
ting advancing volume (V <sub>A</sub> ), veh/h: 3	386
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

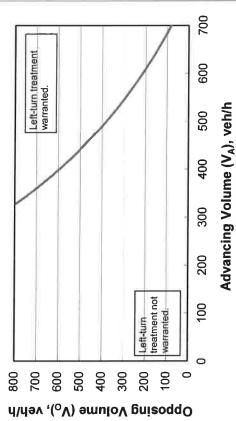


85 <sup>th</sup> percentile speed, mph: 60 60 Fercent of left-turns in advancing volume (V <sub>A</sub> ), %: 3% 66 Advancing volume (V <sub>A</sub> ), veh/h: 1211 3% 66 Advancing volume (V <sub>O</sub> ), veh/h: 619 50	Variable	Value
ng volume (V <sub>A</sub> ), %: 3% 1211 619	85 <sup>th</sup> percentile speed, mph:	60
1211 619	Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
619	Advancing volume (V <sub>A</sub> ), veh/h:	1211
	Opposing volume (V <sub>o</sub> ), veh/h:	619

Variable       Value         Limiting advancing volume (V <sub>A</sub> ), veh/h;       391         Guidance for determining the need for a major-road left-turn bay:       Left-turn treatment warranted.		
	Variable	Value
Guidance for determining the need for a major-road left-turn bay: Left-turn treatment warranted.	Limiting advancing volume (V <sub>A</sub> ), veh/h:	391
Left-turn treatment warranted.	Guidance for determining the need for a major-road left-turn b	ay:
	Left-turn treatment warranted.	

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Average time for making lett-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

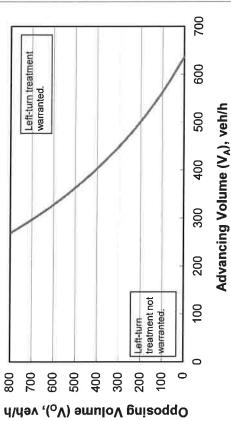


Variable	Value
85 <sup>th</sup> percentile speed, mph:	60
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	4%
Advancing volume (V <sub>A</sub> ), veh/h:	694
Opposing volume (V <sub>0</sub> ), veh/h:	1143

Variable       Value         Limiting advancing volume (VA), veh/h:       193         Guidance for determining the need for a major-road left-turn bay:       163         Left-turn treatment warranted.       193	OUTPUT	
	Variable	Value
Guidance for determining the need for a major-road left-turn bay: Left-turn treatment warranted.	Limiting advancing volume (V <sub>A</sub> ), veh/h:	193
Left-turn treatment warranted.	Guidance for determining the need for a major-road left-turi	hay:
	Left-turn treatment warranted.	

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



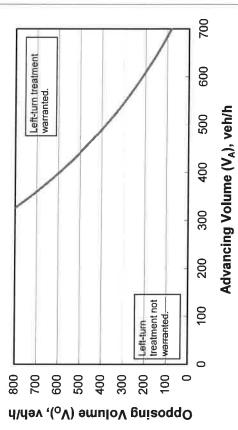
Variable	Value
85 <sup>th</sup> percentile speed, mph:	09
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
Advancing volume (V <sub>A</sub> ), veh/h:	795
Opposing volume (V <sub>0</sub> ), veh/h:	697

Variable	Value
-imiting advancing volume (V <sub>A</sub> ), veh/h:	391
Guidance for determining the need for a major-road left-turn bay:	bav:

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



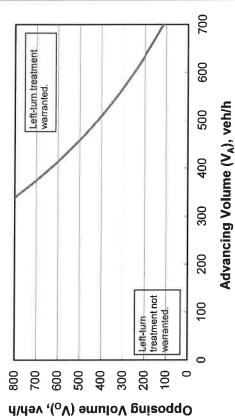


Variable	Value	_
85 <sup>th</sup> percentile speed, mph:	60	ч/ч
Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	2%	lə\
Advancing volume (V <sub>A</sub> ), veh/h:	1333	\ '('
Opposing volume (V <sub>0</sub> ), veh/h:	680	×Λ.
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Variable     Value       Limiting advancing volume (V <sub>A</sub> ), veh/h:     383       Guidance for determining the need for a major-road left-turn bay:	OUTPUT	
	Variable	Value
Guidance for determining the need for a major-road left-turn bay:	Limiting advancing volume (V <sub>A</sub> ), veh/h:	383
	Guidance for determining the need for a major-road left-turn bay	'y:
Left-turn treatment warranted.	Left-turn treatment warranted.	

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

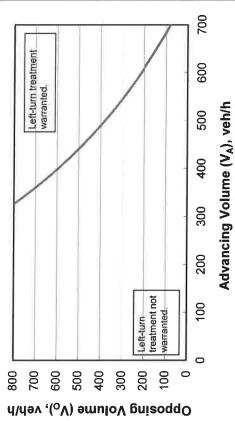


85 <sup>th</sup> percentile speed, mph: 60 kPercent of left-turns in advancing volume (V <sub>A</sub> ), %: 4% 760 bposing volume (V <sub>o</sub> ), veh/h: 760 b, veh/h: 760 kPercent of left-turns volume (V <sub>o</sub> ), veh/h: 760 kPercent volume (V <sub>o</sub> ), veh/h: 760	Variable	Value	
ng volume (V <sub>A</sub> ), %: 4% 760 1160	£	09	Ч/ч
760 1160	Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	4%	l9/
, veh/h: 1160	Advancing volume (V <sub>A</sub> ), veh/h:	760	<b>۱</b> '(
		1160	٥ <mark>٨</mark>
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	Value
Limiting advancing volume (V <sub>A</sub> ), veh/h: 391	391
Guidance for determining the need for a major-road left-turn bay:	

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9



2-lane roadway (English) INPUT

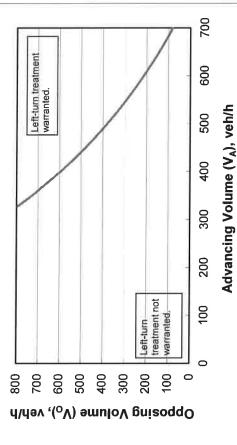
ng volume (V <sub>A</sub> ), %:	ng volume (V <sub>A</sub> ), %: 60 874 767	ng volume (V <sub>A</sub> ), %:	Variable	Value
advancing volume (V <sub>A</sub> ), %: ), veh/h:	ng volume (V <sub>A</sub> ), %: 3% 874 767	ng volume (V <sub>A</sub> ), %: 3% 874 767	85 <sup>th</sup> percentile speed, mph:	60
	874 767	874 767	Percent of left-turns in advancing volume (V <sub>A</sub> ), %:	3%
	, veh/h: 767	, veh/h: 767	Advancing volume (V <sub>A</sub> ), veh/h:	874
, ven/n:				767

Variable	Value
imiting advancing volume (V <sub>A</sub> ), veh/h:	391
Guidance for determining the need for a major-road left-furn hav	hav.

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Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

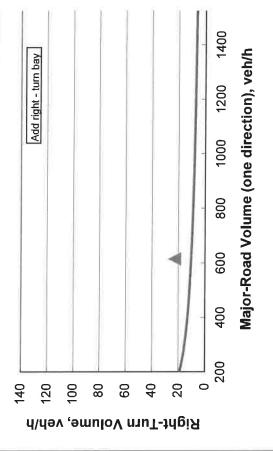
2030 SMBU



INPUT

Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	614
Right-turn volume, veh/h:	23

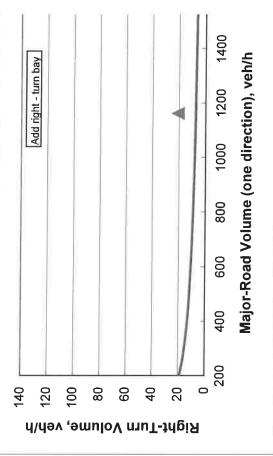
Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



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Koadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	1162
Right-turn volume, veh/h:	21

Variable	Value
Limiting right-turn volume, veh/h:	2
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

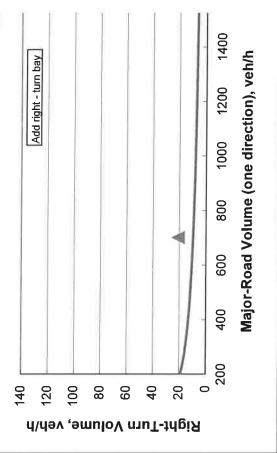


INPUT	

Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	09
Major-road volume (one direction), veh/h:	701
Right-turn volume, veh/h:	21

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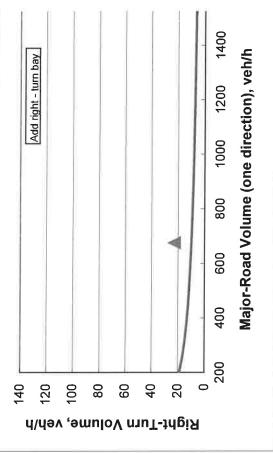
Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



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Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	675
Right-turn volume, veh/h:	23

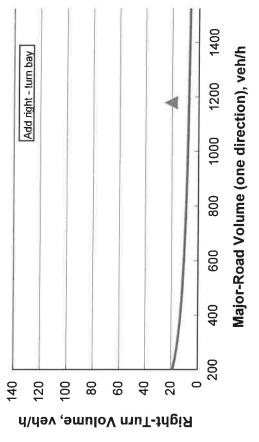
Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



INPUT

Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	1179
Right-turn volume, veh/h:	21

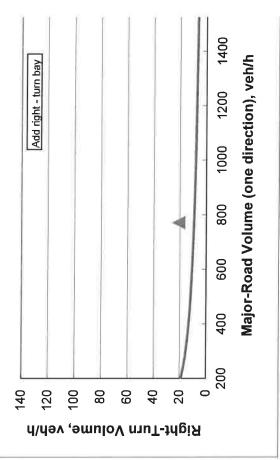
Variable	Value
Limiting right-turn volume, veh/h:	2
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



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Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	771
Right-turn volume, veh/h:	21

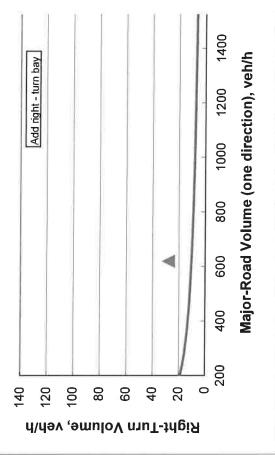
Variable	Value
Limiting right-turn volume, veh/h:	σ
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



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Roadway geometry:	2-lane roadw ay \vee
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	619
Right-turn volume, veh/h:	28

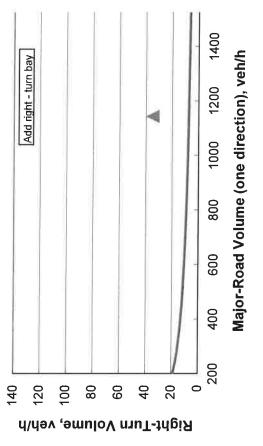
Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



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Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	1143
Right-turn volume, veh/h:	35

Variable	Value
Limiting right-turn volume, veh/h:	8
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



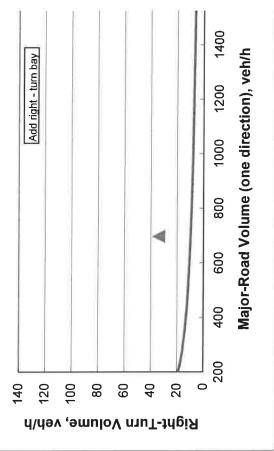
Guidelines for Major-Road Right-Turn Lane (SOUTH)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

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Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph;	60
Major-road volume (one direction), veh/h:	697
Right-turn volume, veh/h:	34

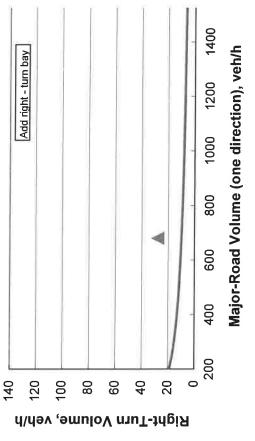
Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



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Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	680
Right-turn volume, veh/h:	28

Variable	Value
Limiting right-turn volume, veh/h:	10
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

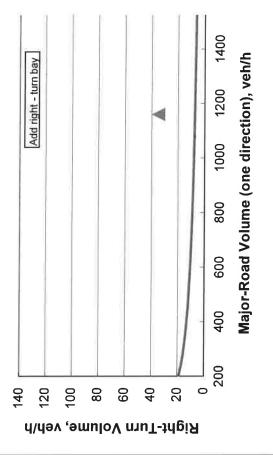


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Roadway geometry:	2-lane roadw ay
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	1160
Right-turn volume, veh/h:	35

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Variable	Value
Limiting right-turn volume, veh/h:	7
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	



Guidelines for Major-Road Right-Turn Lane (SOUTH)

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

NPUT	Roadway geometry:	
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Koadway geometry:	2-lane roadw ay
Variable	Value
Aajor-road speed, mph:	60
Major-road volume (one direction), veh/h:	767
Right-turn volume, veh/h:	34

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Variable	Value
Limiting right-turn volume, veh/h:	6
Guidance for determining the need for a major-road	
right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

