

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.

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

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EXECUTIVE SUMMARY

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 NHDOT for the Project.

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

1. Using trip-generation statistics published by the Institute of Transportation Engineers (ITE)¹ 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

¹*Trip Generation*, 10th 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)*.²
- 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:

²*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 dry-cleaning 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± 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.

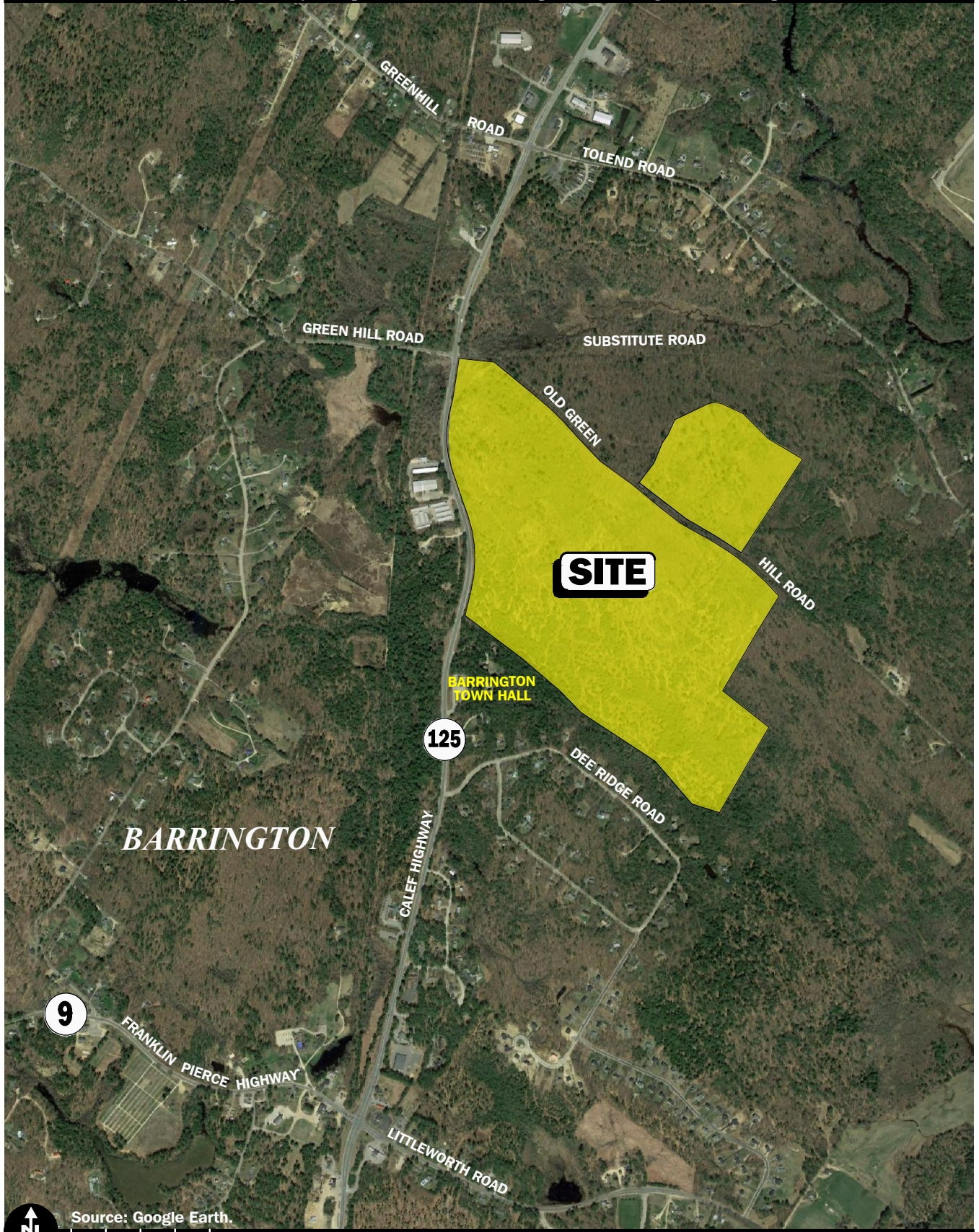


Figure 1

Site Location Map



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 without the Project; 2) 2020 Opening-Year Build conditions with the Project; 3) 2030 No-Build conditions without the Project; and 4) 2030 Build conditions (ten-year projection from opening-year) with 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.

EXISTING CONDITIONS

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.

**Table 1
STUDY AREA INTERSECTION DESCRIPTION**

Intersection	Traffic Control Type ^a	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 ^b
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

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

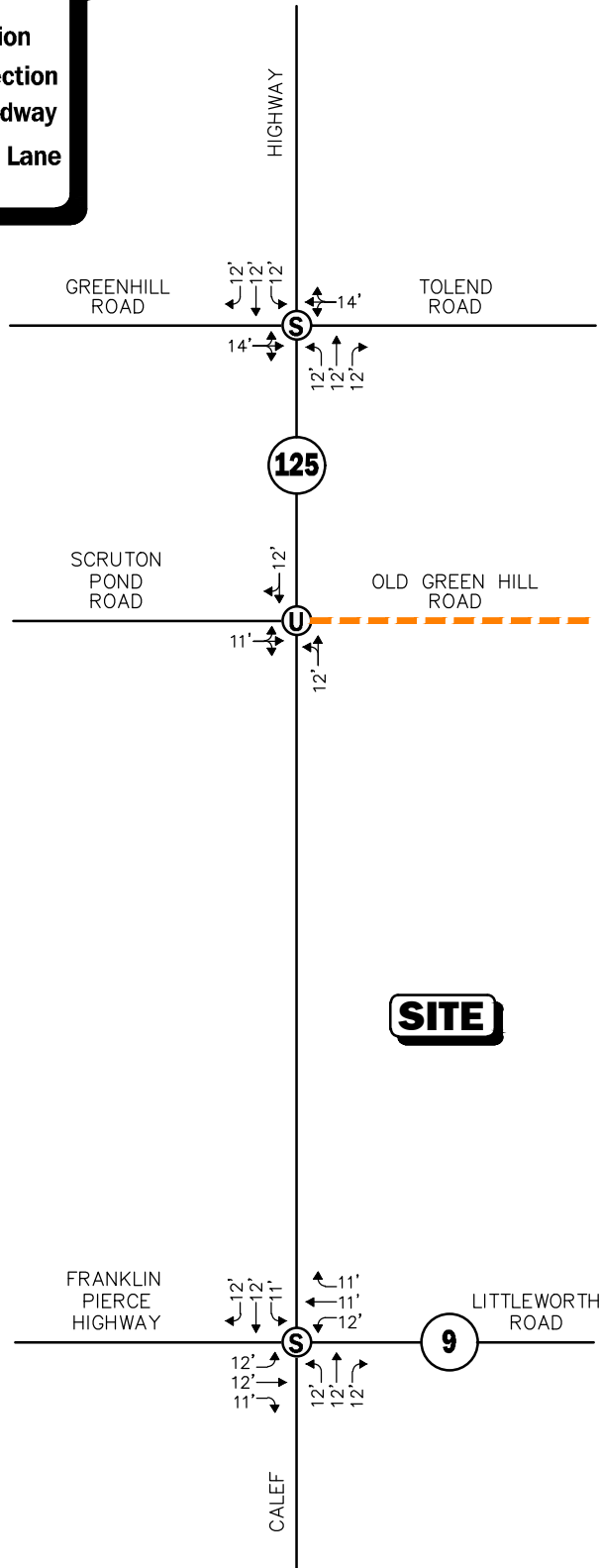
^bCombined shoulder and travel lane width equal to or exceed 14 feet.

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 7th (Thursday) through 9th (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.

Legend:

- Ⓢ **Signalized Intersection**
- Ⓤ **Unsignalized Intersection**
- **Unpaved Gravel Roadway**
- xx' ↔ **Lane Use and Travel Lane Width**



Not To Scale



Vanasse & Associates, Inc.
Transportation Engineers & Planners

Figure 2

**Existing Intersection Lane Use,
Travel Lane Width and
Pedestrian Facilities**

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 below 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, peak-hour traffic volumes are depicted on Figure 3 and are summarized in Table 1. Note that the peak-hour traffic volumes referenced in Table 1 were obtained from the TMCs and are reflected on the aforementioned figure.

Table 1
2019 EXISTING PEAK-MONTH TRAFFIC VOLUMES

Location/Peak Hour	AWT ^a	Saturday ^b	VPH ^c	K Factor ^d	Directional Distribution ^e
<i>NH Route 125, south of Scruton Pond Road</i>	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

^aAverage weekday traffic in vehicles per day.

^bVehicles.

^cVehicles per hour.

^dPercent of daily traffic occurring during the peak hour.

^ePercent 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

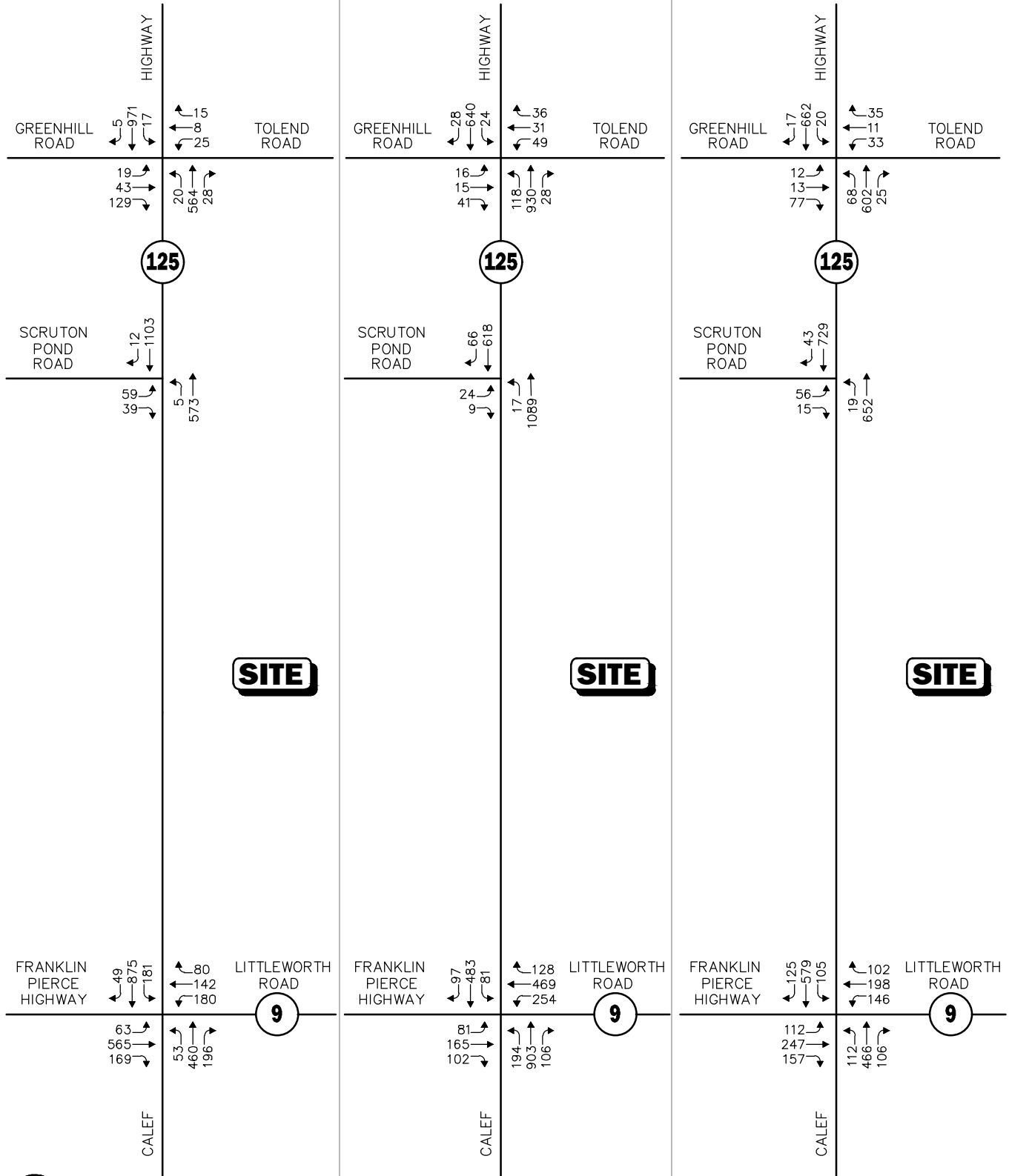
A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in March 2019. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadway and at the study intersection, as well as the location 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 condition³ and NH Route 125 is designated as a bike route.

³A minimum combined travel lane and paved shoulder width of 14-feet is required to support bicycle travel in a shared traveled-way condition.

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 AM - 12:00 PM)**



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 3



**2019 Existing
Peak Month
Peak Hour Traffic Volumes**

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.

Table 3
VEHICLE TRAVEL SPEED MEASUREMENTS

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

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 85th 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 85th 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.

FUTURE CONDITIONS

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.

No-Build Traffic Volumes

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.

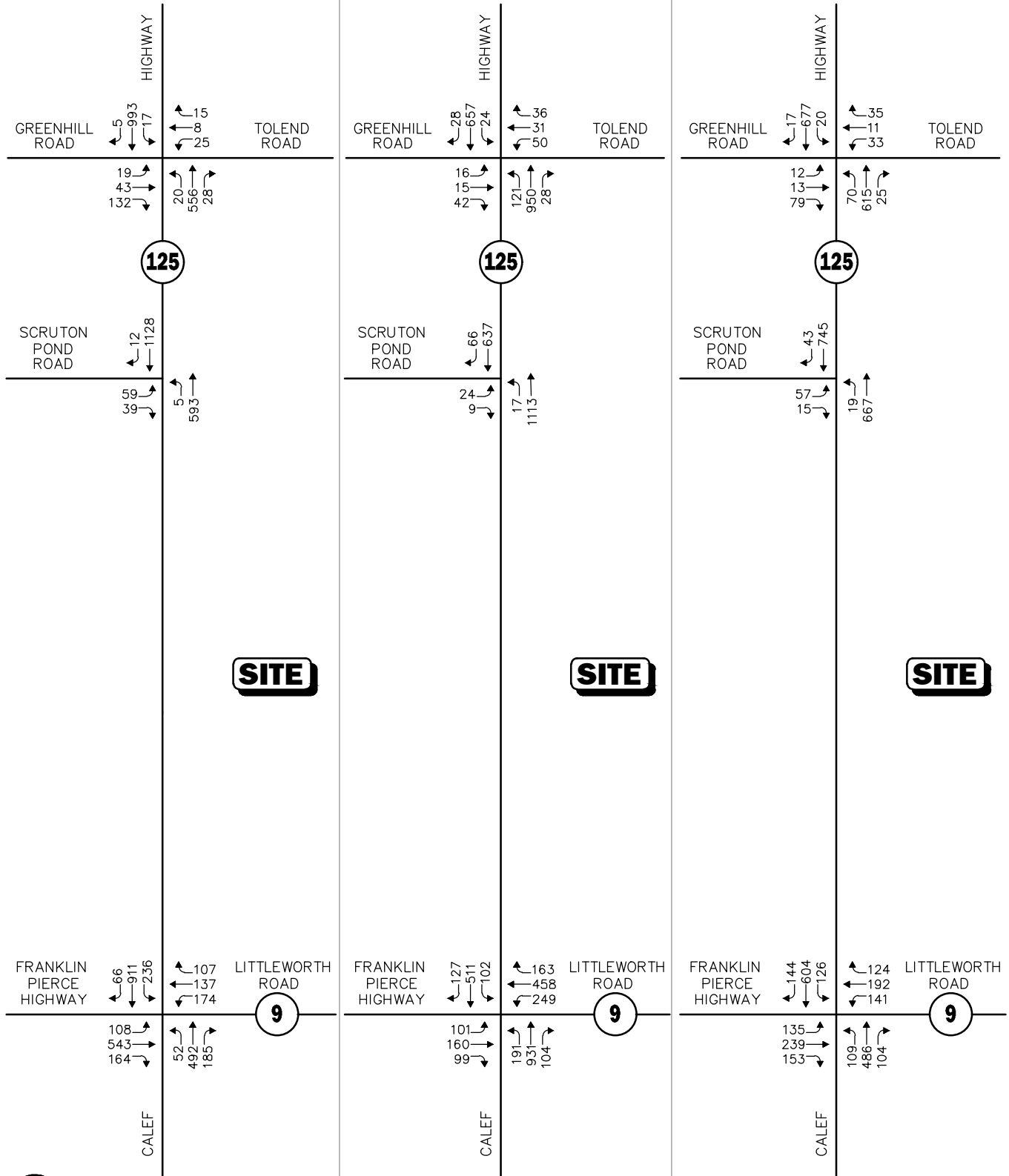
The Project will entail the phased construction of a mixed-use development that will include: 55 single-family homes; 53,200± sf of commercial space that may include retail and office space, a bank with a drive-through teller facility, contractor's storage and warehouse space; and donation of a parcel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

⁴Ibid 1.

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 AM - 12:00 PM)**



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 4

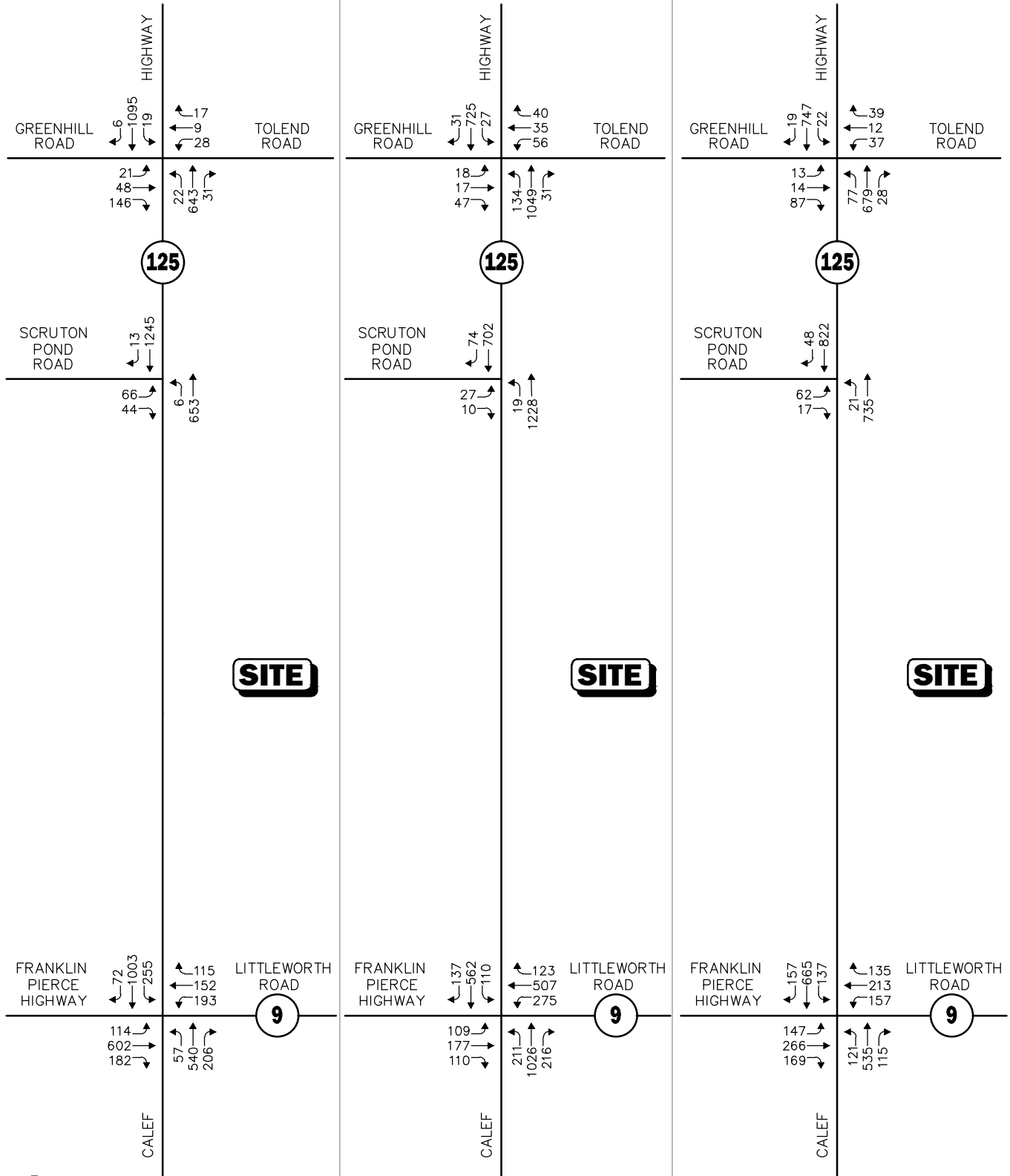


**2020 No-Build
Peak Month
Peak Hour Traffic Volumes**

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 AM - 12:00 PM)**



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 5



**2030 No-Build
Peak Month
Peak Hour Traffic Volumes**

characteristics of the Project, trip-generation statistics published by the ITE⁵ 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 ITE⁶ 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.

⁵Ibid 1.

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

Table 4
TRIP GENERATION SUMMARY

Time Period/Direction	(A) Single-Family Homes (55 Units) ^a	(B) Office Building (20,000 sf) ^b	(C) Municipal Building (10,000 sf) ^c	(D) Warehouse (8,000 sf) ^d	(E) Contractor/Trade Storage Building (14,000 sf) ^e	(F) Retail Space (8,000 sf) ^f	(G) Bank (3,200 sf) ^g	(H = A + B + C + D + E + F + G) Total Trips	(I) Pass-By Trips ^h	(J = H - I) New Trips
<i>Average Weekday Daily</i>										
Entering	300	112	113	29	72	151	191	968	102	866
Exiting	<u>300</u>	<u>112</u>	<u>113</u>	<u>29</u>	<u>72</u>	<u>151</u>	<u>191</u>	<u>968</u>	<u>102</u>	<u>866</u>
Total	600	224	226	58	144	302	382	1,936	204	1,732
<i>Weekday Morning Peak Hour</i>										
Entering	11	20	25	20	17	5	17	115	4	111
Exiting	<u>33</u>	<u>3</u>	<u>8</u>	<u>6</u>	<u>6</u>	<u>3</u>	<u>13</u>	<u>72</u>	<u>4</u>	<u>68</u>
Total	44	23	33	26	23	8	30	187	8	179
<i>Weekday Evening Peak Hour</i>										
Entering	36	4	4	8	9	14	32	107	16	91
Exiting	<u>21</u>	<u>21</u>	<u>13</u>	<u>21</u>	<u>19</u>	<u>16</u>	<u>33</u>	<u>144</u>	<u>16</u>	<u>128</u>
Total	57	25	17	29	28	30	65	251	32	219
<i>Saturday</i>										
Entering	280	22	0	1	6	185	139	633	101	532
Exiting	<u>280</u>	<u>22</u>	<u>0</u>	<u>1</u>	<u>6</u>	<u>185</u>	<u>139</u>	<u>633</u>	<u>101</u>	<u>532</u>
Total	560	44	0	2	12	370	278	1,266	202	1,064
<i>Saturday Midday Peak Hour</i>										
Entering	35	6	0	0	2	19	43	105	21	84
Exiting	<u>29</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>17</u>	<u>41</u>	<u>97</u>	<u>21</u>	<u>76</u>
Total	64	11	0	0	7	36	84	202	42	160

^aBased on ITE LUC 210, *Single-Family Detached Housing*.

^bBased on ITE LUC 710, *General Office Building*.

^cBased on ITE LUC 730, *Government Office Building*. Closed on Saturday.

^dBased on ITE LUC 150, *Warehousing*.

^eBased 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.

^fBased on ITE LUC 820, *Shopping Center*. Average trip rate used due to small size of retail component.

^gBased on ITE LUC 912, *Drive-in Bank*.

^hA 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 - 38 percent.

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.

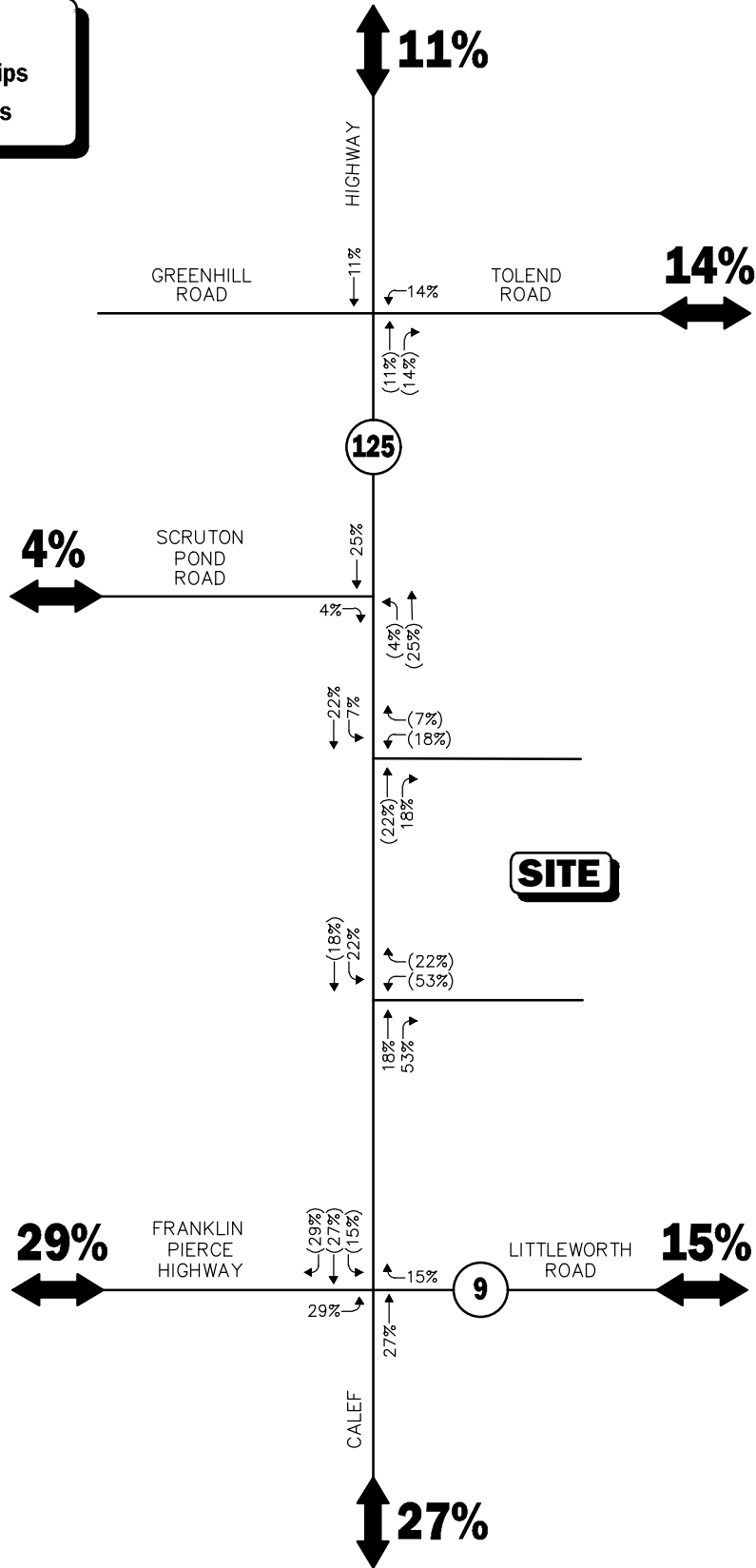
FUTURE TRAFFIC VOLUMES - BUILD CONDITION

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.

Legend:

- XX Entering Trips
- (XX) Exiting Trips



Not To Scale

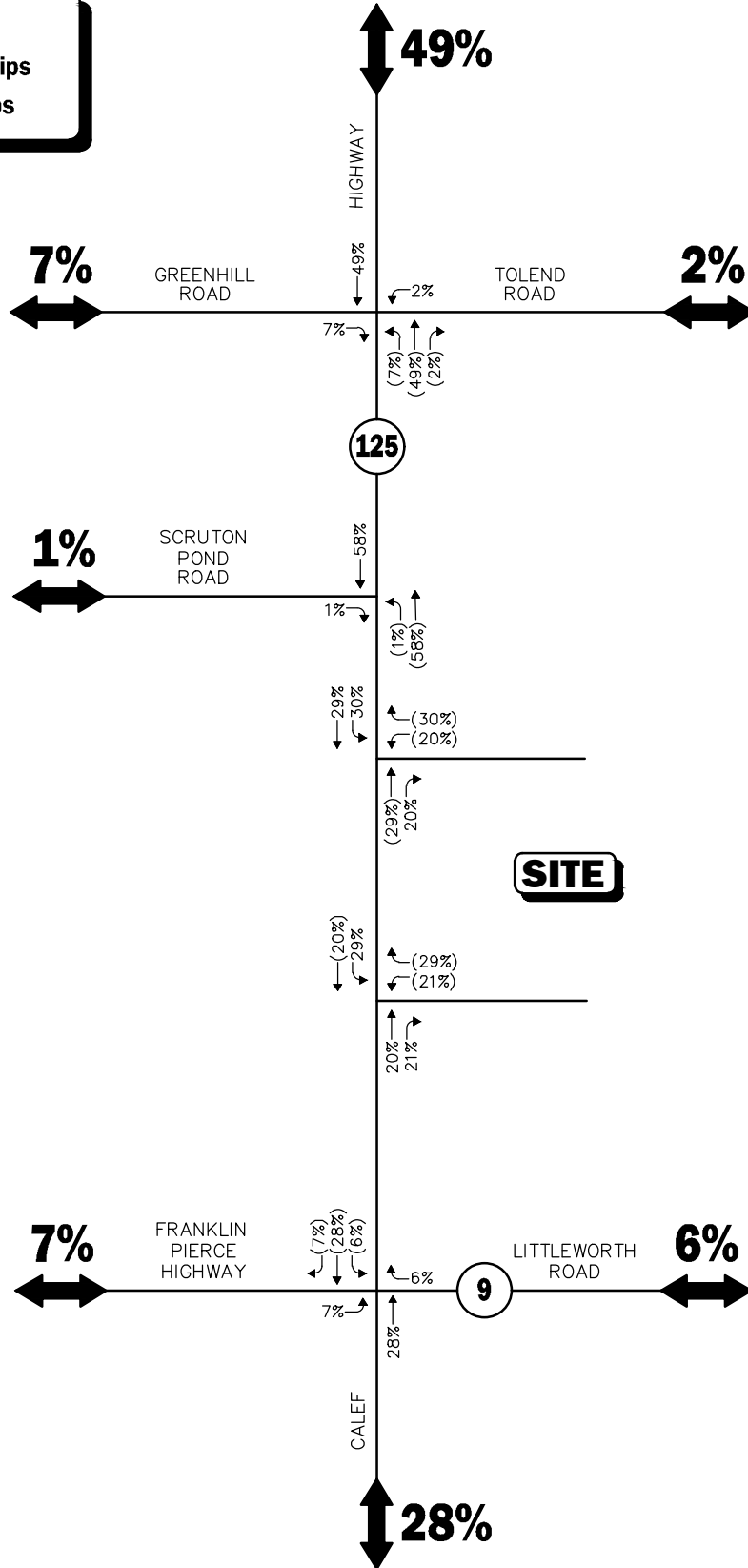
Figure 6



**Trip Distribution Map
Residential Component**

Legend:

- XX Entering Trips
- (XX) Exiting Trips



Not To Scale

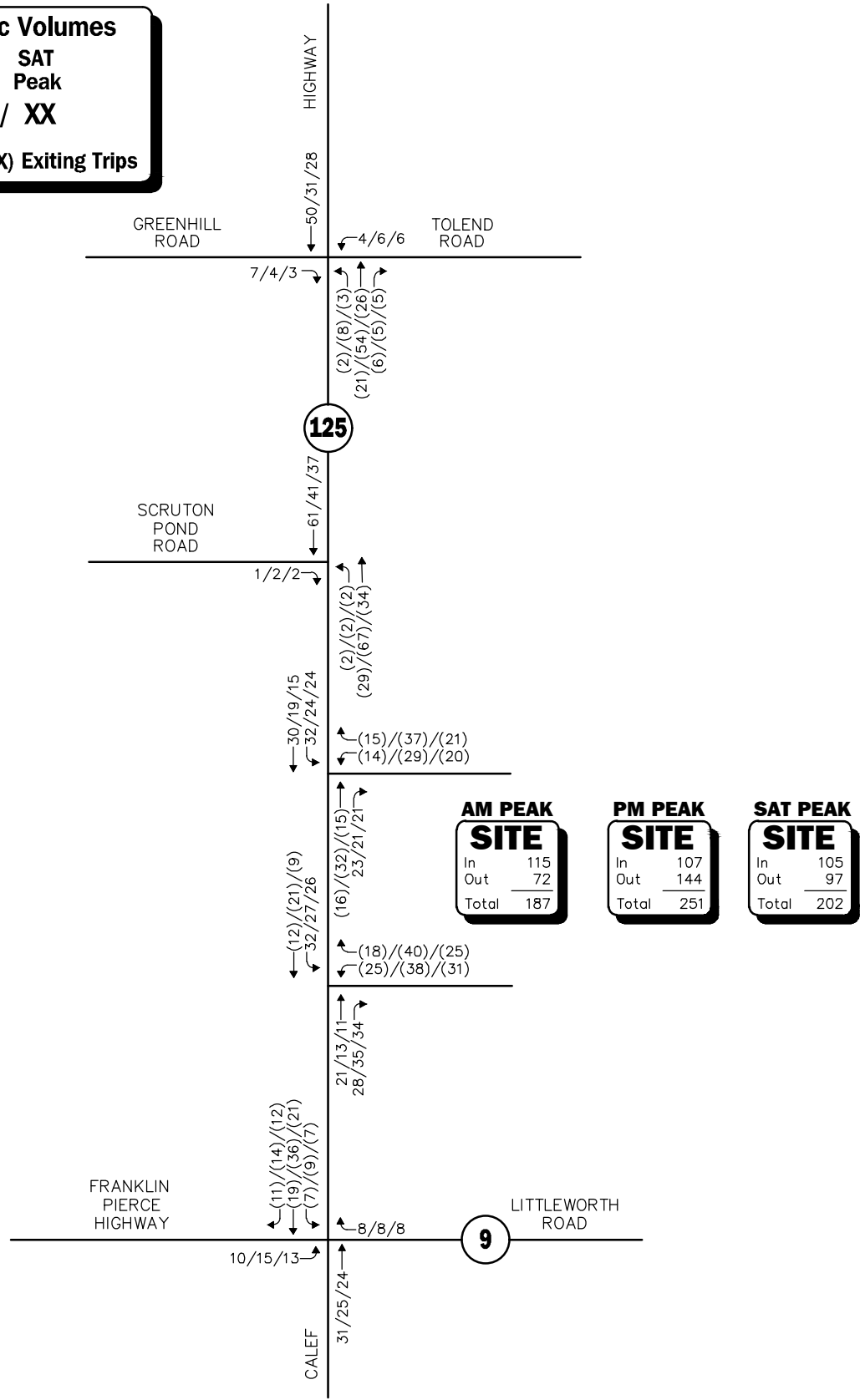
Figure 7



Vanasse & Associates, Inc.
Transportation Engineers & Planners

**Trip Distribution Map
Commercial Component**

Peak-Hour Traffic Volumes
 AM PM SAT
 Peak Peak Peak
XX / XX / XX
 XX Entering Trips (XX) Exiting Trips



Not To Scale **Figure 8**



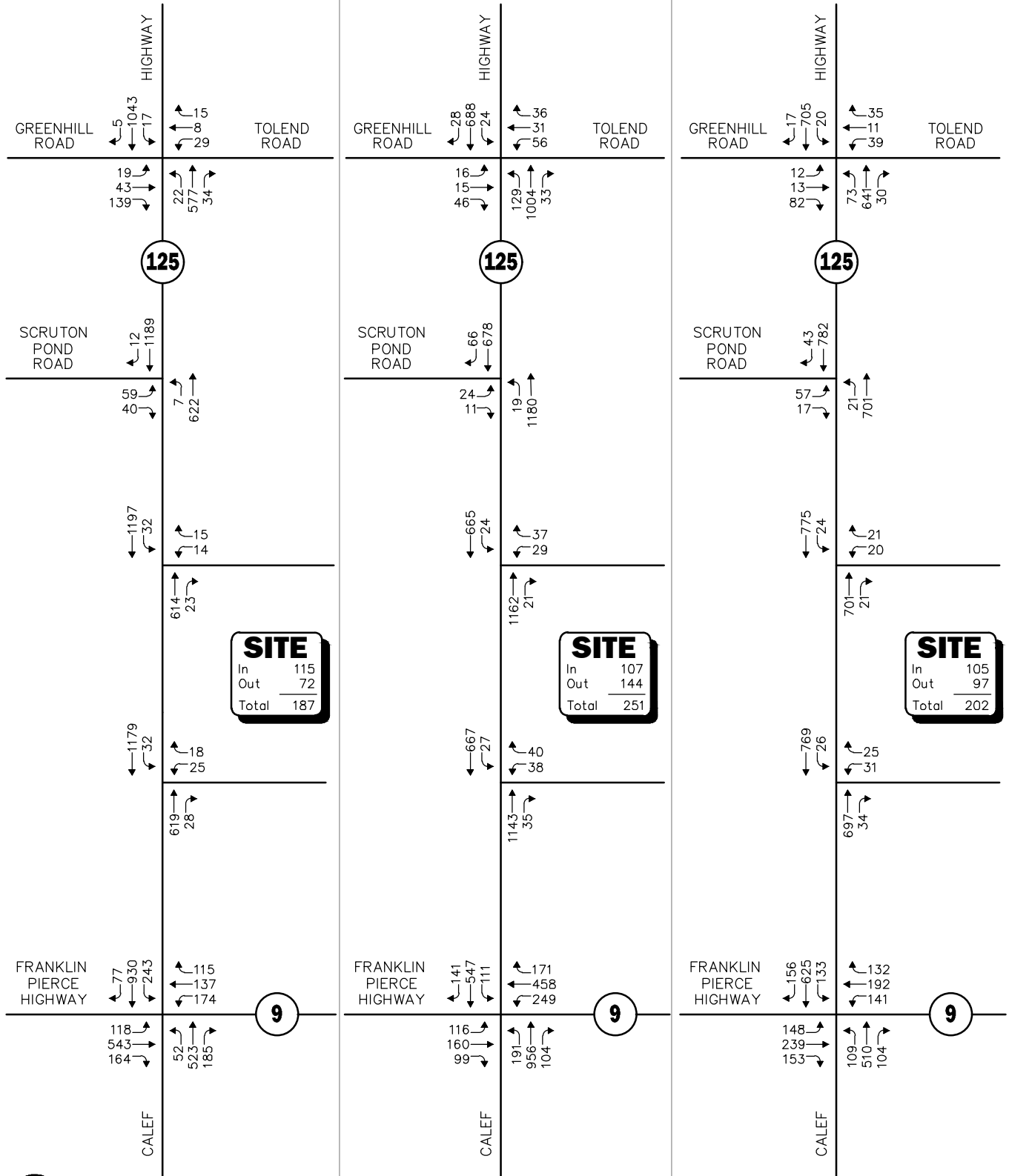
Project-Generated Peak Hour Traffic Volumes

R:\8188\8188NT0.dwg, 4/30/2019 8:35:36 AM

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 - 12:00 PM)**



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
 Not To Scale **Figure 9**

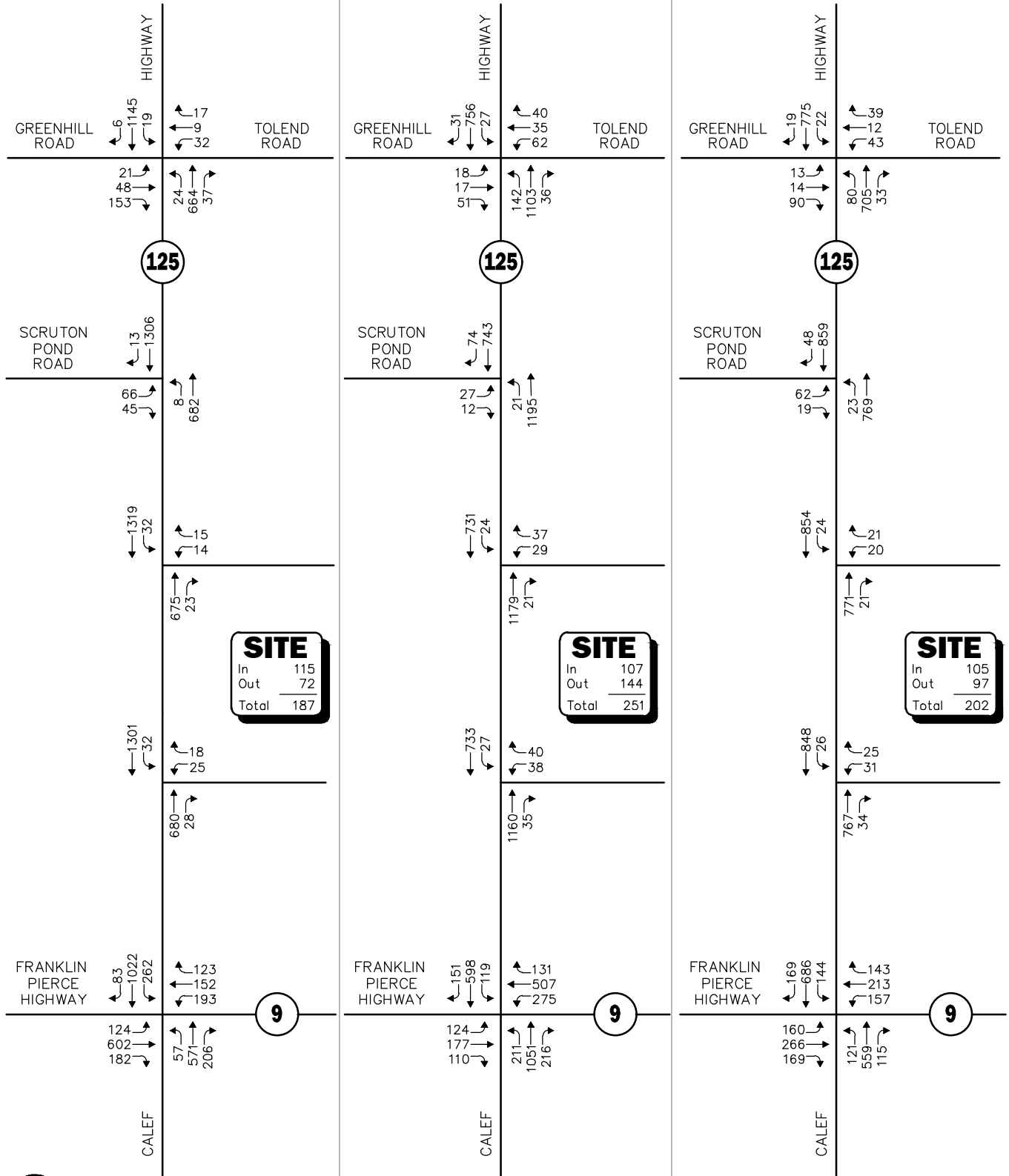


**2020 Opening-Year Build
Peak Hour Traffic Volumes
Peak Month Conditions**

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 - 12:00 PM)**



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.

Not To Scale

Figure 10



**2030 Opening-Year Build
Peak Hour Traffic Volumes
Peak Month Conditions**

Table 5
PEAK-HOUR TRAFFIC-VOLUME INCREASES

Location/Peak Hour	2019 Existing	2020/2030 No-Build	2020/2030 Build	Traffic Volume Increase Over No-Build (2020/2030)	Percent Increase Over No-Build (2020/2030)
<i>NH Route 125, north of Greenhill Road/ Tolend Road:</i>					
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
<i>NH Route 125, south of NH Route 9:</i>					
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
<i>Tolend Road, east of NH Route 125:</i>					
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
<i>Greenhill Road, west of NH Route 125:</i>					
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
<i>NH Route 9, east of NH Route 125:</i>					
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
<i>NH Route 9, west of NH Route 125:</i>					
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
<i>Scruton Pond Road, west of NH Route 125:</i>					
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

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.***

TRAFFIC OPERATIONS ANALYSIS

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.⁷ 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.

⁷The 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 over-saturation. 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^a

Level of Service	Control (Signal) Delay Per Vehicle (Seconds)
A	≤10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	>80.0

^aSource: *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*.⁸ 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.

⁸*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

Table 7
LEVEL-OF-SERVICE CRITERIA FOR
UNSIGNALIZED INTERSECTIONS^a

Level-Of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	>50.0

^aSource: *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 (50th percentile) the 95th percentile vehicle queue. For unsignalized intersections, Synchro® reports the 95th 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 95th 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 95th 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 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 Scruton 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

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

Signalized Intersection/ Peak Hour/Movement	2019 Existing				2020 No-Build				2020 Opening Year Build				2030 No-Build				2030 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d 50 th /95 th	V/C	Delay	LOS	Queue 50 th /95 th	V/C	Delay	LOS	Queue 50 th /95 th	V/C	Delay	LOS	Queue 50 th /95 th	V/C	Delay	LOS	Queue 50 th /95 th
NH Route 125 at NH Route 9																				
<i>Weekday Morning:</i>																				
NH Route 135 NB LT	0.47	70.4	E	3/5	0.47	72.4	E	3/5	0.47	72.7	E	3/5	0.50	73.9	E	3/5	0.50	74.0	E	3/5
NH Route 135 NB TH	1.27	>80.0	F	27 ^o /38 ^f	1.40	>80.0	F	32 ^o /41 ^f	1.49	>80.0	F	35 ^o /44 ^f	1.56	>80.0	F	36 ^o /46 ^f	1.66	>80.0	F	39 ^o /49 ^f
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	E	5/9
NH Route 135 SB LT	0.72	70.2	E	8/11	0.82	77.9	E	10/15 ^f	0.84	79.2	E	11/16 ^f	0.87	>80.0	F	11/17 ^f	0.88	>80.0	F	12/18 ^f
NH Route 135 SB TH/RT	0.93	64.8	E	21/28	0.93	64.1	E	23/30 ^f	0.95	68.3	E	24/32 ^f	1.03	>80.0	F	28 ^o /36 ^f	1.05	>80.0	F	29 ^o /37 ^f
NH Route 9 SEB LT	0.46	67.9	E	3/5	0.61	70.2	E	5/8	0.63	70.7	E	6/8	0.63	72.2	E	6/8	0.65	72.4	E	6/8
NH Route 9 SEB TH	1.08	>80.0	F	30 ^o /40 ^f	1.07	>80.0	F	30 ^o /37 ^f	1.07	>80.0	F	30 ^o /37 ^f	1.20	>80.0	F	36 ^o /43 ^f	1.21	>80.0	F	36 ^o /43 ^f
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	3/6
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	0.90	>80.0	F	12/12	0.91	>80.0	F	12/12
NH Route 9 NWB TH	0.29	28.8	C	6/7	0.31	33.9	C	6/7	0.32	34.8	C	6/7	0.34	35.2	D	7/8	0.35	36.1	D	7/8
NH Route 9 NWB RT	0.08	26.0	C	0/1	0.14	31.5	C	1/2	0.16	32.4	C	1/2	0.17	32.5	C	2/2	0.18	33.5	C	2/2
Overall	1.02	>80.0	F	--	1.05	>80.0	F	--	1.08	>80.0	F	--	1.16	>80.0	F	--	1.19	>80.0	F	--
<i>Weekday Evening:</i>																				
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	8/13
NH Route 135 NB TH	1.67	>80.0	F	51 ^o /67 ^f	1.78	>80.0	F	54 ^o /73 ^f	1.87	>80.0	F	57 ^o /77 ^f	2.04	>80.0	F	64 ^o /82 ^f	2.15	>80.0	F	67 ^o /87 ^f
NH Route 135 NB RT	0.09	31.0	C	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	4/8
NH Route 135 SB LT	0.45	54.7	D	3/6	0.52	55.1	E	4/7	0.54	56.1	E	4/7	0.56	60.0	E	4/7	0.58	61.1	E	5/8
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 ^f
NH Route 9 SEB LT	0.45	54.6	D	3/6	0.51	55.1	E	4/7	0.55	56.1	E	5/8	0.55	59.9	E	4/7	0.58	60.9	E	5/8
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	6/10
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	0/2
NH Route 9 NWB LT	0.74	54.2	D	9/15	0.74	55.6	E	9/15	0.75	57.1	E	9/15	0.80	63.4	E	10/17 ^f	0.81	64.7	E	10/17 ^f
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 ^f
NH Route 9 NWB RT	0.12	28.8	C	1/3	0.20	31.1	C	2/5	0.22	32.2	C	2/5	0.11	30.1	C	1/3	0.12	31.0	C	1/3
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	--
<i>Saturday MIDDAY:</i>																				
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	4/7
NH Route 135 NB TH	0.85	45.1	D	12/28 ^f	0.89	51.2	D	13/29 ^f	0.94	60.4	E	14/32 ^f	1.03	>80.0	F	18 ^o /37 ^f	1.09	>80.0	F	20 ^o /39 ^f
NH Route 135 NB RT	0.08	26.0	C	0/2	0.08	26.4	C	0/2	0.08	26.8	C	0/2	0.10	29.4	C	1/3	0.10	29.9	C	1/3
NH Route 135 SB LT	0.50	42.9	D	4/6	0.55	43.4	D	4/7	0.57	43.7	D	4/7	0.58	46.3	D	5/8	0.60	46.7	D	5/8
NH Route 135 SB TH/RT	0.78	36.4	D	11/17 ^f	0.80	36.4	D	12/17	0.83	38.2	D	13/19 ^f	0.92	49.1	D	15/24 ^f	0.95	53.7	D	16/25 ^f
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	5/10
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	8/14
NH Route 9 SEB RT	0.25	33.9	C	2/4	0.24	34.7	C	2/4	0.24	35.0	D	2/4	0.28	35.9	D	2/5	0.28	36.3	D	2/5
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	5/9
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	6/11
NH Route 9 NWB RT	0.07	30.7	C	0/2	0.14	33.6	C	1/3	0.17	34.7	C	1/3	0.17	34.3	C	1/4	0.20	35.7	D	1/4
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	E	--

^aVolume-to-capacity ratio.

^bControl (signal) delay per vehicle in seconds.

^cLevel-of-Service.

^dQueue length in vehicles.

^eVolume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.

^f95th 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**

Unsignalized Intersection/Peak Hour/Movement	2019 Existing				2020 No-Build				2020 Opening-Year Build				2030 No-Build				2030 Build			
	Demand ^a	Delay ^b	LOS ^c	Queue ^d 95 th	Demand	Delay	LOS	Queue 95 th	Demand	Delay	LOS	Queue 95 th	Demand	Delay	LOS	Queue 95 th	Demand	Delay	LOS	Queue 95 th
NH Route 125 at Scranton Pond Road																				
<i>Weekday Morning:</i>																				
Scranton Pond Road EB LT/RT	98	>50.0	F	8	98	>50.0	F	8	99	>50.0	F	9	110	>50.0	F	11	111	>50.0	F	13
NH Route 125 NB LT/TH	580	0.1	A	0	598	0.1	A	0	629	0.1	A	0	659	0.1	A	0	690	0.1	A	0
NH Route 125 SB TH/RT	1,115	0.0	A	0	1,140	0.0	A	0	1,201	0.0	A	0	1,258	0.0	A	0	1,319	0.0	A	0
<i>Weekday Evening:</i>																				
Scranton Pond Road EB LT/RT	33	>50.0	F	3	33	>50.0	F	3	35	>50.0	F	4	37	>50.0	F	5	39	>50.0	F	6
NH Route 125 NB LT/TH	1,106	0.1	A	0	1,130	0.1	A	0	1,199	0.1	A	0	1,247	0.1	A	0	1,216	0.2	A	0
NH Route 125 SB TH/RT	684	0.0	A	0	703	0.0	A	0	744	0.0	A	0	776	0.0	A	0	817	0.0	A	0
<i>Saturday Midday:</i>																				
Scranton Pond Road EB LT/RT	71	>50.0	F	5	72	>50.0	F	5	74	>50.0	F	6	79	>50.0	F	7	81	>50.0	F	8
NH Route 125 NB LT/TH	671	0.3	A	0	686	0.3	A	0	722	0.3	A	0	756	0.3	A	0	792	0.3	A	0
NH Route 125 SB TH/RT	772	0.0	A	0	788	0.0	A	0	825	0.0	A	0	870	0.0	A	0	907	0.0	A	0
NH Route 125 at North Project Site Driveway																				
<i>Weekday Morning:</i>																				
North Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	29	>50.0	F	2	--	--	--	--	29	>50.0	F	2
NH Route 125 NB TH/RT	--	--	--	--	--	--	--	--	637	0.0	A	0	--	--	--	--	698	0.0	A	0
NH Route 125 SB LT/TH	--	--	--	--	--	--	--	--	1,229	0.2	A	0	--	--	--	--	1,351	0.2	A	0
<i>Weekday Evening:</i>																				
North Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	66	>50.0	F	4	--	--	--	--	66	>50.0	F	5
NH Route 125 NB TH/RT	--	--	--	--	--	--	--	--	1,183	0.0	A	0	--	--	--	--	1,200	0.0	A	0
NH Route 125 SB LT/TH	--	--	--	--	--	--	--	--	689	0.4	A	0	--	--	--	--	755	0.4	A	0
<i>Saturday Midday:</i>																				
North Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	41	35.4	E	1	--	--	--	--	41	45.6	E	2
NH Route 125 NB TH/RT	--	--	--	--	--	--	--	--	722	0.0	A	0	--	--	--	--	788	0.0	A	0
NH Route 125 SB LT/TH	--	--	--	--	--	--	--	--	799	0.3	A	0	--	--	--	--	878	0.3	A	0
NH Route 125 at South Project Site Driveway																				
<i>Weekday Morning:</i>																				
South Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	43	>50.0	F	3	--	--	--	--	43	>50.0	F	4
NH Route 125 NB TH/RT	--	--	--	--	--	--	--	--	647	0.0	A	0	--	--	--	--	708	0.0	A	0
NH Route 125 SB LT/TH	--	--	--	--	--	--	--	--	1,211	0.2	A	0	--	--	--	--	1,333	0.2	A	0
<i>Weekday Evening:</i>																				
South Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	78	>50.0	F	6	--	--	--	--	78	>50.0	F	6
NH Route 125 NB TH/RT	--	--	--	--	--	--	--	--	1,178	0.0	A	0	--	--	--	--	1,195	0.0	A	0
NH Route 125 SB LT/TH	--	--	--	--	--	--	--	--	694	0.5	A	0	--	--	--	--	760	0.4	A	0
<i>Saturday Midday:</i>																				
South Project Site Driveway WB LT/RT	--	--	--	--	--	--	--	--	56	44.9	E	2	--	--	--	--	56	>50.0	F	3
NH Route 125 NB TH/RT	--	--	--	--	--	--	--	--	731	0.0	A	0	--	--	--	--	801	0.0	A	0
NH Route 125 SB LT/TH	--	--	--	--	--	--	--	--	795	0.3	A	0	--	--	--	--	874	0.3	A	0

^aDemand in vehicles per hour.

^bAverage control delay per vehicle (in seconds).

^cLevel-of-Service.

^dQueue length in vehicles.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

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)⁹ 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.

⁹*A Policy on Geometric Design of Highway and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018.

Table 10
SIGHT DISTANCE MEASUREMENTS^a

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

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

^bValues 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.

^cWith 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 85th percentile vehicle travel speed (58-59 mph) and 10 mph above the posted speed limit (50 mph).

TURN LANE WARRANTS ANALYSIS

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*¹⁰ published by National Cooperative Highway Research Program (NCHRP).

Left-Turn Lane

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.

Right-Turn Lane

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 Scranton 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 approaches to the Project site roadways. 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.

¹⁰*NCHRP Report 457 – Evaluating Intersection Improvement: An Engineering Study Guide*, National Cooperative Highway Research Program; 2001.

CONCLUSIONS AND RECOMMENDATIONS

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 ITE¹¹ 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 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;

¹¹Ibid 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).¹²
- 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.

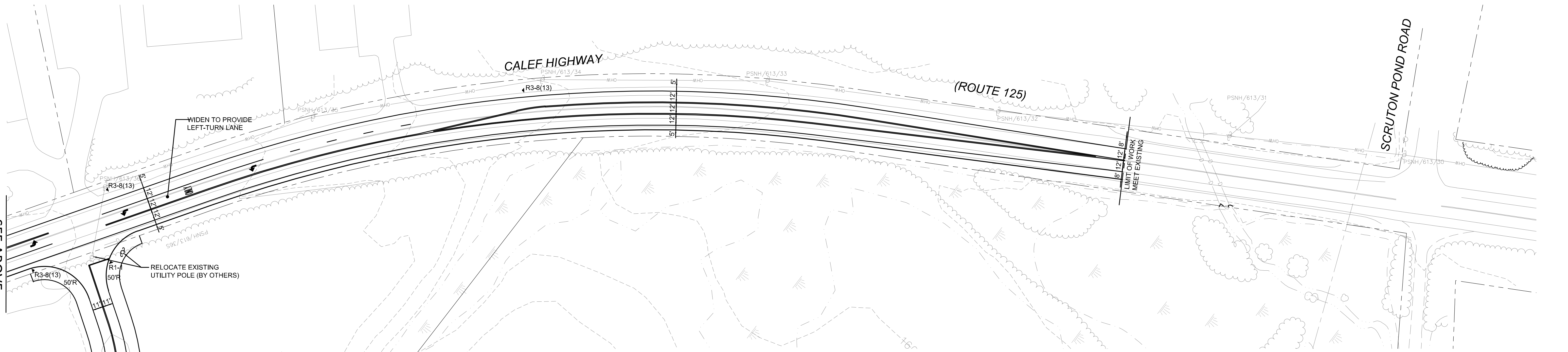
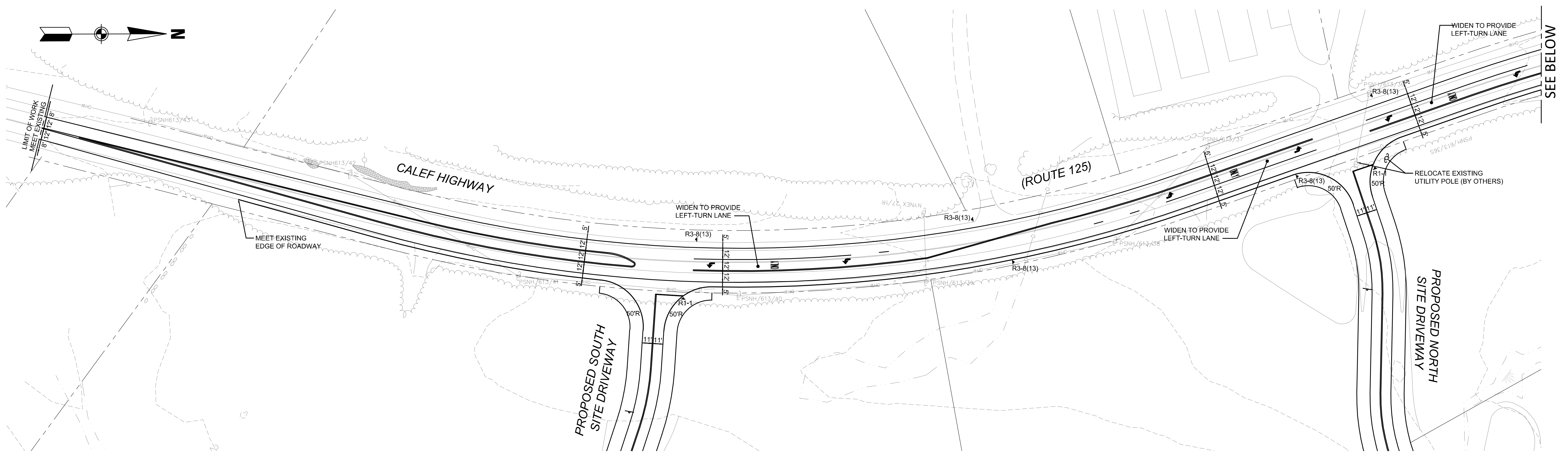
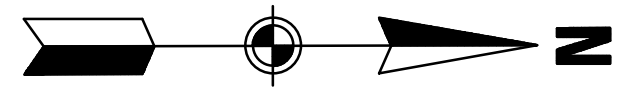
Transportation Demand Management Measures

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:

¹²Ibid 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 dry-cleaning 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.



SIGN LEGEND	
R1-1	
R3-8(13)	



NOTES: 1. THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION.
 2. BASE PLAN INFORMATION OBTAINED FROM BEALS ASSOCIATES, PLLC.

FIGURE 11
 CONCEPTUAL IMPROVEMENT PLAN

PROJECT:
 PROPOSED MIXED-USE DEVELOPMENT
 BARRINGTON, NEW HAMPSHIRE

PROPOSER:
 HARBOR STREET LIMITED PARTNERSHIP
 STRATHAM, NEW HAMPSHIRE

NO.	REVISIONS	DATE



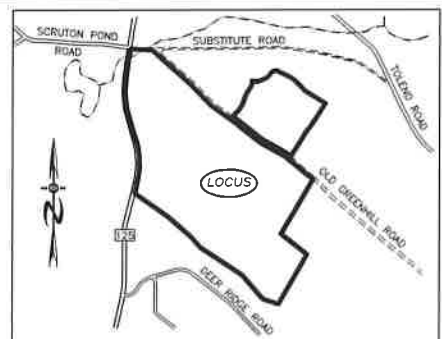
DESIGNED BY: JSD	DATE: 05/03/19
DRAWN BY: JTG	SCALE: 1" = 50'
CHECKED BY: JSD	SHEET 1 OF 1

R:\9188\8188\CON\DWG_5/6/2019_12:57 PM

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



LOCATION MAP
1"=1500'

ZONING REQUIREMENTS

ZONE: REGIONAL COMMERCIAL
 CONSERVATION SUBDIVISION
 MIN. PARENT PARCEL = 20.0 AC.
 MIN. LOT SIZE = 20,000 SF
 MIN. WIDTH = 75' @ FRONT SETBACK
 MIN. PERIMETER BUFFER = 100'
 MAX. HEIGHT = 35'

BUILDING SETBACKS:

FRONT 25'
 SIDE & REAR 20'
 WETLANDS 50'
 LEACH FIELD SETBACKS
 POORLY DRAINED SOILS 50'
 VERY POORLY DRAINED SOILS 75'

PREPARED FOR:

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

NOTES

- 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 UTILITIES OR STRUCTURES NOT SHOWN, THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE.
- THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
- ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
- ALL ROAD AND DRAINAGE WORK TO CONFORM TO TOWN STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- ALL PROPOSED SIGNS SHALL CONFORM TO THE TOWN ZONING REGULATIONS.
- PROJECT IS BASED ON USGS DATUM NAVD 1988. REFERENCE BENCHMARK:
- 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.
- SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.
- DISTURBANCE IS OVER 100,000 SQ. FT. ALTERATION OF TERRAIN PERMIT RSA 485-A:17 IS REQUIRED.
- 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 DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.

REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OF THE SITE AND SHALL BE MAINTAINED THROUGH THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.

ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF BARRINGTON SUBDIVISION REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.



LEGEND

- UTILITY POLE
- TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR - 10'
- EXISTING CONTOUR - 2'
- OVERHEAD UTILITIES
- SOILS BOUNDARY LINE
- BUILDING SETBACK LINE
- SEPTIC SETBACK LINE
- STREAM
- WETLAND BOUNDARY
- PRIME WETLAND BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE

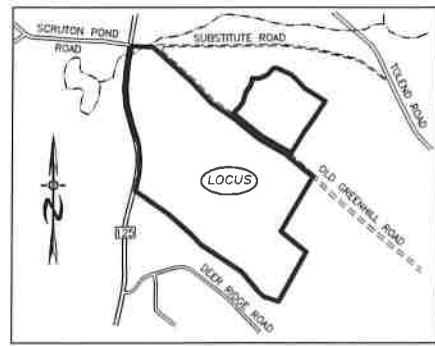
APPROVAL BLOCK

APPROVED TOWN OF BARRINGTON PLANNING BOARD

CHAIRPERSON _____ DATE _____

OPEN SPACE CALCS:
 TOTAL RESIDENTIAL LOT AREA = 179.91 AC.
 REQUIRED OPEN SPACE = 50% OR 89.9 AC.
 MIN. REQUIRED UPLAND AREA = 50% OR 44.9 AC.
 OPEN SPACE PROVIDED = 120.0 AC.
 UPLAND AREA PROVIDED = 85.65 AC.

REVISIONS:	DATE:
OPEN SPACE SUBDIVISION	
PLAN FOR: RESIDENTIAL DEVELOPMENT RT. 125 / OLD GREEN HILL RD. BARRINGTON, NH	
DATE: JAN. 2019	SCALE: 1"=150'
PROJ. NO: N11-1144	SHEET NO. 1 OF 1



LOCATION MAP
1"=1500'

LEGEND

- UTILITY POLE
- TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR - 10'
- EXISTING CONTOUR - 2'
- OVERHEAD UTILITIES
- SOILS BOUNDARY LINE
- BUILDING SETBACK LINE
- SEPTIC SETBACK LINE
- STREAM
- WETLAND BOUNDARY
- PRIME WETLAND BOUNDARY
- ABUTTING PROPERTY LINE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- 4000 SF SEPTIC RESERVE AREA
- PROP. WELL W/ 75' PROTECTIVE RAD.

HISS STANDARDS:

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP.
THE SITE SPECIFIC SOIL SURVEY WAS PRODUCED MARCH 2019, AND WAS PREPARED BY LUKE HURLEY, OF GOVE ENVIRONMENTAL SERVICES, INC. SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH, ISSUE # 10, JANUARY 2011.

SOIL LEGEND:

SOIL SERIES	MAP UNIT	HIGH INTENSITY SOIL TYPES	HYDROLOGIC GROUP
NEWFIELDS	444	(321)	B
PAXTON	66	(223)	C
WOODBRIDGE	29	(323)	C
RIDGEBURY	856	(423)	C
WET RIDGEBURY	656/P	(523)	C
WHITNUM	49/VP	(623H) (623)	D

SLOPE CLASS:
0-8% = B
8-15% = C
15-25% = D
25-50% = E
>50% = F

DRAINAGE CLASS:
/P = POORLY DRAINED SOIL
/VP = VERY POORLY DRAINED

APPROVAL BLOCK

APPROVED TOWN OF BARRINGTON PLANNING BOARD

CHAIRPERSON _____ DATE _____



PREPARED FOR:

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

ZONING REQUIREMENTS

ZONE: REGIONAL COMMERCIAL
CONSERVATION SUBDIVISION
MIN. PARENT PARCEL = 20.0 AC.
MIN. LOT SIZE = 20,000 SF
MIN. WIDTH = 75' @ FRONT SETBACK
MIN. PERIMETER BUFFER = 100'
MAX. HEIGHT = 35'

BUILDING SETBACKS:

FRONT 25'
SIDE & REAR 20'
WETLANDS 50'
LEACH FIELD SETBACKS
POORLY DRAINED SOILS 50'
VERY POORLY DRAINED SOILS 75'

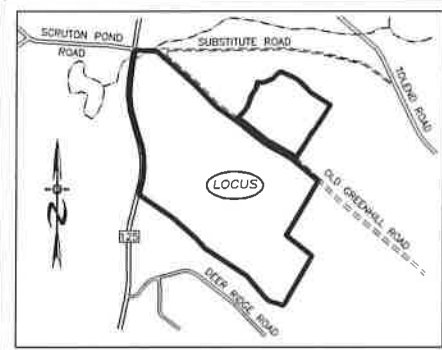
REVISIONS:	DATE:
OPEN SPACE SUBDIVISION	
PLAN FOR: RESIDENTIAL DEVELOPMENT RT. 125 / OLD GREEN HILL RD. BARRINGTON, NH	
DATE: JAN. 2019	SCALE: 1"=80'
PROJ. NO: NH-1144	SHEET NO. 1 OF 1

PREPARED FOR:
JOSEPH FALZONE
 7B EMERY LANE
 STRATHAM, N.H. 03885

BEALS ASSOCIATES PLLC
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 MIN. LOT SIZE = 20,000 SF
 MIN. WIDTH = 75' • FRONT SETBACK
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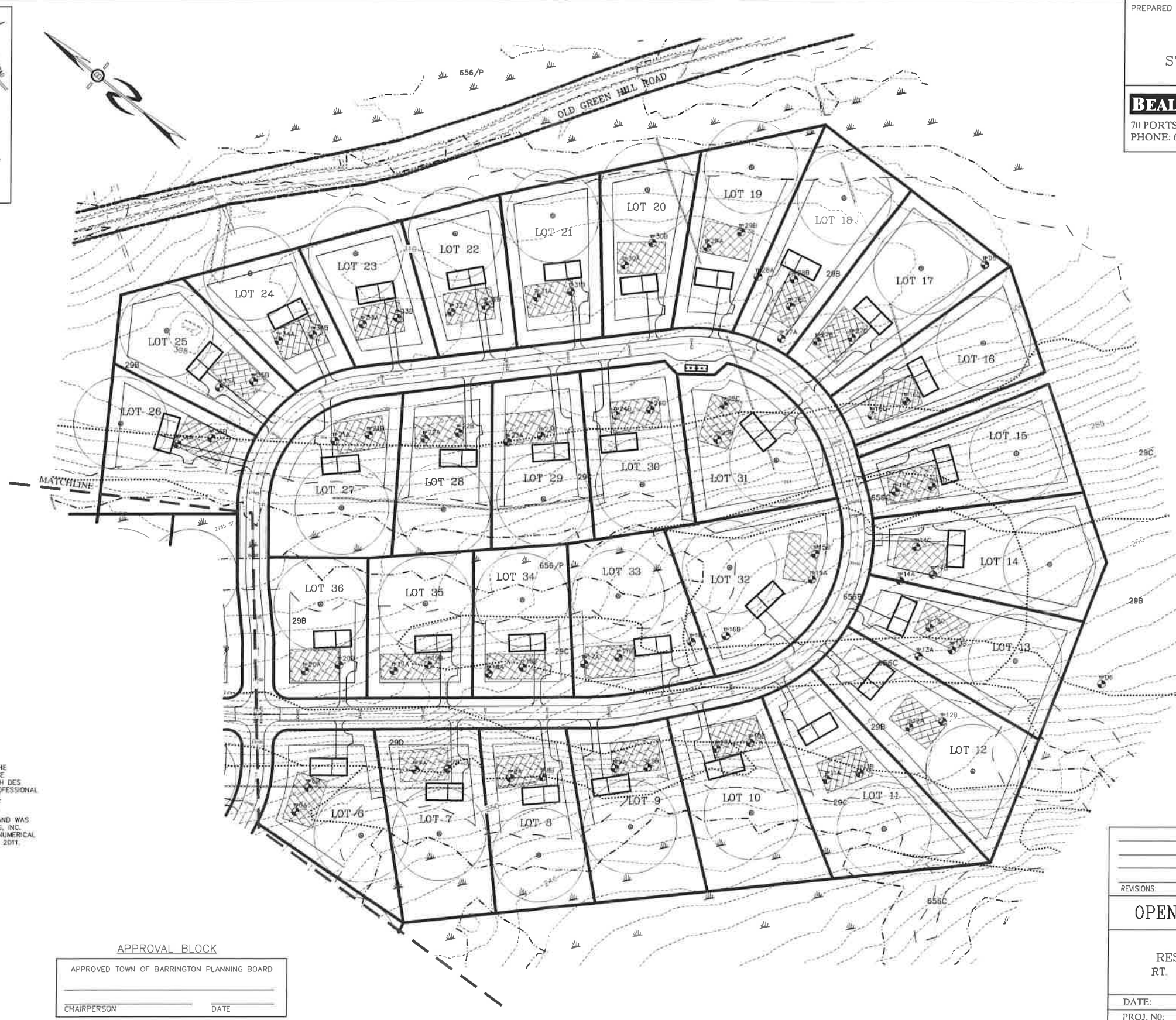
BUILDING SETBACKS:
 FRONT 25'
 SIDE & REAR 20'
 WETLANDS 50'
 LEACH FIELD SETBACKS
 POORLY DRAINED SOILS 50'
 VERY POORLY DRAINED SOILS 75'



LOCATION MAP
 1"=1500'

LEGEND

- UTILITY POLE
- TEST PIT W/ NO.
- STONE WALL
- TREE LINE
- EXISTING CONTOUR - 10'
- EXISTING CONTOUR - 2'
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- SOILS BOUNDARY LINE
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- PROP. WELL W/ 75' PROTECTIVE RAD.



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SOIL LEGEND:

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NEWFIELDS	444	(321)	B
PAXTON	66	(223)	C
WOODBRIIDGE	29	(323)	C
RIDGEBURY	656	(423)	C
WET RIDGEBURY	656/P	(423)	C
WHITNUM	49/VP	(623)	D

SLOPE CLASS:
 0-8% = B
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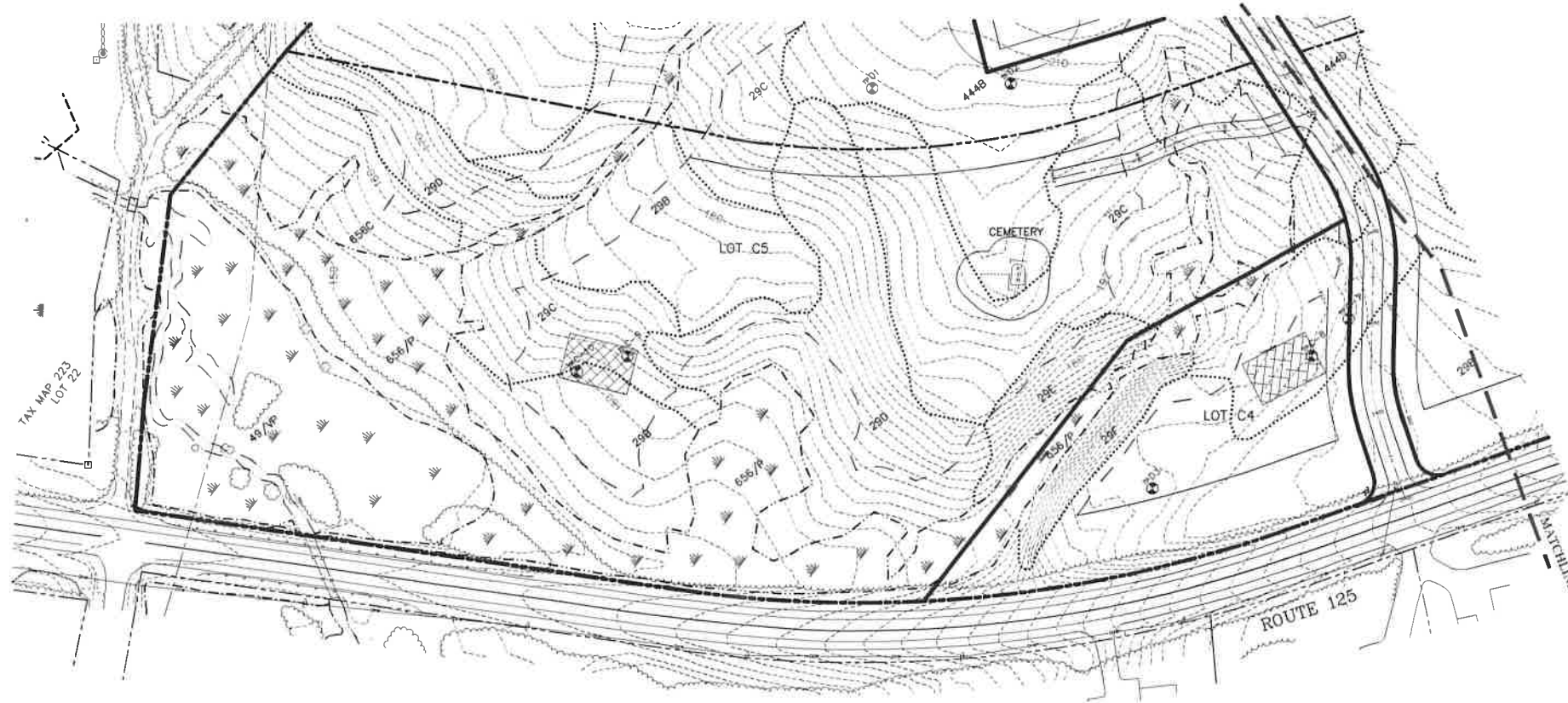
DRAINAGE CLASS:
 /P = POORLY DRAINED SOIL
 /VP = VERY POORLY DRAINED

APPROVAL BLOCK

APPROVED TOWN OF BARRINGTON PLANNING BOARD

CHAIRPERSON _____ DATE _____

REVISIONS:	DATE:
OPEN SPACE SUBDIVISION	
PLAN FOR: RESIDENTIAL DEVELOPMENT RT. 125 / OLD GREEN HILL RD, BARRINGTON, NH	
DATE: JAN. 2019	SCALE: 1"=111'
PROJ. NO: NH-1144	SHEET NO. 1 OF 1



PREPARED FOR:
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

ZONING REQUIREMENTS

ZONE: REGIONAL COMMERCIAL		
USE:	RESIDENTIAL	COMMERCIAL
MIN. LOT SIZE =	80,000 SF	40,000 SF
MIN. FRONTAGE =	200'	200'
MAX. HEIGHT =	35'	40'
BUILDING SETBACKS:		
FRONT	40'	75'
SIDE & REAR	30'	30'
POORLY DRAINED SOILS		50'
VERY POORLY DRAINED SOILS		100'
LEACH FIELD SETBACKS		
POORLY DRAINED SOILS		50'
VERY POORLY DRAINED SOILS		100'



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 /VP = VERY POORLY DRAINED

APPROVAL BLOCK

APPROVED TOWN OF BARRINGTON PLANNING BOARD	
CHAIRPERSON	DATE

REVISIONS:	DATE:

COMMERCIAL LOTS SITE PLAN

PLAN FOR:
 RESIDENTIAL DEVELOPMENT
 RT. 125 / OLD GREEN HILL RD.
 BARRINGTON, NH

DATE:	JAN 2019	SCALE:	1"=80'
PROJ. NO:	NH-1144	SHEET NO.	1 OF 1

AUTOMATIC TRAFFIC RECORDER COUNT DATA

Accurate Counts
978-664-2565

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

8188VOLI

Start Time	3/7/2019 Thu	SB		Hour Totals		NB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
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	731
01:00		1	117			9	110				
01:15		3	85			6	110				
01:30		5	108			1	123				
01:45		2	117	11	427	6	124	22	467	33	894
02:00		3	118			5	100				
02:15		5	119			1	128				
02:30		2	100			5	124				
02:45		4	127	14	464	3	172	14	524	28	988
03:00		9	113			3	171				
03:15		11	113			4	161				
03:30		10	139			13	201				
03:45		16	130	46	495	9	172	29	705	75	1200
04:00		19	138			16	217				
04:15		35	125			11	201				
04:30		34	126			7	189				
04:45		48	129	136	518	15	212	49	819	185	1337
05:00		61	104			16	227				
05:15		93	119			24	208				
05:30		98	96			22	180				
05:45		112	94	364	413	39	180	101	795	465	1208
06:00		139	100			41	133				
06:15		164	78			88	157				
06:30		198	87			95	113				
06:45		236	83	737	348	97	116	321	519	1058	867
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	458
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	380
09:00		110	39			111	51				
09:15		88	24			94	58				
09:30		122	27			85	36				
09:45		105	17	425	107	91	33	381	178	806	285
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	212
11:00		93	11			90	36				
11:15		106	12			107	16				
11:30		88	8			108	21				
11:45		96	5	383	36	109	14	414	87	797	123
Total		3921	3578			2606	5105			6527	8683
Percent		52.3%	47.7%			33.8%	66.2%			42.9%	57.1%

Accurate Counts
978-664-2565

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

8188VOL1

Start Time	3/8/2019 Fri	SB		Hour Totals		NB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	84			9	121				
12:15		10	100			11	115				
12:30		3	121			21	127				
12:45		3	115	21	420	7	120	48	483	69	903
01:00		1	97			8	140				
01:15		4	101			7	146				
01:30		5	138			7	163				
01:45		3	120	13	456	7	128	29	577	42	1033
02:00		5	127			3	129				
02:15		3	115			2	158				
02:30		4	142			6	171				
02:45		8	121	20	505	5	163	16	621	36	1126
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	1321
04:00		20	149			20	201				
04:15		27	146			13	228				
04:30		28	123			7	205				
04:45		36	101	111	519	16	205	56	839	167	1358
05:00		61	116			6	211				
05:15		79	120			29	206				
05:30		98	117			33	188				
05:45		104	95	342	448	39	180	107	785	449	1233
06:00		111	87			59	162				
06:15		176	87			59	156				
06:30		207	93			98	124				
06:45		189	79	683	346	103	111	319	553	1002	899
07:00		219	56			79	112				
07:15		214	57			109	80				
07:30		199	43			136	78				
07:45		232	53	864	209	139	61	463	331	1327	540
08:00		160	37			101	71				
08:15		157	36			114	58				
08:30		146	30			111	54				
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				
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%

MANUAL TURNING MOVEMENT COUNT DATA

Accurate Counts
978-664-2565

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 : 1

Groups Printed- Cars - Trucks

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	50	151	10	21	15	13	10	73	39	5	99	25	511
07:15 AM	24	165	8	48	43	23	7	89	50	15	119	21	612
07:30 AM	34	176	9	36	30	16	8	91	27	15	109	51	602
07:45 AM	28	166	10	30	19	8	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	8	32	34	12	9	76	33	18	63	53	498
08:15 AM	17	113	9	29	25	15	31	84	31	6	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	79	20	11	48	25	379
Total	81	444	40	100	102	64	66	319	115	49	218	174	1772
Grand Total	217	1102	77	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	97	97.6	80.6	97.2	96.5	98.1	97.9	98.3	95.3	96.2
Trucks	12	41	8	7	5	24	3	23	5	2	11	14	155
% Trucks	5.5	3.7	10.4	3	2.4	19.4	2.8	3.5	1.9	2.1	1.7	4.7	3.8

Accurate Counts

978-664-2565

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

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
07:00 AM	50	151	10	21	15	13	10	73	39	5	99	25
07:15 AM	24	165	8	48	43	23	7	89	50	15	119	21
07:30 AM	34	176	9	36	30	16	8	91	27	15	109	51
07:45 AM	28	166	10	30	19	8	15	93	31	12	98	30
Total Volume	136	658	37	135	107	60	40	346	147	47	425	127
% App. Total	16.4	79.2	4.5	44.7	35.4	19.9	7.5	64.9	27.6	7.8	71	21.2
PHF	.680	.935	.925	.703	.622	.652	.667	.930	.735	.913	.893	.623
Cars	129	635	31	131	103	52	37	330	145	46	419	126
% Cars	94.9	96.5	83.8	97.0	96.3	86.7	92.5	95.4	98.6	97.9	98.6	99.2
Trucks	7	23	6	4	4	8	3	16	2	1	6	1
% Trucks	5.1	3.5	16.2	3.0	3.7	13.3	7.5	4.6	1.4	2.1	1.4	0.8
App. Total												
Int. Total												

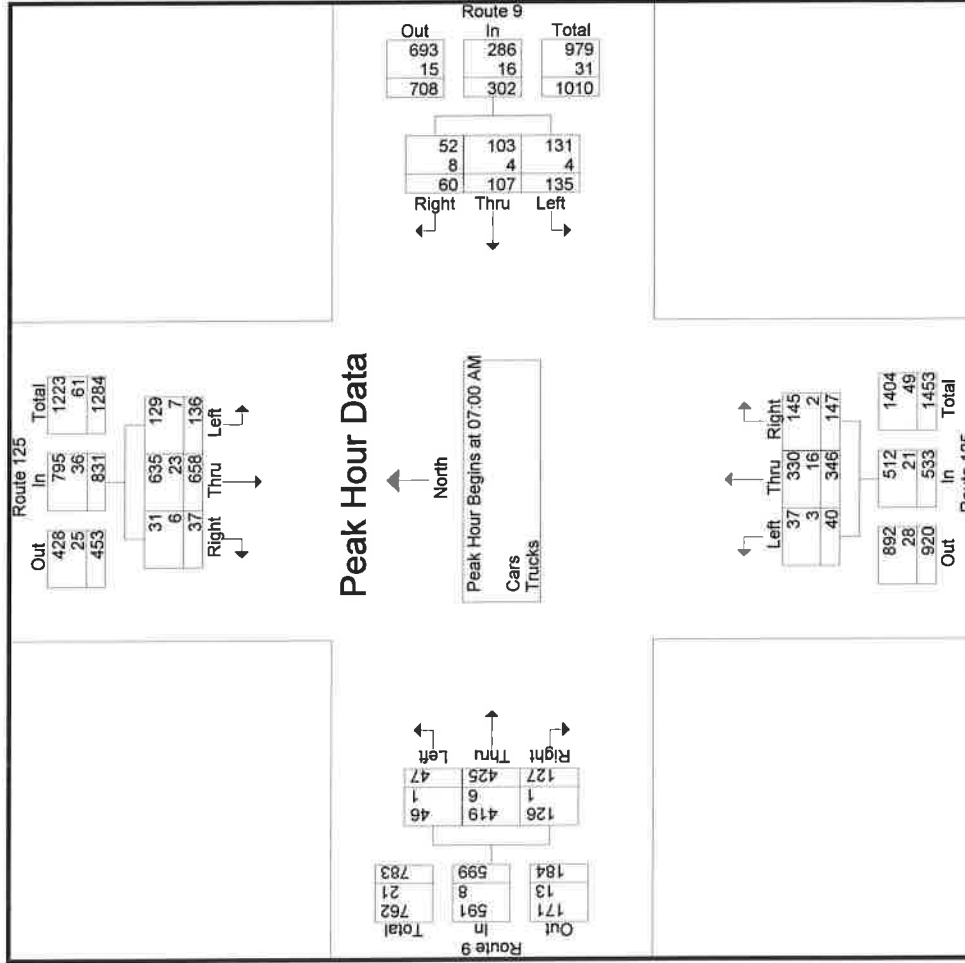
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

Accurate Counts
978-664-2565

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 : 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	07:30 AM	07:45 AM	08:00 AM	08:15 AM	08:30 AM	08:45 AM	Total
+0 mins.	50	151	10	211	43	23	114	10	733
+15 mins.	24	165	8	197	30	16	82	7	669
+30 mins.	34	176	9	219	19	8	57	8	662
+45 mins.	28	166	10	204	34	12	78	15	637
Total Volume	136	658	37	831	126	59	331	40	3466

Accurate Counts
978-664-2565

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

Start Time	Groups Printed- Cars												
	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	47	147	7	21	15	12	10	71	38	4	96	25	493
07:15 AM	23	158	8	45	40	21	6	84	50	15	117	21	588
07:30 AM	33	169	7	35	29	12	7	85	27	15	109	51	579
07:45 AM	26	161	9	30	19	7	14	90	30	12	97	29	524
Total	129	635	31	131	103	52	37	330	145	46	419	126	2184
08:00 AM	21	127	7	32	33	11	9	75	31	18	61	51	476
08:15 AM	16	108	8	28	25	11	31	82	31	6	47	56	449
08:30 AM	18	103	10	22	20	16	10	76	31	14	57	30	407
08:45 AM	21	88	13	15	23	10	16	79	19	10	48	24	366
Total	76	426	38	97	101	48	66	312	112	48	213	161	1698
Grand Total	205	1061	69	228	204	100	103	642	257	94	632	287	3882
Approch %	15.4	79.5	5.2	42.9	38.3	18.8	10.3	64.1	25.6	9.3	62.4	28.3	
Total %	5.3	27.3	1.8	5.9	5.3	2.6	2.7	16.5	6.6	2.4	16.3	7.4	

Accurate Counts
978-664-2565

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

Groups Printed- Trucks

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	3	4	3	0	0	1	0	2	1	1	3	0	18
07:15 AM	1	7	0	3	3	2	1	5	0	0	2	0	24
07:30 AM	1	7	2	1	1	4	1	6	0	0	0	0	23
07:45 AM	2	5	1	0	0	1	1	3	1	0	1	1	16
Total	7	23	6	4	4	8	3	16	2	1	6	1	81
08:00 AM	3	9	1	0	1	1	0	1	2	0	2	2	22
08:15 AM	1	5	1	1	0	4	0	2	0	0	2	6	22
08:30 AM	1	0	0	0	0	7	0	4	0	0	1	4	17
08:45 AM	0	4	0	2	0	4	0	0	1	1	0	1	13
Total	5	18	2	3	1	16	0	7	3	1	5	13	74
Grand Total	12	41	8	7	5	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	
Total %	7.7	26.5	5.2	4.5	3.2	15.5	1.9	14.8	3.2	1.3	7.1	9	

Accurate Counts
978-664-2565

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

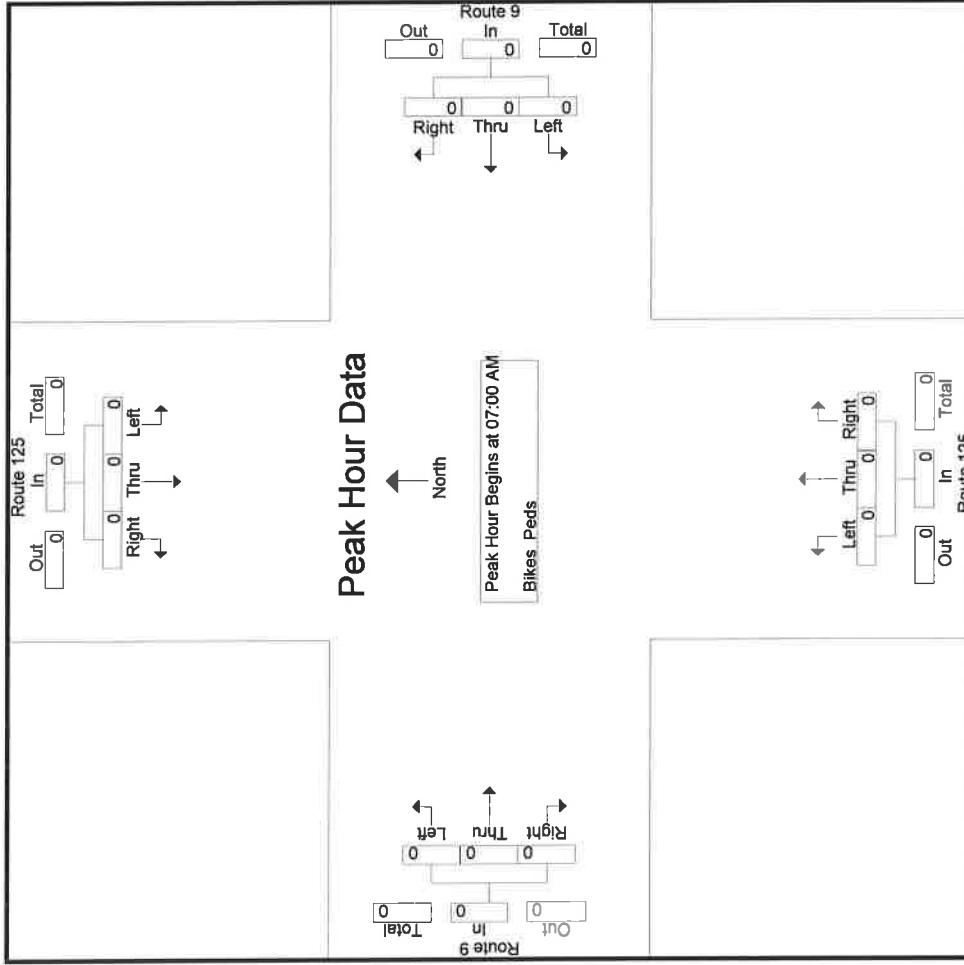
File Name : 81880001
Site Code : 81880001
Start Date : 3/7/2019
Page No : 13

Start Time	Groups Printed- Bikes Peds											
	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
07:00 AM	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
07:30 AM	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
Total	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	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
Total	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
Apprch %	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

Accurate Counts
978-664-2565

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 : 15



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

	07:00 AM			07:00 AM			07:00 AM			07:00 AM		
+0 mins.	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
+30 mins.	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
Total Volume	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: Route 9
City/State : Barrington, NH
Weather : Clear

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

Start Time	Groups Printed- Cars - Trucks												
	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	24	92	22	30	71	35	32	167	21	9	35	32	570
04:15 PM	19	105	13	35	80	29	30	139	31	20	30	21	552
04:30 PM	14	98	16	42	80	22	25	152	23	18	28	20	538
04:45 PM	15	99	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	9	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	700	127	321	636	200	268	1253	174	107	268	162	4354
Approch %	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	99.5	99.5	99.6	99.2	100	99.1	100	97.5	99.2
Trucks	2	14	0	1	3	1	1	10	0	1	0	4	37
% Trucks	1.4	2	0	0.3	0.5	0.5	0.4	0.8	0	0.9	0	2.5	0.8

Accurate Counts

978-664-2565

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

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		App. Total			
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	14	98	16	128	42	80	22	144	25	152	23	200	18	28	20	66	538
04:45 PM	15	99	20	134	54	92	28	174	36	182	20	238	19	31	13	63	609
05:00 PM	12	86	19	117	41	89	28	158	57	175	17	249	12	30	20	62	586
05:15 PM	20	80	18	118	54	92	18	164	28	170	20	218	12	35	24	71	571
Total Volume	61	363	73	497	191	353	96	640	146	679	80	905	61	124	77	262	2304
% App. Total	12.3	73	14.7		29.8	55.2	15		16.1	75	8.8		23.3	47.3	29.4		
PHF	.763	.917	.913	.927	.884	.959	.857	.920	.640	.933	.870	.909	.803	.886	.802	.923	.946
Cars	61	360	73	494	190	352	95	637	146	677	80	903	61	124	77	262	2296
% Cars	100	99.2	100	99.4	99.5	99.7	99.0	99.5	100	99.7	100	99.8	100	100	100	100	99.7
Trucks	0	3	0	3	1	1	1	3	0	2	0	2	0	0	0	0	8
% Trucks	0	0.8	0	0.6	0.5	0.3	1.0	0.5	0	0.3	0	0.2	0	0	0	0	0.3

Accurate Counts

978-664-2565

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

Groups Printed- Cars

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	23	87	22	30	69	35	32	166	21	9	35	28	557
04:15 PM	19	102	13	35	80	29	29	134	31	20	30	21	543
04:30 PM	14	97	16	41	80	21	25	150	23	18	28	20	533
04:45 PM	15	98	20	54	91	28	36	182	20	19	31	13	607
Total	71	384	71	160	320	113	122	632	95	66	124	82	2240
05:00 PM	12	85	19	41	89	28	57	175	17	12	30	20	585
05:15 PM	20	80	18	54	92	18	28	170	20	12	35	24	571
05:30 PM	20	70	9	37	65	22	33	138	20	9	41	16	480
05:45 PM	13	67	10	28	67	18	27	128	22	7	38	16	441
Total	65	302	56	160	313	86	145	611	79	40	144	76	2077
Grand Total	136	686	127	320	633	199	267	1243	174	106	268	158	4317
Apprch %	14.3	72.3	13.4	27.8	54.9	17.3	15.9	73.8	10.3	19.9	50.4	29.7	
Total %	3.2	15.9	2.9	7.4	14.7	4.6	6.2	28.8	4	2.5	6.2	3.7	

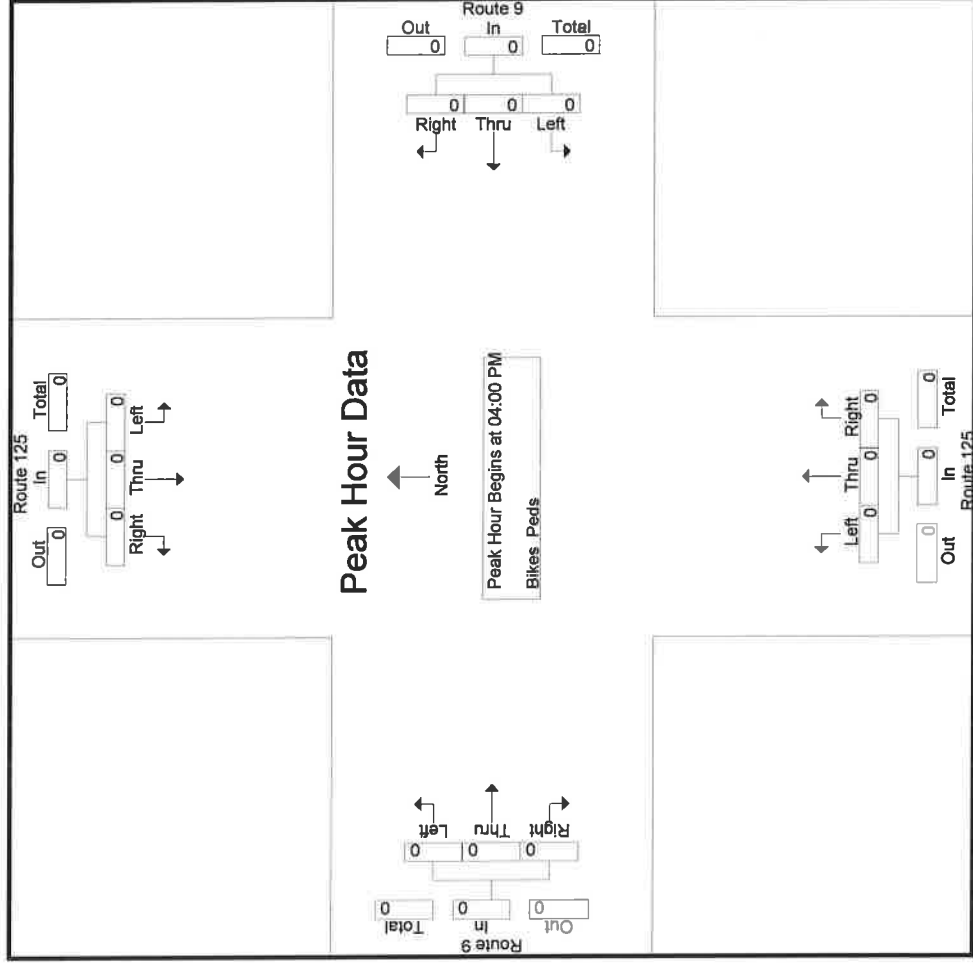
Accurate Counts
978-664-2565

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

Groups Printed- Trucks

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	1	5	0	0	2	0	0	1	0	0	0	4	13
04:15 PM	0	3	0	0	0	0	1	5	0	0	0	0	9
04:30 PM	0	1	0	1	0	1	0	2	0	0	0	0	5
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
Total	1	10	0	1	3	1	1	8	0	0	0	4	29
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	2	0	0	0	0	0	1	0	1	0	0	5
05:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	1	4	0	0	0	0	0	2	0	1	0	0	8
Grand Total	2	14	0	1	3	1	1	10	0	1	0	4	37
Approch %	12.5	87.5	0	20	60	20	9.1	90.9	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	



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			04:00 PM			04:00 PM			04:00 PM		
+0 mins.	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
+30 mins.	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
Total Volume	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: Route 9
City/State : Barrington, NH
Weather : Clear

File Name : 818800S1
Site Code : 81880001
Start Date : 3/9/2019
Page No : 1

Start Time	Groups Printed- Cars - Trucks												
	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	12	69	20	24	42	14	27	96	16	19	52	14	405
11:15 AM	10	103	15	17	33	18	27	90	20	20	37	28	418
11:30 AM	27	130	34	23	38	17	20	86	28	20	53	36	512
11:45 AM	16	103	20	28	39	26	24	88	23	21	54	27	469
Total	65	405	89	92	152	75	98	360	87	80	196	105	1804
12:00 PM	20	109	18	27	34	16	14	83	13	19	35	32	420
12:15 PM	16	93	22	32	38	18	26	93	16	24	44	23	445
12:30 PM	10	88	18	25	39	26	22	87	22	19	32	26	414
12:45 PM	19	92	23	15	36	17	15	97	14	19	43	33	423
Total	65	382	81	99	147	77	77	360	65	81	154	114	1702
01:00 PM	16	72	15	22	35	18	19	103	27	18	40	22	407
01:15 PM	15	79	15	27	41	23	24	88	16	23	45	26	422
01:30 PM	12	82	17	20	44	19	18	75	17	16	29	23	372
01:45 PM	16	90	15	25	28	20	24	101	8	17	24	27	395
Total	59	323	62	94	148	80	85	367	68	74	138	98	1596
Grand Total	189	1110	232	285	447	232	260	1087	220	235	488	317	5102
Approch %	12.3	72.5	15.2	29.6	46.4	24.1	16.6	69.4	14	22.6	46.9	30.5	
Total %	3.7	21.8	4.5	5.6	8.8	4.5	5.1	21.3	4.3	4.6	9.6	6.2	
Cars	189	1101	232	285	446	232	260	1078	220	235	488	317	5083
% Cars	100	99.2	100	100	99.8	100	100	99.2	100	100	100	100	99.6
Trucks	0	9	0	0	1	0	0	9	0	0	0	0	19
% Trucks	0	0.8	0	0	0.2	0	0	0.8	0	0	0	0	0.4

Accurate Counts

978-664-2565

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

File Name : 818800S1
 Site Code : 81880001
 Start Date : 3/9/2019
 Page No : 2

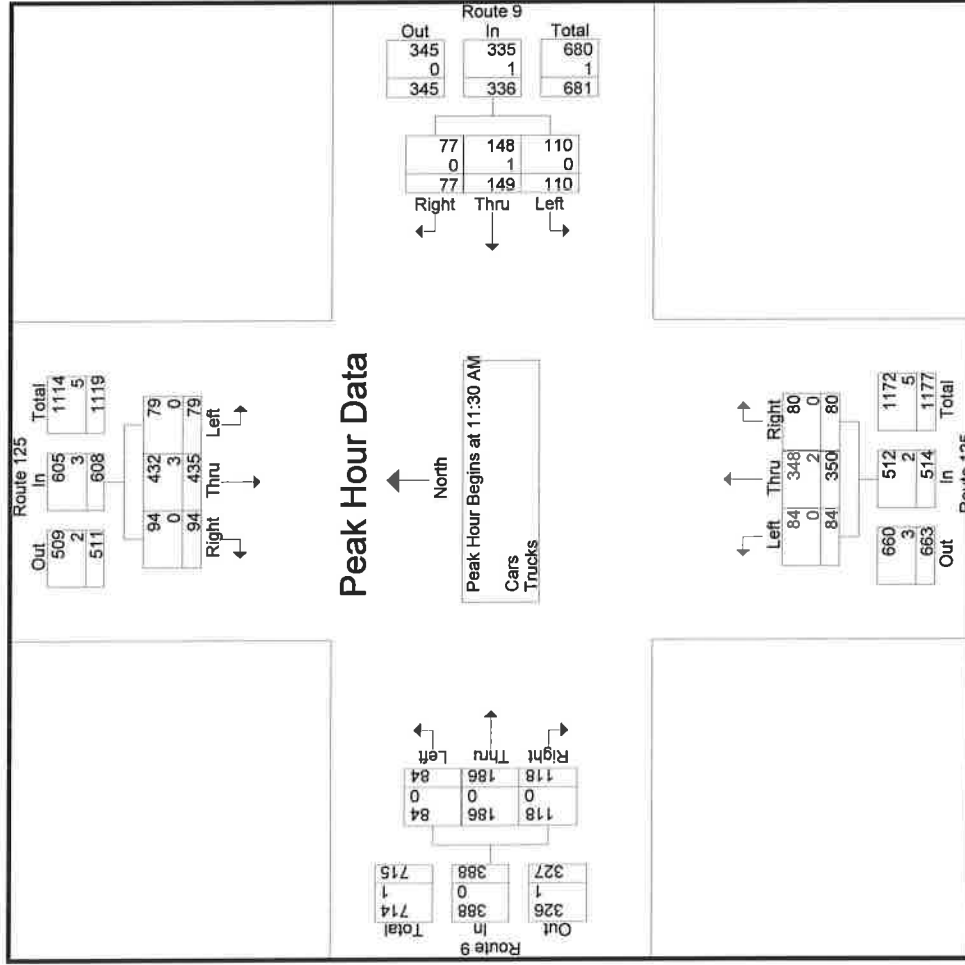
Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West							
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right					
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:30 AM																	
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	54	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	77	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	77	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	3	0	3	0	1	0	1	0	2	0	2	0	0	0	0	6
% Trucks	0	0.7	0	0.5	0	0.7	0	0.3	0	0.6	0	0.4	0	0	0	0	0.3

Accurate Counts

978-664-2565

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

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:

	11:30 AM			11:45 AM			11:00 AM			11:30 AM				
+0 mins.	27	130	34	28	39	26	93	27	96	16	139	20	53	109
+15 mins.	16	103	20	27	34	16	77	27	90	20	137	21	54	102
+30 mins.	20	109	18	32	38	18	88	20	86	28	134	19	35	86
+45 mins.	16	93	22	25	39	26	90	24	88	23	135	24	44	91
Total Volume	79	435	94	112	150	86	348	98	360	87	545	84	186	388
% App. Total	13	71.5	15.5	32.2	43.1	24.7	66.1	18	66.1	16	77.7	21.6	47.9	30.4
PHF	.731	.837	.691	.875	.962	.827	.935	.907	.938	.777	.980	.875	.861	.890

Accurate Counts
978-664-2565

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

File Name : 818800S1
Site Code : 81880001
Start Date : 3/9/2019
Page No : 5

Groups Printed- Cars

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	12	67	20	24	42	14	27	96	16	19	52	14	403
11:15 AM	10	100	15	17	33	18	27	89	20	20	37	28	414
11:30 AM	27	130	34	23	38	17	20	86	28	20	53	36	512
11:45 AM	16	103	20	28	38	26	24	88	23	21	54	27	468
Total	65	400	89	92	151	75	98	359	87	80	196	105	1797
12:00 PM	20	107	18	27	34	16	14	82	13	19	35	32	417
12:15 PM	16	92	22	32	38	18	26	92	16	24	44	23	443
12:30 PM	10	88	18	25	39	26	22	87	22	19	32	26	414
12:45 PM	19	92	23	15	36	17	15	96	14	19	43	33	422
Total	65	379	81	99	147	77	77	357	65	81	154	114	1696
01:00 PM	16	72	15	22	35	18	19	101	27	18	40	22	405
01:15 PM	15	79	15	27	41	23	24	87	16	23	45	26	421
01:30 PM	12	82	17	20	44	19	18	75	17	16	29	23	372
01:45 PM	16	89	15	25	28	20	24	99	8	17	24	27	392
Total	59	322	62	94	148	80	85	362	68	74	138	98	1590
Grand Total	189	1101	232	285	446	232	260	1078	220	235	488	317	5083
Approch %	12.4	72.3	15.2	29.6	46.3	24.1	16.7	69.2	14.1	22.6	46.9	30.5	
Total %	3.7	21.7	4.6	5.6	8.8	4.6	5.1	21.2	4.3	4.6	9.6	6.2	

Accurate Counts
978-664-2565

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

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

Groups Printed- Trucks

Start Time	Route 125 From North			Route 9 From East			Route 125 From South			Route 9 From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
11:15 AM	0	3	0	0	0	0	0	1	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	5	0	0	1	0	0	1	0	0	0	0	7
12:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
12:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	3	0	0	0	0	0	3	0	0	0	0	6
01:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
Total	0	1	0	0	0	0	0	5	0	0	0	0	6
Grand Total	0	9	0	0	1	0	0	9	0	0	0	0	19
Approch %	0	100	0	0	100	0	0	100	0	0	0	0	0
Total %	0	47.4	0	0	5.3	0	0	47.4	0	0	0	0	0

Accurate Counts
978-664-2565

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

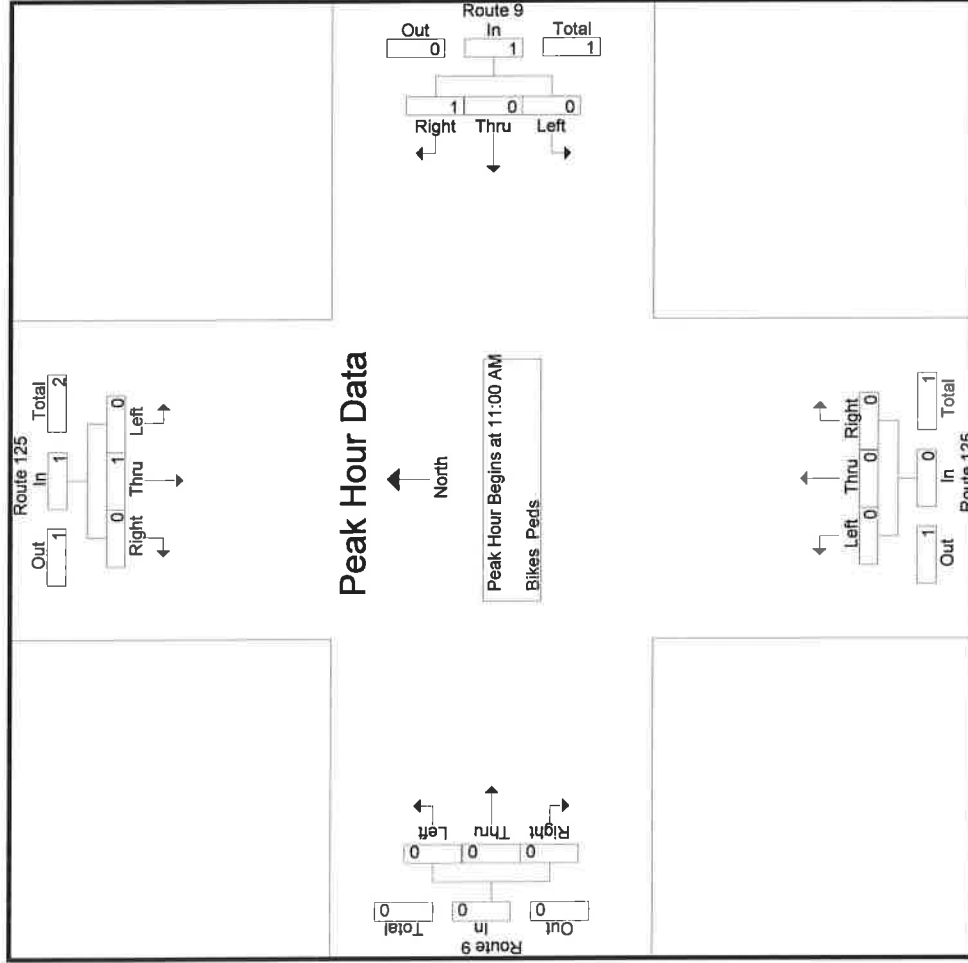
File Name : 818800S1
Site Code : 81880001
Start Date : 3/9/2019
Page No : 13

Start Time	Route 125												Route 9							
	From North						From East						From South			From West				
	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	0	0
11:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
11:30 AM	0	0	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	0	0
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
12:00 PM	0	0	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	0	0
12:30 PM	0	0	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	0	0
Total	0	0	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	0	0
01:15 PM	0	0	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	0	0
01:45 PM	0	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	0
Grand Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
Apprch %	0	100	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	50	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	100	100

Accurate Counts
978-664-2565

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

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		11:00 AM	
+0 mins.	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	0	0	1	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	0	0	0
% App. Total	0	100	0	0	100	0	0	0	0	0
PHF	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000

Accurate Counts
978-664-2565

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

File Name : 81880002
Site Code : 81880002
Start Date : 3/7/2019
Page No : 1

Start Time	Groups Printed- Cars - Trucks														
	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total		
07:00 AM	0	203	2	0	0	0	0	0	0	0	0	8	0	8	313
07:15 AM	0	221	2	0	0	0	1	117	0	13	0	9	0	9	363
07:30 AM	0	211	5	0	0	0	1	98	0	9	0	5	0	5	329
07:45 AM	0	194	0	0	0	0	2	124	0	14	0	7	0	7	341
Total	0	829	9	0	0	0	4	431	0	44	0	29	0	29	1346
08:00 AM	0	159	4	0	0	0	1	92	0	10	0	4	0	4	270
08:15 AM	0	155	1	0	0	0	1	97	0	4	0	5	0	5	263
08:30 AM	0	127	7	0	0	0	0	115	0	12	0	2	0	2	263
08:45 AM	0	110	7	0	0	0	1	96	0	7	0	2	0	2	223
Total	0	551	19	0	0	0	3	400	0	33	0	13	0	13	1019
Grand Total	0	1380	28	0	0	0	7	831	0	77	0	42	0	42	2365
Approch %	0	98	2	0	0	0	0.8	99.2	0	64.7	0	35.3	0	35.3	
Total %	0	58.4	1.2	0	0	0	0.3	35.1	0	3.3	0	1.8	0	1.8	
Cars	0	1317	28	0	0	0	7	776	0	77	0	42	0	42	2247
% Cars	0	95.4	100	0	0	0	100	93.4	0	100	0	100	0	100	95
Trucks	0	63	0	0	0	0	0	55	0	0	0	0	0	0	118
% Trucks	0	4.6	0	0	0	0	0	6.6	0	0	0	0	0	0	5

Accurate Counts

978-664-2565

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

File Name : 81880002
 Site Code : 81880002
 Start Date : 3/7/2019
 Page No : 2

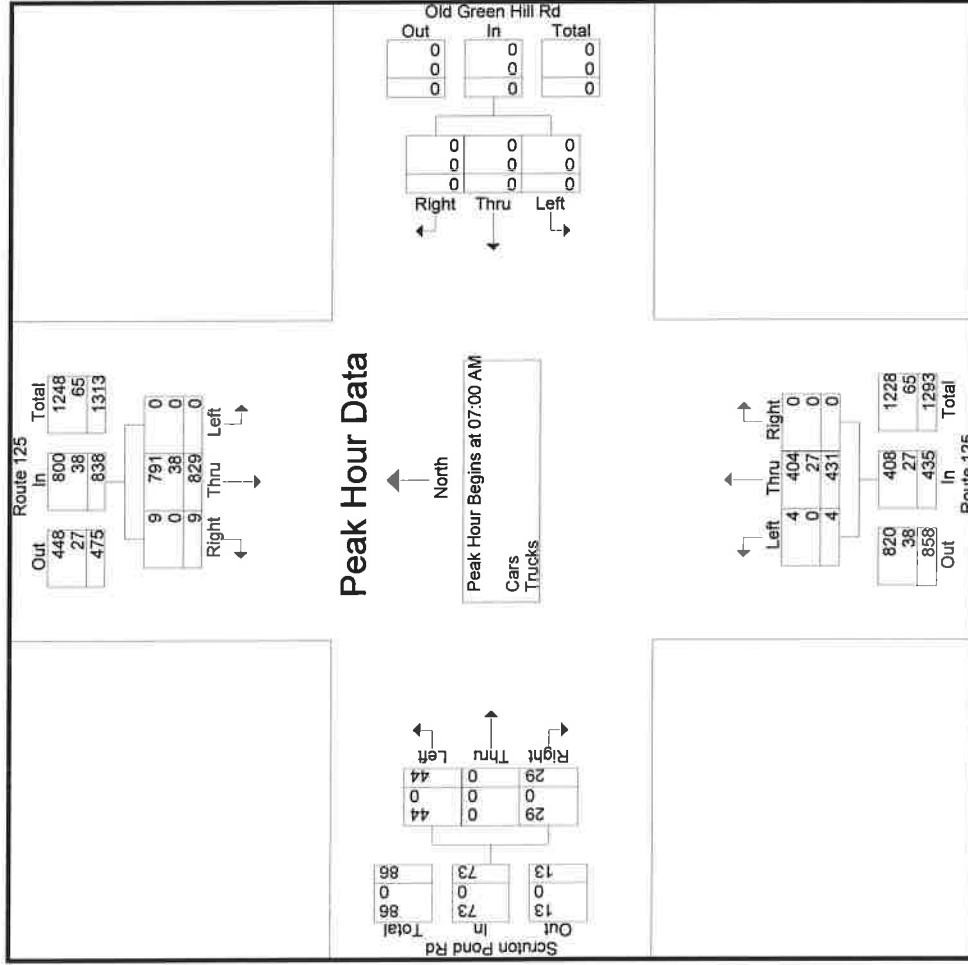
Start Time	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			Int. Total		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 07:00 AM															
07:00 AM	0	203	2	0	0	0	0	0	0	0	92	0	8	16	313
07:15 AM	0	221	2	0	0	0	0	1	117	0	118	0	13	22	363
07:30 AM	0	211	5	0	0	0	0	1	98	0	99	0	9	14	329
07:45 AM	0	194	0	0	0	0	0	2	124	0	126	0	14	21	341
Total Volume	0	829	9	0	0	0	0	4	431	0	435	0	44	29	1346
% App. Total	0	98.9	1.1	0	0	0	0	0.9	99.1	0	60.3	0	39.7	73	
PHF	.000	.938	.450	.000	.000	.000	.000	.500	.869	.000	.863	.000	.806	.830	.927
Cars	0	791	9	0	0	0	0	4	404	0	408	0	29	73	1281
% Cars	0	95.4	100	0	0	0	0	100	93.7	0	93.8	0	100	100	95.2
Trucks	0	38	0	0	0	0	0	0	27	0	27	0	0	0	65
% Trucks	0	4.6	0	0	0	0	0	0	6.3	0	6.2	0	0	0	4.8

Accurate Counts

978-664-2565

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

File Name : 81880002
 Site Code : 81880002
 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	07:30 AM	07:45 AM	08:00 AM	08:15 AM	08:30 AM	08:45 AM
+0 mins.	0	203	2	205	0	0	0	16
+15 mins.	0	221	2	223	0	0	0	22
+30 mins.	0	211	5	216	0	0	0	14
+45 mins.	0	194	0	194	0	0	0	21
Total Volume	0	829	9	838	0	0	0	73

Accurate Counts

978-664-2565

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

File Name : 81880002
 Site Code : 81880002
 Start Date : 3/7/2019
 Page No : 5

Groups Printed- Cars

Start Time	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	191	2	0	0	0	0	89	0	8	0	8	298
07:15 AM	0	212	2	0	0	0	1	108	0	13	0	9	345
07:30 AM	0	202	5	0	0	0	1	89	0	9	0	5	311
07:45 AM	0	186	0	0	0	0	2	118	0	14	0	7	327
Total	0	791	9	0	0	0	4	404	0	44	0	29	1281
08:00 AM	0	147	4	0	0	0	1	89	0	10	0	4	255
08:15 AM	0	151	1	0	0	0	1	92	0	4	0	5	254
08:30 AM	0	123	7	0	0	0	0	104	0	12	0	2	248
08:45 AM	0	105	7	0	0	0	1	87	0	7	0	2	209
Total	0	526	19	0	0	0	3	372	0	33	0	13	966
Grand Total	0	1317	28	0	0	0	7	776	0	77	0	42	2247
Apprch %	0	97.9	2.1	0	0	0	0.9	99.1	0	64.7	0	35.3	
Total %	0	58.6	1.2	0	0	0	0.3	34.5	0	3.4	0	1.9	

Accurate Counts

978-664-2565

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

File Name : 81880002
 Site Code : 81880002
 Start Date : 3/7/2019
 Page No : 9

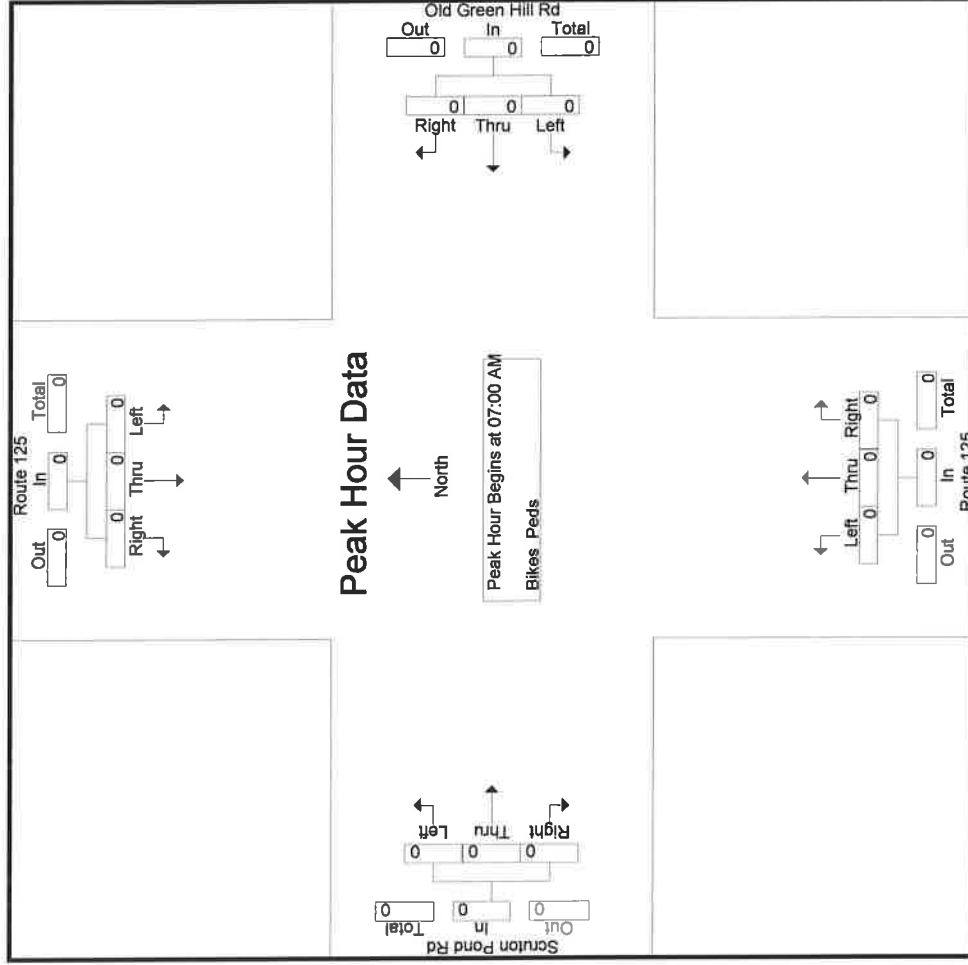
Groups Printed - Trucks

Start Time	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	12	0	0	0	0	0	3	0	0	0	0	15
07:15 AM	0	9	0	0	0	0	0	9	0	0	0	0	18
07:30 AM	0	9	0	0	0	0	0	9	0	0	0	0	18
07:45 AM	0	8	0	0	0	0	0	6	0	0	0	0	14
Total	0	38	0	0	0	0	0	27	0	0	0	0	65
08:00 AM	0	12	0	0	0	0	0	3	0	0	0	0	15
08:15 AM	0	4	0	0	0	0	0	5	0	0	0	0	9
08:30 AM	0	4	0	0	0	0	0	11	0	0	0	0	15
08:45 AM	0	5	0	0	0	0	0	9	0	0	0	0	14
Total	0	25	0	0	0	0	0	28	0	0	0	0	53
Grand Total	0	63	0	0	0	0	0	55	0	0	0	0	118
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	53.4	0	0	0	0	0	46.6	0	0	0	0	

Accurate Counts
978-664-2565

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

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



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

	07:00 AM			07:00 AM			07:00 AM			07:00 AM		
+0 mins.	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
+30 mins.	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
Total Volume	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: Scruton Pond Road
City/State : Barrington, NH
Weather : Clear

File Name : 81880002
Site Code : 81880002
Start Date : 3/7/2019
Page No : 1

Start Time	Groups Printed- Cars - Trucks												
	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	144	10	0	0	0	5	211	0	1	0	4	375
04:15 PM	0	119	7	0	0	0	2	181	0	1	0	2	312
04:30 PM	0	120	18	0	0	0	4	180	0	4	0	1	327
04:45 PM	0	122	12	0	0	0	3	216	0	1	0	2	356
Total	0	505	47	0	0	0	14	788	0	7	0	9	1370
05:00 PM	0	107	10	0	0	0	2	225	0	9	0	2	355
05:15 PM	0	116	10	0	0	0	4	198	0	4	0	2	334
05:30 PM	0	88	8	0	0	0	6	170	0	3	0	6	281
05:45 PM	0	88	9	0	0	0	4	166	0	3	0	5	275
Total	0	399	37	0	0	0	16	759	0	19	0	15	1245
Grand Total	0	904	84	0	0	0	30	1547	0	26	0	24	2615
Apprch %	0	91.5	8.5	0	0	0	1.9	98.1	0	52	0	48	
Total %	0	34.6	3.2	0	0	0	1.1	59.2	0	1	0	0.9	
Cars	0	888	84	0	0	0	30	1535	0	26	0	24	2587
% Cars	0	98.2	100	0	0	0	100	99.2	0	100	0	100	98.9
Trucks	0	16	0	0	0	0	0	12	0	0	0	0	28
% Trucks	0	1.8	0	0	0	0	0	0.8	0	0	0	0	1.1

Accurate Counts

978-664-2565

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

File Name : 81880002
 Site Code : 81880002
 Start Date : 3/7/2019
 Page No : 2

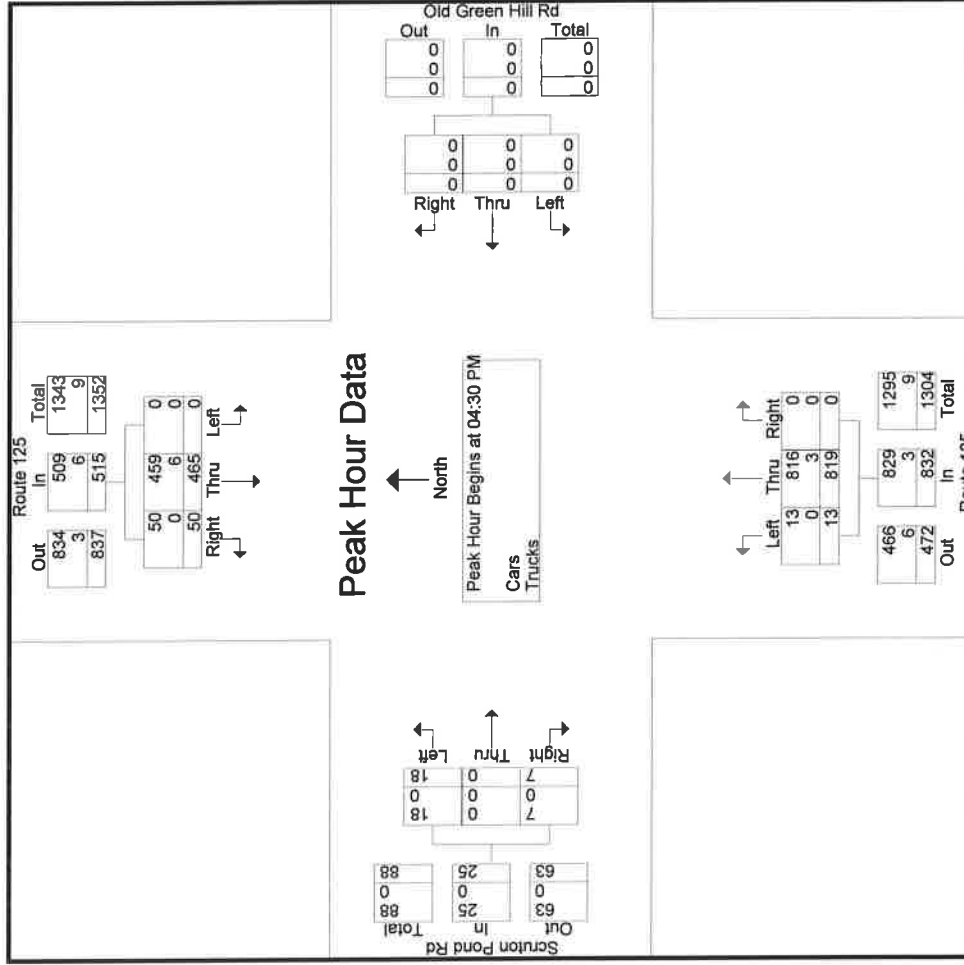
Start Time	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			Int. Total										
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		App. Total	App. Total	App. Total	App. Total						
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																							
Peak Hour for Entire Intersection Begins at 04:30 PM																							
04:30 PM	0	120	18	0	0	0	0	0	0	0	0	0	0	4	180	0	184	4	0	0	1	5	327
04:45 PM	0	122	12	0	0	0	0	0	0	0	0	0	0	3	216	0	219	1	0	0	2	3	356
05:00 PM	0	107	10	0	0	0	0	0	0	0	0	0	0	2	225	0	227	9	0	0	2	11	355
05:15 PM	0	116	10	0	0	0	0	0	0	0	0	0	0	4	198	0	202	4	0	0	2	6	334
Total Volume	0	465	50	0	0	0	0	0	0	0	0	0	0	13	819	0	832	18	0	0	7	25	1372
% App. Total	0	90.3	9.7	0	0	0	0	0	0	0	0	0	0	1.6	98.4	0	99.6	72	0	0	28	25	1372
PHF	.000	.953	.694	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.813	.910	.000	.916	.500	.000	.000	.875	.568	.963
Cars	0	459	50	0	0	0	0	0	0	0	0	0	0	13	816	0	829	18	0	0	7	25	1363
% Cars	0	98.7	100	0	0	0	0	0	0	0	0	0	0	100	99.6	0	99.6	100	0	0	100	100	99.3
Trucks	0	6	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	9
% Trucks	0	1.3	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0	0.7

Accurate Counts

978-864-2565

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

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



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			04:30 PM			05:00 PM								
+0 mins.	0	144	10	154	0	0	0	0	0	0	0	15	0	0	11
+15 mins.	0	119	7	126	0	0	0	0	0	0	0	2	0	0	6
+30 mins.	0	120	18	138	0	0	0	0	0	0	0	6	0	0	9
+45 mins.	0	122	12	134	0	0	0	0	0	0	0	5	0	0	8
Total Volume	0	505	47	552	0	0	0	0	0	13	819	0	19	0	34

Accurate Counts
978-664-2565

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

File Name : 81880002
Site Code : 81880002
Start Date : 3/7/2019
Page No : 5

Start Time	Groups Printed- Cars												
	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	138	10	0	0	0	5	210	0	1	0	4	368
04:15 PM	0	117	7	0	0	0	2	176	0	1	0	2	305
04:30 PM	0	119	18	0	0	0	4	178	0	4	0	1	324
04:45 PM	0	121	12	0	0	0	3	215	0	1	0	2	354
Total	0	495	47	0	0	0	14	779	0	7	0	9	1351
05:00 PM	0	106	10	0	0	0	2	225	0	9	0	2	354
05:15 PM	0	113	10	0	0	0	4	198	0	4	0	2	331
05:30 PM	0	86	8	0	0	0	6	168	0	3	0	6	277
05:45 PM	0	88	9	0	0	0	4	165	0	3	0	5	274
Total	0	393	37	0	0	0	16	756	0	19	0	15	1236
Grand Total	0	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	1	0	0.9	

Accurate Counts
978-664-2565

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

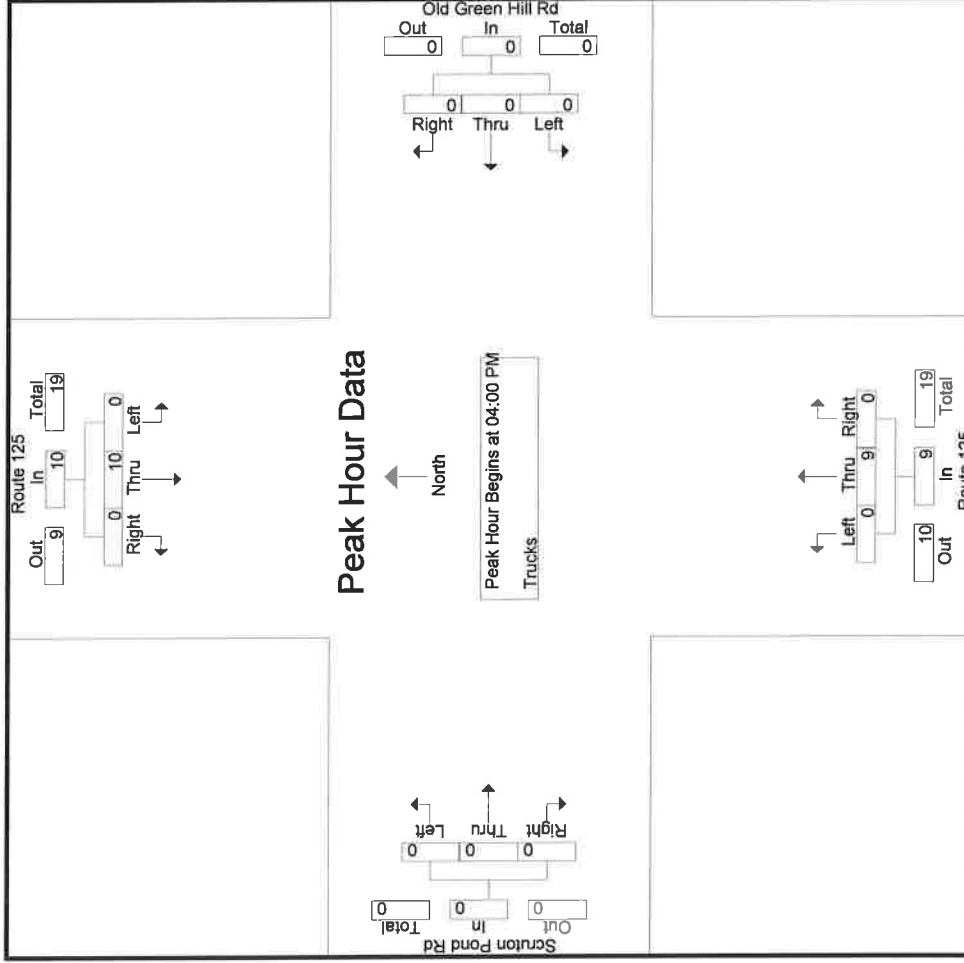
File Name : 81880002
Site Code : 81880002
Start Date : 3/7/2019
Page No : 9

Start Time	Groups Printed- Trucks												
	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	6	0	0	0	0	0	0	0	0	0	0	7
04:15 PM	0	2	0	0	0	0	0	5	0	0	0	0	7
04:30 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
04:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	10	0	0	0	0	0	9	0	0	0	0	19
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	2	0	0	0	0	0	2	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	6	0	0	0	0	0	3	0	0	0	0	9
Grand Total	0	16	0	0	0	0	0	12	0	0	0	0	28
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	57.1	0	0	0	0	0	42.9	0	0	0	0	

Accurate Counts
978-664-2565

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

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:

	04:00 PM			04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	6	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	2	0	0	0	0	0	0	5	0	0	0
+30 mins.	0	1	0	0	0	0	0	0	2	0	0	0
+45 mins.	0	1	0	0	0	0	0	0	1	0	0	0
Total Volume	0	10	0	0	0	0	0	0	9	0	0	0

Accurate Counts
978-664-2565

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

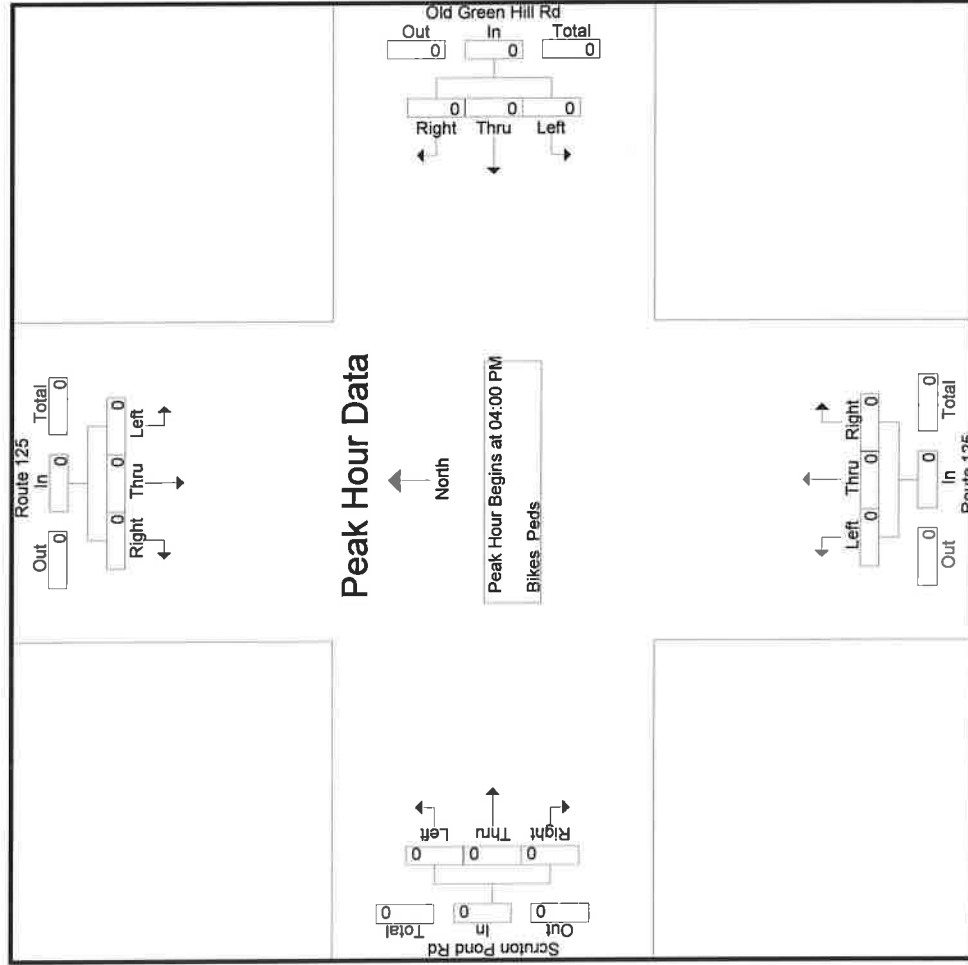
File Name : 81880002
Site Code : 81880002
Start Date : 3/7/2019
Page No : 13

Start Time	Groups Printed- Bikes Peds														
	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
04:00 PM	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
04:30 PM	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
Total	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	0
05:15 PM	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
05:45 PM	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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %															

Accurate Counts
978-664-2565

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

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			04:00 PM			04:00 PM			04:00 PM		
+0 mins.	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
+30 mins.	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
Total Volume	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: Scruton Pond Road
 City/State : Barrington, NH
 Weather : Clear

File Name : 818800S2
 Site Code : 81880002
 Start Date : 3/9/2019
 Page No : 1

Start Time	Groups Printed- Cars - Trucks												
	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			
	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	11	0	5	272
11:15 AM	0	134	6	0	0	0	3	124	0	15	0	3	285
11:30 AM	0	166	4	0	0	0	4	111	0	6	0	1	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	11	1137
12:00 PM	0	124	10	0	0	0	2	111	0	6	0	4	257
12:15 PM	0	122	6	0	0	0	1	123	0	9	0	6	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	3	275
Total	0	464	33	0	0	0	9	506	0	34	0	17	1063
01:00 PM	0	116	8	0	0	0	3	126	0	8	0	5	266
01:15 PM	0	103	11	0	0	0	3	118	0	5	0	2	242
01:30 PM	0	125	4	0	0	0	5	116	0	5	0	3	258
01:45 PM	0	109	8	0	0	0	1	123	0	3	0	2	246
Total	0	453	31	0	0	0	12	483	0	21	0	12	1012
Grand Total	0	1465	96	0	0	0	35	1479	0	97	0	40	3212
Approch %	0	93.9	6.1	0	0	0	2.3	97.7	0	70.8	0	29.2	
Total %	0	45.6	3	0	0	0	1.1	46	0	3	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	9	0	0	0	0	0	9	0	0	0	0	18
% Trucks	0	0.6	0	0	0	0	0	0.6	0	0	0	0	0.6

Accurate Counts
978-664-2565

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

File Name : 818800S2
Site Code : 81880002
Start Date : 3/9/2019
Page No : 5

Start Time	Route 125 From North						Old Green Hill Rd From East						Route 125 From South						Scruton Pond Rd From West							
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Int. Total	
11:00 AM	0	104	0	0	0	12	0	0	0	0	0	5	131	0	0	0	11	0	5	11	0	0	5	268		
11:15 AM	0	132	0	0	0	6	0	0	0	0	0	3	123	0	0	0	15	0	3	15	0	0	3	282		
11:30 AM	0	166	0	0	0	4	0	0	0	0	0	4	111	0	0	0	6	0	1	6	0	0	1	292		
11:45 AM	0	139	0	0	0	10	0	0	0	0	0	2	123	0	0	0	10	0	2	10	0	0	2	286		
Total	0	541	0	0	0	32	0	0	0	0	0	14	488	0	0	0	42	0	11	42	0	0	11	1128		
12:00 PM	0	124	0	0	0	10	0	0	0	0	0	2	111	0	0	0	6	0	4	6	0	0	4	257		
12:15 PM	0	120	0	0	0	6	0	0	0	0	0	1	122	0	0	0	9	0	6	9	0	0	6	264		
12:30 PM	0	112	0	0	0	7	0	0	0	0	0	2	132	0	0	0	7	0	4	7	0	0	4	264		
12:45 PM	0	106	0	0	0	10	0	0	0	0	0	4	140	0	0	0	12	0	3	12	0	0	3	275		
Total	0	462	0	0	0	33	0	0	0	0	0	9	505	0	0	0	34	0	17	34	0	0	17	1060		
01:00 PM	0	116	0	0	0	8	0	0	0	0	0	3	124	0	0	0	8	0	5	8	0	0	5	264		
01:15 PM	0	103	0	0	0	11	0	0	0	0	0	3	116	0	0	0	5	0	2	5	0	0	2	240		
01:30 PM	0	125	0	0	0	4	0	0	0	0	0	5	115	0	0	0	5	0	3	5	0	0	3	257		
01:45 PM	0	109	0	0	0	8	0	0	0	0	0	1	122	0	0	0	3	0	2	3	0	0	2	245		
Total	0	453	0	0	0	31	0	0	0	0	0	12	477	0	0	0	21	0	12	21	0	0	12	1006		
Grand Total	0	1456	0	0	0	96	0	0	0	0	0	35	1470	0	0	0	97	0	40	97	0	0	40	3194		
Approch %	0	93.8	0	0	0	6.2	0	0	0	0	0	2.3	97.7	0	0	0	70.8	0	29.2	70.8	0	0	29.2			
Total %	0	45.6	0	0	0	3	0	0	0	0	0	1.1	46	0	0	0	3	0	1.3	3	0	0	1.3			

Accurate Counts
978-664-2565

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

File Name : 818800S2
Site Code : 81880002
Start Date : 3/9/2019
Page No : 9

Groups Printed- Trucks

Start Time	Route 125 From North			Old Green Hill Rd From East			Route 125 From South			Scruton Pond Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	3	0	0	0	0	0	1	0	0	0	0	4
11:15 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	7	0	0	0	0	0	2	0	0	0	0	9
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
12:30 PM	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
Total	0	2	0	0	0	0	0	1	0	0	0	0	3
01:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
01:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
01:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	6	0	0	0	0	6
Grand Total	0	9	0	0	0	0	0	9	0	0	0	0	18
Approch %	0	100	0	0	0	0	0	100	0	0	0	0	0
Total %	0	50	0	0	0	0	0	50	0	0	0	0	0

Accurate Counts

978-664-2565

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

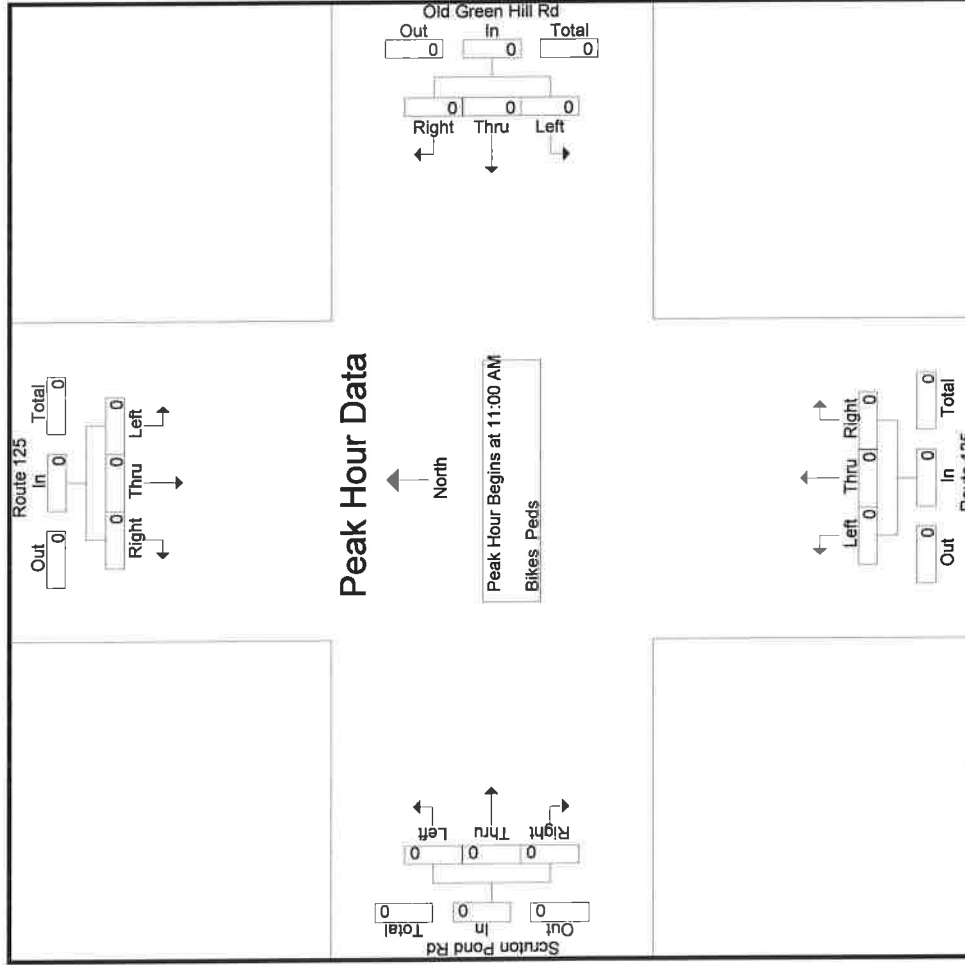
File Name : 818800S2
 Site Code : 81880002
 Start Date : 3/9/2019
 Page No : 13

Start Time	Groups Printed- Bikes Peds																		
	Route 125 From North				Old Green Hill Rd From East				Route 125 From South				Scruton Pond Rd From West						
	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	0
11:15 AM	0	0	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	0	0
11:45 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	0	0	0
12:00 PM	0	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	0
12:30 PM	0	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	0
Total	0	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	0
01:15 PM	0	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	0
01:45 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
Approch %	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

Accurate Counts
978-664-2565

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

File Name : 818600S2
Site Code : 81860002
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		
+0 mins.	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
+30 mins.	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
Total Volume	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

Accurate Counts
978-664-2565

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

File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 1

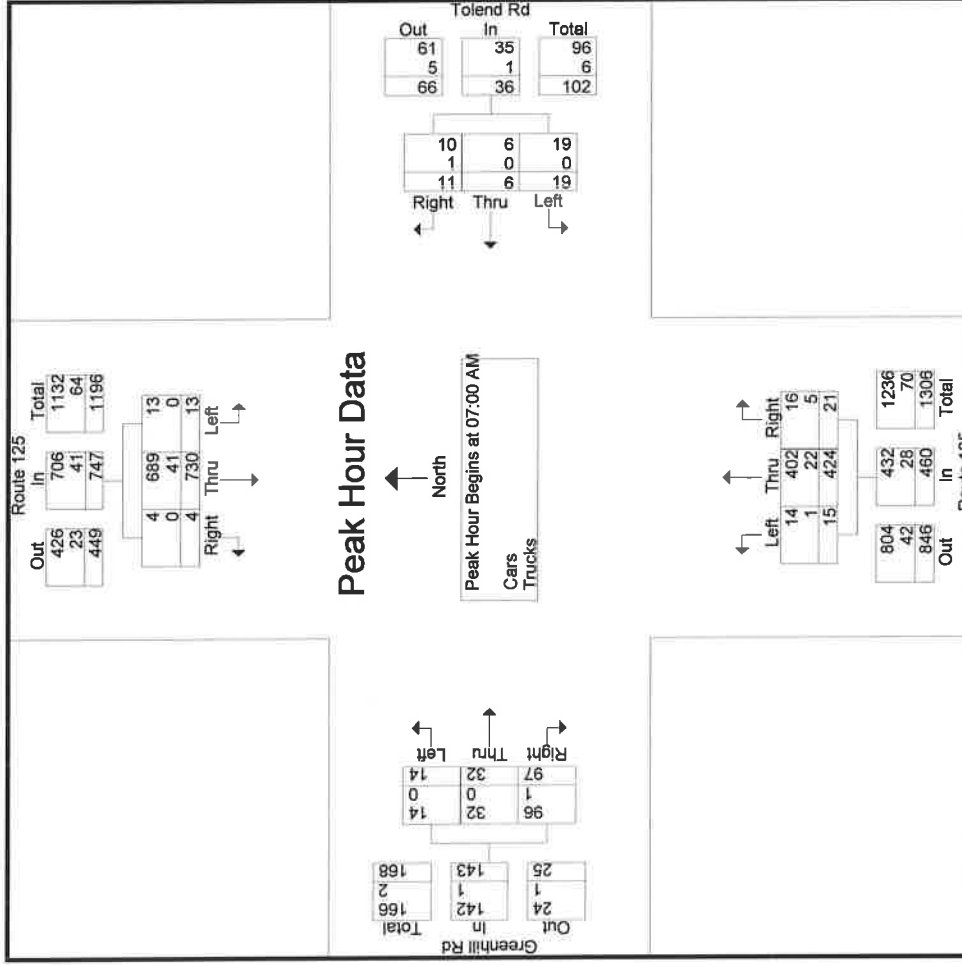
Start Time	Groups Printed- Cars - Trucks												Int. Total
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	174	2	7	1	3	1	90	3	3	4	25	313
07:15 AM	1	196	1	2	4	0	7	111	6	3	9	29	369
07:30 AM	5	187	0	5	1	2	5	111	4	4	7	19	350
07:45 AM	7	173	1	5	0	6	2	112	8	4	12	24	354
Total	13	730	4	19	6	11	15	424	21	14	32	97	1386
08:00 AM	3	127	2	1	2	5	4	110	3	3	3	26	289
08:15 AM	5	122	1	9	3	1	5	87	3	3	11	21	271
08:30 AM	1	119	3	2	1	2	5	115	10	4	5	9	276
08:45 AM	6	105	4	0	2	6	7	104	2	1	5	10	252
Total	15	473	10	12	8	14	21	416	18	11	24	66	1088
Grand Total	28	1203	14	31	14	25	36	840	39	25	56	163	2474
Apprch %	2.2	96.6	1.1	44.3	20	35.7	3.9	91.8	4.3	10.2	23	66.8	
Total %	1.1	48.6	0.6	1.3	0.6	1	1.5	34	1.6	1	2.3	6.6	
Cars	27	1141	14	31	14	24	35	792	34	25	56	161	2354
% Cars	96.4	94.8	100	100	100	96	97.2	94.3	87.2	100	100	98.8	95.1
Trucks	1	62	0	0	0	1	1	48	5	0	0	2	120
% Trucks	3.6	5.2	0	0	0	4	2.8	5.7	12.8	0	0	1.2	4.9

Accurate Counts

978-664-2565

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

File Name : 81880003
 Site Code : 81880003
 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	07:30 AM	07:45 AM	08:00 AM	08:15 AM	08:30 AM	08:45 AM
+0 mins.	0	174	2	176	2	176	2	176
+15 mins.	1	196	1	198	1	198	1	198
+30 mins.	5	187	0	192	0	192	0	192
+45 mins.	7	173	1	181	1	181	1	181
Total Volume	13	730	4	747	4	747	4	747

Accurate Counts
978-664-2565

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

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

Start Time	Groups Printed - Cars												Int. Total
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	162	2	7	1	3	1	86	3	3	4	24	296
07:15 AM	1	188	1	2	4	0	7	105	4	3	9	29	353
07:30 AM	5	175	0	5	1	2	4	103	3	4	7	19	328
07:45 AM	7	164	1	5	0	5	2	108	6	4	12	24	338
Total	13	689	4	19	6	10	14	402	16	14	32	96	1315
08:00 AM	3	118	2	1	2	5	4	108	3	3	3	25	277
08:15 AM	5	118	1	9	3	1	5	82	3	3	11	21	262
08:30 AM	1	114	3	2	1	2	5	106	10	4	5	9	262
08:45 AM	5	102	4	0	2	6	7	94	2	1	5	10	238
Total	14	452	10	12	8	14	21	390	18	11	24	65	1039
Grand Total	27	1141	14	31	14	24	35	792	34	25	56	161	2354
Apprch %	2.3	96.5	1.2	44.9	20.3	34.8	4.1	92	3.9	10.3	23.1	66.5	
Total %	1.1	48.5	0.6	1.3	0.6	1	1.5	33.6	1.4	1.1	2.4	6.8	

Accurate Counts
978-664-2565

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

File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 9

Groups Printed- Trucks

Start Time	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	12	0	0	0	0	0	4	0	0	0	1	17
07:15 AM	0	8	0	0	0	0	0	6	2	0	0	0	16
07:30 AM	0	12	0	0	0	0	1	8	1	0	0	0	22
07:45 AM	0	9	0	0	0	1	0	4	2	0	0	0	16
Total	0	41	0	0	0	1	1	22	5	0	0	1	71
08:00 AM	0	9	0	0	0	0	0	2	0	0	0	1	12
08:15 AM	0	4	0	0	0	0	0	5	0	0	0	0	9
08:30 AM	0	5	0	0	0	0	0	9	0	0	0	0	14
08:45 AM	1	3	0	0	0	0	0	10	0	0	0	0	14
Total	1	21	0	0	0	0	0	26	0	0	0	1	49
Grand Total	1	62	0	0	0	1	1	48	5	0	0	2	120
Apprch %	1.6	98.4	0	0	0	100	1.9	88.9	9.3	0	0	100	
Total %	0.8	51.7	0	0	0	0.8	0.8	40	4.2	0	0	1.7	

Accurate Counts
978-664-2565

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

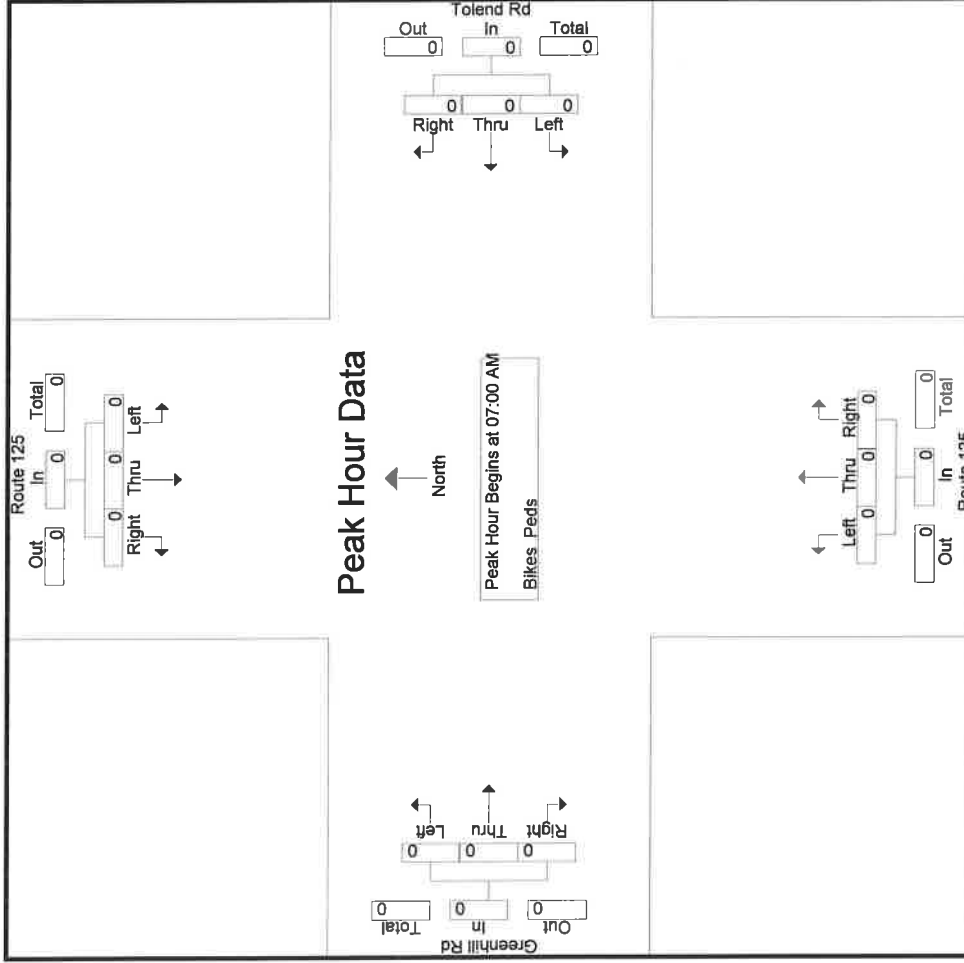
File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 13

Start Time	Groups Printed- Bikes Peds											
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
07:00 AM	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
07:30 AM	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
Total	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	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
08:30 AM	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
Total	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
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0
Total %												

Accurate Counts
978-664-2565

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

File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 15



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

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

File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 1

Start Time	Groups Printed- Cars - Trucks												
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	7	136	4	7	4	8	21	184	6	3	2	10	392
04:15 PM	3	111	4	12	11	6	22	156	3	0	4	5	337
04:30 PM	2	119	7	9	3	6	21	164	7	6	2	6	352
04:45 PM	6	115	6	9	5	7	25	195	5	3	3	10	389
Total	18	481	21	37	23	27	89	699	21	12	11	31	1470
05:00 PM	6	102	4	8	9	4	33	177	9	5	4	8	369
05:15 PM	2	103	5	10	12	7	22	167	7	3	0	8	346
05:30 PM	6	81	3	5	5	2	19	157	3	4	4	12	301
05:45 PM	4	89	2	6	5	4	20	158	1	3	3	6	301
Total	18	375	14	29	31	17	94	659	20	15	11	34	1317
Grand Total	36	856	35	66	54	44	183	1358	41	27	22	65	2787
Approch %	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	1	0.8	2.3	
Cars	36	840	35	66	54	43	183	1345	41	27	22	65	2757
% Cars	100	98.1	100	100	100	97.7	100	99	100	100	100	100	98.9
Trucks	0	16	0	0	0	1	0	13	0	0	0	0	30
% Trucks	0	1.9	0	0	0	2.3	0	1	0	0	0	0	1.1

Accurate Counts

978-664-2565

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

File Name : 81880003
 Site Code : 81880003
 Start Date : 3/7/2019
 Page No : 2

Start Time	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 04:00 PM														
04:00 PM	7	136	4	7	4	8	21	184	6	211	3	2	15	392
04:15 PM	3	111	4	12	11	6	22	156	3	181	0	4	5	337
04:30 PM	2	119	7	9	3	6	21	164	7	192	6	2	6	352
04:45 PM	6	115	6	9	5	7	25	195	5	225	3	3	10	389
Total Volume	18	481	21	37	23	27	89	699	21	809	12	11	31	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	.771	.523	.844	.890	.896	.750	.899	.500	.688	.775	.844
Cars	18	471	21	37	23	26	89	688	21	798	12	11	31	1448
% Cars	100	97.9	100	100	100	96.3	100	98.4	100	98.6	100	100	100	98.5
Trucks	0	10	0	0	0	1	0	11	0	11	0	0	0	22
% Trucks	0	2.1	0	0	0	3.7	0	1.6	0	1.4	0	0	0	1.5

Accurate Counts

978-664-2565

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

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

Start Time	Groups Printed- Cars												Int. Total
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
04:00 PM	7	130	4	7	4	7	21	182	6	3	2	10	383
04:15 PM	3	108	4	12	11	6	22	152	3	0	4	5	330
04:30 PM	2	119	7	9	3	6	21	160	7	6	2	6	348
04:45 PM	6	114	6	9	5	7	25	194	5	3	3	10	387
Total	18	471	21	37	23	26	89	688	21	12	11	31	1448
05:00 PM	6	101	4	8	9	4	33	177	9	5	4	8	368
05:15 PM	2	101	5	10	12	7	22	167	7	3	0	8	344
05:30 PM	6	78	3	5	5	2	19	156	3	4	4	12	297
05:45 PM	4	89	2	6	5	4	20	157	1	3	3	6	300
Total	18	369	14	29	31	17	94	657	20	15	11	34	1309
Grand Total	36	840	35	66	54	43	183	1345	41	27	22	65	2757
Apprch %	4	92.2	3.8	40.5	33.1	26.4	11.7	85.7	2.6	23.7	19.3	57	
Total %	1.3	30.5	1.3	2.4	2	1.6	6.6	48.8	1.5	1	0.8	2.4	

Accurate Counts
978-664-2565

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

File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 9

Start Time	Groups Printed- Trucks												
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	6	0	0	0	1	0	2	0	0	0	0	9
04:15 PM	0	3	0	0	0	0	0	4	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
04:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	10	0	0	0	1	0	11	0	0	0	0	22
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	3	0	0	0	0	0	1	0	0	0	0	4
05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	6	0	0	0	0	0	2	0	0	0	0	8
Grand Total	0	16	0	0	0	1	0	13	0	0	0	0	30
Approch %	0	100	0	0	0	100	0	100	0	0	0	0	
Total %	0	53.3	0	0	0	3.3	0	43.3	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

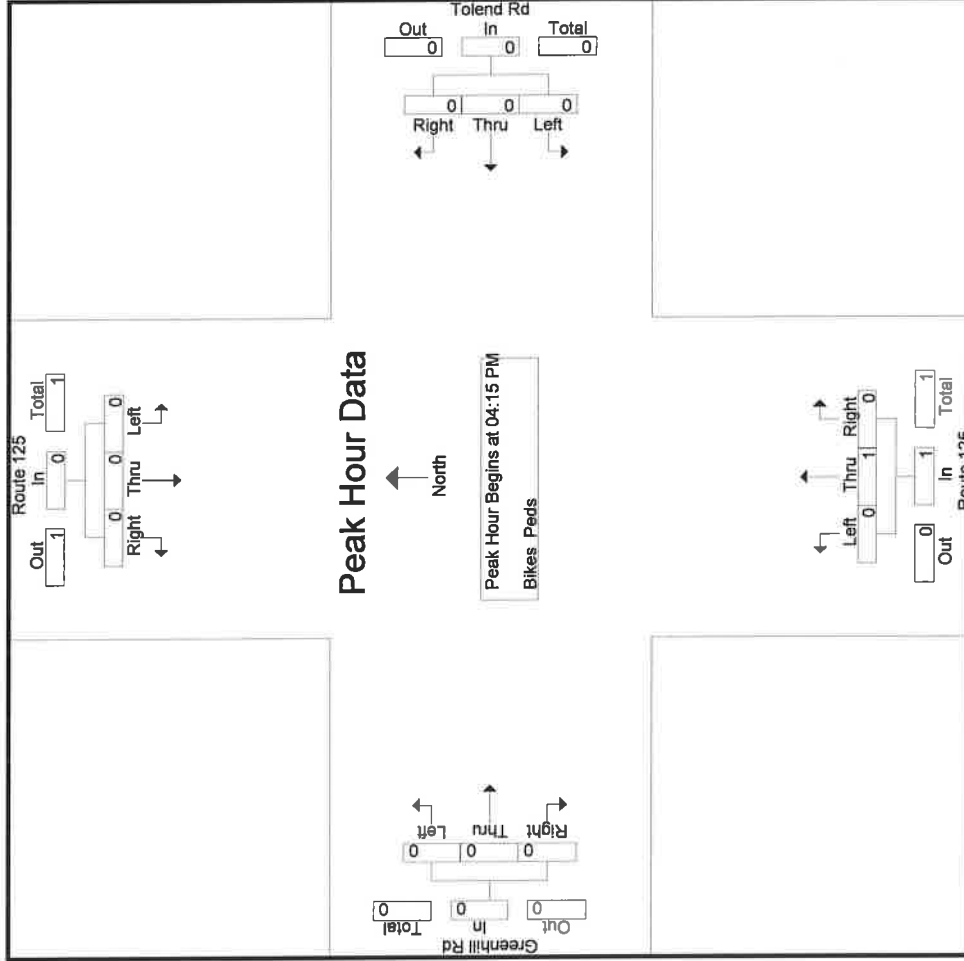
File Name : 81880003
Site Code : 81880003
Start Date : 3/7/2019
Page No : 13

Start Time	Groups Printed- Bikes Peds																		
	Route 125 From North				Tolend Rd From East				Route 125 From South				Greenhill Rd From West						
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. 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	1	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
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	1	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	2
Apprch %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	50	50	50

Accurate Counts
978-664-2565

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

File Name : 81880003
Site Code : 81880003
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	04:00 PM	04:15 PM	04:00 PM	04:00 PM
+0 mins.	0	0	0	0	0
+15 mins.	0	0	0	0	0
+30 mins.	0	0	0	0	0
+45 mins.	0	0	0	0	0
Total Volume	0	0	0	1	1

Accurate Counts
978-664-2565

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 : 1

Start Time	Groups Printed- Cars - Trucks												
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	4	98	3	9	3	4	11	131	5	2	3	13	286
11:15 AM	1	121	1	5	3	6	18	113	6	2	2	15	293
11:30 AM	8	150	7	5	1	6	13	94	3	4	4	14	309
11:45 AM	2	129	2	6	1	10	9	115	5	1	1	16	297
Total	15	498	13	25	8	26	51	453	19	9	10	58	1185
12:00 PM	5	113	4	5	2	9	11	110	4	2	2	12	279
12:15 PM	5	111	4	7	2	4	11	120	2	2	3	15	286
12:30 PM	2	105	3	3	1	9	12	119	3	4	3	9	273
12:45 PM	4	96	3	7	2	5	17	131	3	4	2	11	285
Total	16	425	14	22	7	27	51	480	12	12	10	47	1123
01:00 PM	5	107	1	6	1	6	13	116	5	1	1	14	276
01:15 PM	4	91	3	3	1	2	9	114	4	1	1	14	247
01:30 PM	7	115	0	5	6	4	11	104	6	1	3	5	267
01:45 PM	8	101	3	4	4	7	10	104	11	1	3	10	266
Total	24	414	7	18	12	19	43	438	26	4	8	43	1056
Grand Total	55	1337	34	65	27	72	145	1371	57	25	28	148	3364
Approch %	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	8	0	0	0	0	0	11	0	0	0	0	19
% Trucks	0	0.6	0	0	0	0	0	0.8	0	0	0	0	0.6

Accurate Counts
978-664-2565

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 : 2

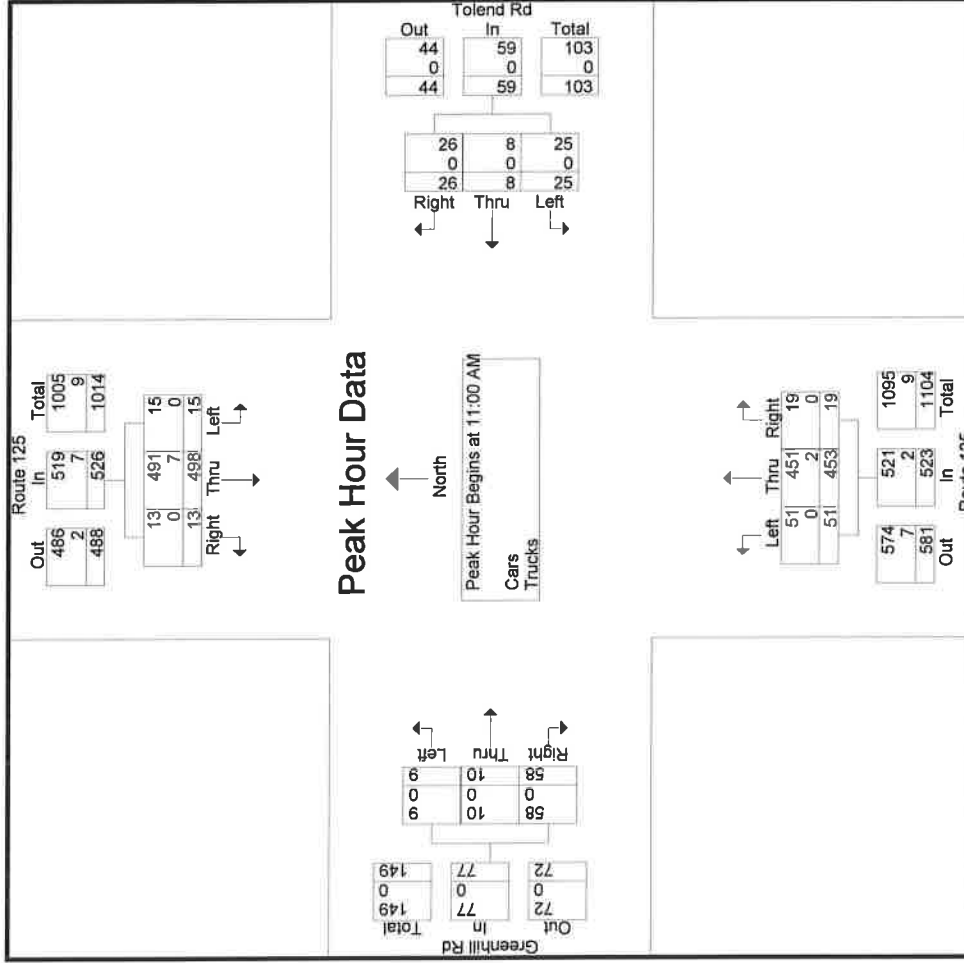
Start Time	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			Int. Total				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total					
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	4	98	3	105	9	3	4	16	11	131	5	147	2	3	13	18	286
11:15 AM	1	121	1	123	5	3	6	14	18	113	6	137	2	2	15	19	293
11:30 AM	8	150	7	165	5	1	6	12	13	94	3	110	4	4	14	22	309
11:45 AM	2	129	2	133	6	1	10	17	9	115	5	129	1	1	16	18	297
Total Volume	15	498	13	526	25	8	26	59	51	453	19	523	9	10	58	77	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	.708	.865	.792	.889	.563	.625	.906	.875	.959
Cars	15	491	13	519	25	8	26	59	51	451	19	521	9	10	58	77	1176
% Cars	100	98.6	100	98.7	100	100	100	100	100	99.6	100	99.6	100	100	100	100	99.2
Trucks	0	7	0	7	0	0	0	0	0	2	0	2	0	0	0	0	9
% Trucks	0	1.4	0	1.3	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0.8

Accurate Counts

978-664-2565

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

	11:15 AM			11:00 AM			12:15 PM			11:00 AM					
+0 mins.	1	121	123	9	3	4	16	11	120	2	133	2	3	13	18
+15 mins.	8	150	165	5	3	6	14	12	119	3	134	2	2	15	19
+30 mins.	2	129	133	5	1	6	12	17	131	3	151	4	4	14	22
+45 mins.	5	113	122	6	1	10	17	13	116	5	134	1	1	16	18
Total Volume	16	513	543	25	8	26	59	53	486	13	552	9	10	58	77
% App. Total	2.9	94.5	2.6	42.4	13.6	44.1	9.6	88	2.4	88	11.7	13	13	75.3	77.3
PHF	.500	.855	.823	.694	.667	.650	.868	.779	.927	.650	.914	.563	.625	.906	.875

Accurate Counts

978-664-2565

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

Start Time	Groups Printed- Cars												
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	4	95	3	9	3	4	11	130	5	2	3	13	282
11:15 AM	1	119	1	5	3	6	18	112	6	2	2	15	290
11:30 AM	8	150	7	5	1	6	13	94	3	4	4	14	309
11:45 AM	2	127	2	6	1	10	9	115	5	1	1	16	295
Total	15	491	13	25	8	26	51	451	19	9	10	58	1176
12:00 PM	5	113	4	5	2	9	11	109	4	2	2	12	278
12:15 PM	5	110	4	7	2	4	11	119	2	2	3	15	284
12:30 PM	2	105	3	3	1	9	12	119	3	4	3	9	273
12:45 PM	4	96	3	7	2	5	17	131	3	4	2	11	285
Total	16	424	14	22	7	27	51	478	12	12	10	47	1120
01:00 PM	5	107	1	6	1	6	13	113	5	1	1	14	273
01:15 PM	4	91	3	3	1	2	9	112	4	1	1	14	245
01:30 PM	7	115	0	5	6	4	11	104	6	1	3	5	267
01:45 PM	8	101	3	4	4	7	10	102	11	1	3	10	264
Total	24	414	7	18	12	19	43	431	26	4	8	43	1049
Grand Total	55	1329	34	65	27	72	145	1360	57	25	28	148	3345
Approch %	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 %	1.6	39.7	1	1.9	0.8	2.2	4.3	40.7	1.7	0.7	0.8	4.4	

Accurate Counts
978-664-2565

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 : 9

Groups Printed - Trucks

Start Time	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	3	0	0	0	0	0	1	0	0	0	0	4
11:15 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	7	0	0	0	0	0	2	0	0	0	0	9
12:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
12:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
12:30 PM	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
Total	0	1	0	0	0	0	0	2	0	0	0	0	3
01:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
01:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
Total	0	0	0	0	0	0	0	7	0	0	0	0	7
Grand Total	0	8	0	0	0	0	0	11	0	0	0	0	19
Approch %	0	100	0	0	0	0	0	100	0	0	0	0	0
Total %	0	42.1	0	0	0	0	0	57.9	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

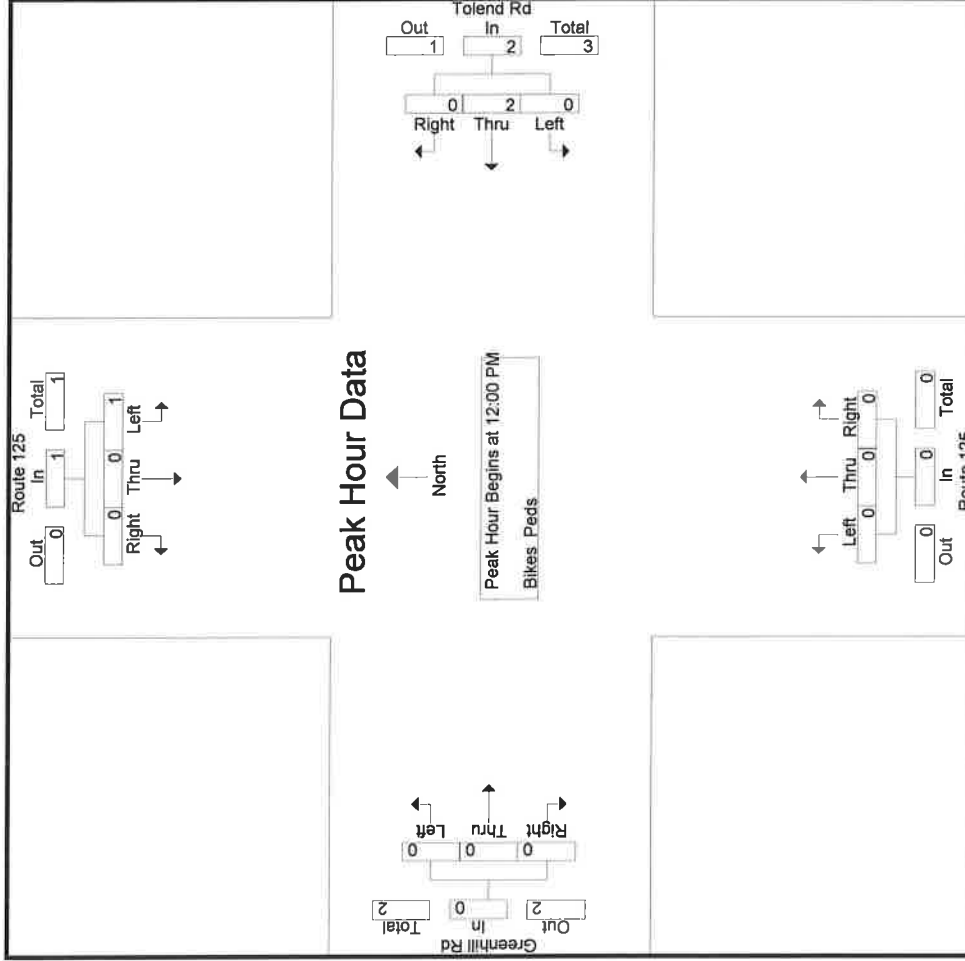
File Name : 818800S3
Site Code : 81880003
Start Date : 3/9/2019
Page No : 13

Start Time	Groups Printed- Bikes Peds																	
	Route 125 From North			Tolend Rd From East			Route 125 From South			Greenhill Rd From West								
	Left	Thru	Right	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	0	0	0
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	0	0	0
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	3
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	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Approch %	100	0	0	100	0	0				0	0	0	0	0	0			
Total %	33.3	0	0	66.7	0	0				0	0	0	0	0	0	0	100	

Accurate Counts
978-664-2565

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 : 15



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

	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
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	0	0	0	0	0
+45 mins.	1	0	0	0	0	1	0	0	0	0	0	0
Total Volume	1	0	0	0	0	2	0	0	0	0	0	0
% App. Total	100	0	0	0	100	0	0	0	0	0	0	0
PHF	.250	.000	.000	.250	.500	.000	.500	.000	.000	.000	.000	.000

SEASONAL ADJUSTMENT DATA

New Hampshire DOT

02389090: Monthly Hourly Volume for March 2018

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

Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL																		
0:00	211	102	107	163	460	936	1791	2362	1873	1341	1363	1409	1533	1479	1757	2382	2655	2468	1647	1095	862	632	380	319	29927	211	102	107	163	460	936	1791	2362	1873	1341	1363	1409	1533	1479	1757	2382	2655	2468	1647	1095	862	632	380	319	29927
1:00	126	109	172	371	811	1512	1920	1503	1084	1139	1197	1311	1458	1604	2177	2267	2166	1534	1065	765	613	408	295	25809	126	109	172	371	811	1512	1920	1503	1084	1139	1197	1311	1458	1604	2177	2267	2166	1534	1065	765	613	408	295	25809		
2:00	127	82	85	183	353	537	829	1013	1216	1557	1714	1747	1646	1750	1681	1712	1511	1304	946	728	640	456	317	22367	127	82	85	183	353	537	829	1013	1216	1557	1714	1747	1646	1750	1681	1712	1511	1304	946	728	640	456	317	22367		
3:00	133	100	56	128	250	420	546	797	1080	1551	1822	1932	1881	1909	1951	1798	1576	1255	849	574	355	212	150	21522	133	100	56	128	250	420	546	797	1080	1551	1822	1932	1881	1909	1951	1798	1576	1255	849	574	355	212	150	21522		
4:00	72	73	166	476	962	1984	2635	1912	1255	1193	1241	1339	1380	1625	2304	2494	2371	1433	873	623	415	300	245	27477	72	73	166	476	962	1984	2635	1912	1255	1193	1241	1339	1380	1625	2304	2494	2371	1433	873	623	415	300	245	27477		
5:00	100	80	175	469	999	2067	2815	1904	1403	1267	1281	1272	1432	1737	2394	2790	2436	1555	1014	758	550	319	271	29283	100	80	175	469	999	2067	2815	1904	1403	1267	1281	1272	1432	1737	2394	2790	2436	1555	1014	758	550	319	271	29283		
6:00	92	98	208	447	936	1973	2539	1774	1280	1138	1131	1244	1351	1548	1895	1767	1397	559	404	290	177	139	130	22753	92	98	208	447	936	1973	2539	1774	1280	1138	1131	1244	1351	1548	1895	1767	1397	559	404	290	177	139	130	22753		
7:00	51	70	83	164	239	451	577	522	593	542	571	585	712	866	1073	1258	1298	934	721	613	428	317	225	12967	51	70	83	164	239	451	577	522	593	542	571	585	712	866	1073	1258	1298	934	721	613	428	317	225	12967		
8:00	100	95	179	417	952	1917	2663	2058	1433	1433	1543	1668	1695	2128	2776	2995	2876	2343	1552	1333	984	533	370	34120	100	95	179	417	952	1917	2663	2058	1433	1433	1543	1668	1695	2128	2776	2995	2876	2343	1552	1333	984	533	370	34120		
9:00	158	105	115	213	241	387	800	1147	1338	1540	1686	1805	1846	1798	1886	1860	1859	1738	1553	1028	733	748	460	301	25385	158	105	115	213	241	387	800	1147	1338	1540	1686	1805	1846	1798	1886	1860	1859	1738	1553	1028	733	748	460	301	25385
10:00	128	54	54	125	241	470	663	839	1010	1405	1836	2096	2095	2049	2138	2120	1902	1524	1153	669	423	242	191	23624	128	54	54	125	241	470	663	839	1010	1405	1836	2096	2095	2049	2138	2120	1902	1524	1153	669	423	242	191	23624		
11:00	75	83	153	466	955	1947	2636	1969	1333	1351	1331	1430	1573	1748	2446	2619	2522	1564	1108	827	619	397	295	29351	75	83	153	466	955	1947	2636	1969	1333	1351	1331	1430	1573	1748	2446	2619	2522	1564	1108	827	619	397	295	29351		
12:00	87	91	136	212	416	745	758	504	359	314	392	486	343	356	349	315	233	188	143	144	107	110	90	7101	87	91	136	212	416	745	758	504	359	314	392	486	343	356	349	315	233	188	143	144	107	110	90	7101		
13:00	34	54	120	276	534	1144	1601	1738	1546	1207	1101	1080	1335	1475	1455	2135	2288	2233	1377	947	645	545	319	261	23957	34	54	120	276	534	1144	1601	1738	1546	1207	1101	1080	1335	1475	1455	2135	2288	2233	1377	947	645	545	319	261	23957
14:00	112	129	196	446	909	1947	2726	2133	1352	1257	1233	1373	1454	1794	2560	2791	2535	1682	1165	926	685	403	300	30308	112	129	196	446	909	1947	2726	2133	1352	1257	1233	1373	1454	1794	2560	2791	2535	1682	1165	926	685	403	300	30308		
15:00	112	114	183	430	917	1926	2690	2122	1468	1479	1491	1613	1736	2149	2859	3138	2928	2233	1632	1308	1017	587	398	34753	112	114	183	430	917	1926	2690	2122	1468	1479	1491	1613	1736	2149	2859	3138	2928	2233	1632	1308	1017	587	398	34753		
16:00	151	101	92	219	365	628	1076	1241	1432	1653	1859	1776	1711	1708	1829	1665	1616	1323	1098	825	739	526	298	24198	151	101	92	219	365	628	1076	1241	1432	1653	1859	1776	1711	1708	1829	1665	1616	1323	1098	825	739	526	298	24198		
17:00	149	94	78	109	249	399	584	864	1115	1543	1996	2070	2165	2047	2101	2014	1848	1430	1010	669	470	227	164	23625	149	94	78	109	249	399	584	864	1115	1543	1996	2070	2165	2047	2101	2014	1848	1430	1010	669	470	227	164	23625		
18:00	70	72	168	475	970	1983	2592	1932	1261	1191	1225	1223	1326	1699	2336	2580	2439	1376	897	570	471	316	255	27553	70	72	168	475	970	1983	2592	1932	1261	1191	1225	1223	1326	1699	2336	2580	2439	1376	897	570	471	316	255	27553		
19:00	92	111	189	438	996	2026	2674	2014	1347	1201	1147	1202	1352	1658	2389	2726	2480	1513	1015	711	497	321	264	28564	92	111	189	438	996	2026	2674	2014	1347	1201	1147	1202	1352	1658	2389	2726	2480	1513	1015	711	497	321	264	28564		
20:00	81	117	169	439	956	1980	2626	2017	1256	1216	1105	1239	1213	1579	2233	2451	2313	1358	853	622	481	283	246	27059	81	117	169	439	956	1980	2626	2017	1256	1216	1105	1239	1213	1579	2233	2451	2313	1358	853	622	481	283	246	27059		
21:00	88	96	166	409	832	1566	1932	1675	1038	1039	1111	1176	1246	1562	2205	2534	2401	1362	983	822	548	361	278	25610	88	96	166	409	832	1566	1932	1675	1038	1039	1111	1176	1246	1562	2205	2534	2401	1362	983	822	548	361	278	25610		
22:00	119	106	184	421	896	1879	2448	1935	1373	1430	1349	1500	1875	2102	2791	2828	2882	2160	1486	1102	860	527	386	32855	119	106	184	421	896	1879	2448	1935	1373	1430	1349	1500	1875	2102	2791	2828	2882	2160	1486	1102	860	527	386	32855		
23:00	148	104	100	212	383	640	1024	1215	1440	1678	1942	1866	1764	1746	1936	1791	1655	1393	1006	770	726	485	324	24635	148	104	100	212	383	640	1024	1215	1440	1678	1942	1866	1764	1746	1936	1791	1655	1393	1006	770	726	485	324	24635		
24:00	119	89	61	132	237	376	598	859	1068	1491	1818	1929	1892	1929	1881	1795	1659	1331	943	686	399	268	175	22032	119	89	61	132	237	376	598	859	1068	1491	1818	1929	1892	1929	1881	1795	1659	1331	943	686	399	268	175	22032		
25:00	72	71	143	452	925	2048	2687	1982	1236	1176	1226	1272	1326	1553	2296	2599	2431	1458	861	630	463	286	240	27532	72	71	143	452	925	2048	2687	1982	1236	1176	1226	1272	1326	1553	2296	2599	2431	1458	861	630	463	286	240	27532		
26:00	95	102	164	464	955	1996	2669	2033	1271	1248	1266	1331	1314	1649	2316	2701	2515	1467	1036	719	491	310	217	28511	95	102	164	464	955	1996	2669	2033	1271	1248	1266	1331	1314	1649	2316	2701	2515	1467	1036	719	491	310	217	28511		
27:00	86	98	170	459	925	2014	2618	1977	1292	1216	1178	1248	1313	1642	2297	2642	2561	1452	1019	772	588	328	262	28326	86	98	170	459	925	2014	2618	1																		

VEHICLE TRAVEL SPEED DATA

Accurate Counts
978-664-2565

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

8188SPD1

SB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03/07/19	0	0	0	0	1	0	0	6	5	4	0	0	0	0	16
01:00	0	0	0	0	0	0	0	1	4	5	1	0	0	0	11
02:00	0	0	0	0	0	0	0	4	2	4	4	0	0	0	14
03:00	0	0	0	0	0	0	2	11	22	9	1	1	0	0	46
04:00	0	0	0	0	1	4	6	24	33	49	15	3	0	1	136
05:00	0	0	0	0	0	4	9	47	163	115	23	3	0	0	364
06:00	0	0	0	0	1	6	19	150	337	186	34	4	0	0	737
07:00	0	0	0	0	1	9	54	198	393	183	30	4	0	0	873
08:00	0	0	0	0	2	6	26	144	228	123	32	1	0	0	562
09:00	0	0	0	0	1	2	17	96	182	107	20	0	0	0	425
10:00	0	0	0	0	1	5	34	74	119	98	22	1	0	0	354
11:00	0	0	0	0	2	2	15	88	153	99	22	2	0	0	383
12 PM	0	0	0	0	0	3	14	88	146	86	15	1	0	0	353
13:00	0	0	0	0	4	10	40	128	160	72	9	4	0	0	427
14:00	0	0	0	0	1	2	34	116	212	76	20	3	0	0	464
15:00	0	0	0	0	0	5	18	114	192	141	23	2	0	0	495
16:00	0	0	0	0	0	2	20	118	237	120	21	0	0	0	518
17:00	0	0	0	0	1	8	13	85	198	96	11	1	0	0	413
18:00	0	0	0	0	0	4	24	104	159	50	5	2	0	0	348
19:00	0	0	0	0	0	0	9	33	73	47	6	1	0	0	189
20:00	0	0	0	0	1	1	2	36	67	43	5	0	0	0	155
21:00	0	0	0	0	1	2	10	33	39	19	3	0	0	0	107
22:00	0	0	0	0	0	1	1	18	47	18	6	2	0	0	93
23:00	0	0	0	0	0	0	1	7	17	8	2	1	0	0	36
Total	0	0	0	1	17	76	368	1723	3188	1758	330	36	1	1	7499

Daily	15th Percentile :	46 MPH
	50th Percentile :	52 MPH
	85th Percentile :	57 MPH
	95th Percentile :	59 MPH
	Mean Speed(Average) :	53 MPH
	10 MPH Pace Speed :	51-60 MPH
	Number in Pace :	4946
	Percent in Pace :	66.0%
	Number of Vehicles > 55 MPH :	2126
	Percent of Vehicles > 55 MPH :	28.4%

Accurate Counts
978-664-2565

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

8188SPD1

SB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03/08/19	0	0	0	0	0	0	2	4	10	5	0	0	0	0	21
01:00	0	0	0	0	0	0	0	4	8	1	0	0	0	0	13
02:00	0	0	0	0	0	0	0	6	7	6	0	1	0	0	20
03:00	0	0	0	0	0	0	1	7	23	23	2	1	0	0	59
04:00	0	0	0	0	0	1	3	17	31	37	17	4	1	0	111
05:00	0	0	0	0	0	4	9	36	169	101	21	1	1	0	342
06:00	0	0	0	1	2	3	17	156	313	160	29	0	2	0	683
07:00	0	0	0	0	1	3	39	203	386	197	32	3	0	0	864
08:00	0	0	0	0	4	6	12	112	267	169	15	3	0	0	588
09:00	0	0	0	0	0	2	29	97	184	115	17	2	0	0	446
10:00	0	0	0	0	0	2	19	95	177	74	12	1	0	0	380
11:00	0	0	1	0	0	5	12	95	193	106	20	0	0	0	432
12 PM	0	0	0	0	1	7	34	105	167	93	12	1	0	0	420
13:00	0	0	0	0	0	4	14	123	212	87	13	2	1	0	456
14:00	0	0	0	0	1	4	23	101	231	126	17	2	0	0	505
15:00	0	0	0	0	0	5	28	144	234	87	22	4	1	0	525
16:00	0	0	0	0	0	3	17	92	218	157	30	1	0	0	519
17:00	0	0	0	0	1	5	23	96	210	94	20	1	0	0	448
18:00	0	0	0	0	1	5	20	103	153	49	13	2	0	0	346
19:00	0	0	0	0	0	2	19	63	85	28	12	0	0	0	209
20:00	0	0	0	0	0	1	7	29	60	32	9	0	0	0	138
21:00	0	0	0	0	1	2	9	32	50	20	4	0	0	0	118
22:00	0	0	0	0	0	0	4	38	47	4	2	1	0	0	115
23:00	0	0	0	0	0	1	1	12	21	12	5	0	0	0	52
Total	0	0	1	1	13	66	342	1770	3456	1802	324	29	6	0	7810

Daily
 15th Percentile : 47 MPH
 50th Percentile : 52 MPH
 85th Percentile : 57 MPH
 95th Percentile : 59 MPH
 Mean Speed(Average) : 53 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 5258
 Percent in Pace : 67.3%
 Number of Vehicles > 55 MPH : 2161
 Percent of Vehicles > 55 MPH : 27.7%

Accurate Counts
978-664-2565

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

8188SPD1

SB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03/09/19	0	0	0	0	0	0	0	3	23	5	1	0	0	0	32
01:00	0	0	0	0	0	0	1	6	8	2	1	0	0	0	18
02:00	0	0	0	0	0	0	0	6	7	7	0	0	0	0	20
03:00	0	0	0	0	0	0	0	8	8	7	2	1	0	0	26
04:00	0	0	0	0	0	1	1	13	17	13	7	2	2	0	56
05:00	0	0	0	0	0	0	4	16	42	31	6	1	0	0	100
06:00	0	0	0	0	1	1	3	15	65	79	27	3	3	0	197
07:00	0	0	0	1	1	2	3	23	75	97	46	8	0	0	256
08:00	0	0	0	0	4	4	15	52	123	118	30	4	0	0	346
09:00	0	0	0	0	1	10	24	79	174	120	20	4	0	0	432
10:00	0	0	0	0	2	2	25	85	186	122	28	3	1	0	454
11:00	0	0	0	0	7	7	18	139	235	121	24	7	0	0	551
12:00 PM	0	0	0	0	0	1	17	94	222	128	33	2	1	0	498
13:00	0	0	0	0	1	3	13	97	187	133	19	5	0	0	458
14:00	0	0	0	0	3	3	11	95	184	122	23	1	0	0	439
15:00	0	0	0	0	0	5	12	74	204	135	27	0	1	1	459
16:00	0	0	0	0	0	2	13	108	205	123	29	9	0	0	489
17:00	0	0	0	0	0	5	12	78	183	117	15	2	1	0	413
18:00	0	0	0	0	0	4	15	98	165	62	10	4	0	0	358
19:00	0	0	0	0	2	1	25	72	83	44	7	1	0	0	235
20:00	0	0	0	0	1	4	9	48	72	22	5	0	0	0	161
21:00	0	0	0	0	0	1	7	35	63	23	2	1	0	0	132
22:00	0	0	0	0	0	0	7	31	37	17	3	0	0	0	95
23:00	0	0	0	0	1	2	2	24	24	17	2	0	0	0	72
Total	0	0	0	1	10	58	237	1299	2592	1665	367	58	9	1	6297

15th Percentile : 47 MPH
 50th Percentile : 52 MPH
 85th Percentile : 58 MPH
 95th Percentile : 61 MPH
 Mean Speed(Average) : 53 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 4257
 Percent in Pace : 67.6%
 Number of Vehicles > 55 MPH : 2100
 Percent of Vehicles > 55 MPH : 33.3%

Grand Total	0	0	1	3	40	200	947	4792	9236	5225	1021	123	16	2	21606
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15th Percentile : 47 MPH
 50th Percentile : 52 MPH
 85th Percentile : 58 MPH
 95th Percentile : 60 MPH
 Mean Speed(Average) : 53 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 14461
 Percent in Pace : 66.9%
 Number of Vehicles > 55 MPH : 6387
 Percent of Vehicles > 55 MPH : 29.6%

Accurate Counts
978-664-2565

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

8188SPD1

NB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
		15	20	25	30	35	40	45	50	55	60	65	70	75	999	
	03:07:19	0	0	0	0	0	0	0	9	17	14	2	1	0	0	43
	01:00	0	0	0	0	0	0	0	6	8	6	2	0	0	0	22
	02:00	0	0	0	0	0	0	0	1	6	5	1	0	1	0	14
	03:00	0	0	0	0	0	0	1	1	12	9	6	0	0	0	29
	04:00	0	0	0	0	0	0	5	6	20	13	4	1	0	0	49
	05:00	0	0	0	0	0	0	1	7	45	36	12	0	0	0	101
	06:00	0	0	0	0	0	6	8	58	129	94	22	4	0	0	321
	07:00	0	0	0	0	0	2	20	79	173	128	38	3	0	0	443
	08:00	0	0	0	0	0	4	10	53	182	148	28	1	0	0	426
	09:00	0	0	0	0	0	2	20	43	118	152	37	8	0	0	381
	10:00	0	0	0	0	0	2	11	38	156	124	31	1	0	0	363
	11:00	0	0	0	0	0	0	17	56	192	120	25	4	0	0	414
	12 PM	0	0	0	0	0	1	18	32	140	158	26	3	0	0	378
	13:00	0	0	0	2	6	5	30	102	150	141	29	2	0	0	467
	14:00	0	0	0	0	2	6	22	71	203	179	36	5	0	0	524
	15:00	0	0	0	0	0	3	17	99	268	249	63	6	0	0	705
	16:00	0	0	0	0	0	2	16	104	341	300	49	7	0	0	819
	17:00	0	0	0	0	0	2	32	149	331	225	52	4	0	0	795
	18:00	0	0	0	0	0	1	8	80	222	170	37	1	0	0	519
	19:00	0	0	0	0	0	0	10	24	92	115	42	5	1	0	289
	20:00	0	0	0	0	1	4	7	28	95	68	20	2	0	0	225
	21:00	0	0	0	0	0	4	10	27	60	59	15	3	0	0	178
	22:00	0	0	0	0	0	0	0	14	52	44	9	0	0	0	119
	23:00	0	0	0	0	0	0	2	6	38	32	9	0	0	0	87
	Total	0	0	0	2	9	44	265	1093	3050	2589	595	61	3	0	7711

Daily	15th Percentile	50th Percentile	85th Percentile	95th Percentile	Mean Speed(Average)	10 MPH Pace Speed	Number in Pace	Percent in Pace	Number of Vehicles > 55 MPH	Percent of Vehicles > 55 MPH
	48 MPH	54 MPH	59 MPH	62 MPH	54 MPH	51-60 MPH	5639	73.1%	3248	42.1%

Accurate Counts
978-864-2665

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

8188SPD1

Start Time	1		16		21		26		31		36		41		46		51		56		61		66		71		76		Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	
03/08/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	
01:00	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	29	
02:00	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	28	
03:00	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	16	
04:00	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	33	
05:00	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	56	
06:00	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	107	
07:00	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	319	
08:00	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	463	
09:00	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	455	
10:00	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	387	
11:00	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	402	
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	439	
13:00	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	483	
14:00	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	577	
15:00	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	621	
16:00	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	796	
17:00	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	839	
18:00	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	785	
19:00	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	553	
20:00	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	331	
21:00	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	240	
22:00	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	216	
23:00	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	140	
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	8452	

Daily	15th Percentile	50th Percentile	85th Percentile	95th Percentile	Mean Speed(Average)	10 MPH Pace Speed	51-60 MPH	Number in Pace	Percent in Pace	Number of Vehicles > 55 MPH	Percent of Vehicles > 55 MPH
	49 MPH	54 MPH	59 MPH	62 MPH	55 MPH	51-60 MPH	6265	74.1%	3815	45.1%	

Accurate Counts
978-664-2665

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

8188SPD1

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03/09/19	0	0	0	0	0	0	1	10	21	24	6	0	1	0	63
01:00	0	0	0	0	0	1	0	2	8	8	3	0	0	0	27
02:00	0	0	0	0	0	0	0	3	5	10	4	1	1	0	25
03:00	0	0	0	0	0	1	1	2	14	3	1	0	0	0	22
04:00	0	0	0	0	0	0	2	6	8	6	0	0	0	0	22
05:00	0	0	0	0	0	0	0	2	23	18	5	2	1	0	51
06:00	0	0	0	0	0	0	0	8	29	57	27	2	0	0	123
07:00	0	0	0	0	0	1	3	36	47	96	33	3	0	0	219
08:00	0	0	0	0	0	2	7	21	41	137	41	2	0	0	302
09:00	0	0	0	0	0	0	10	35	173	154	38	4	0	0	415
10:00	0	0	0	0	0	3	10	34	146	196	43	6	0	0	438
11:00	0	0	0	0	0	11	10	71	243	150	33	2	0	0	520
12 PM	0	0	0	0	0	0	8	46	203	202	52	7	1	0	519
13:00	0	0	0	0	0	0	18	91	216	158	28	4	0	0	515
14:00	0	0	1	0	0	1	7	41	171	180	38	4	1	0	444
15:00	0	0	0	0	0	0	15	42	199	211	60	2	0	0	529
16:00	0	0	0	0	0	2	16	35	171	180	64	6	1	0	476
17:00	0	0	0	0	0	0	10	40	195	204	52	7	1	0	509
18:00	0	0	0	0	0	3	9	66	166	139	21	2	0	0	406
19:00	0	0	0	0	0	0	11	38	95	104	17	3	0	0	268
20:00	0	0	0	0	0	0	0	27	75	62	14	2	0	0	180
21:00	0	0	0	0	0	0	2	29	89	80	20	4	0	0	224
22:00	0	0	0	0	2	1	5	21	46	36	14	2	1	0	128
23:00	0	0	0	0	0	0	0	15	37	36	7	0	0	0	95
Total	0	0	1	0	2	27	146	721	2477	2451	621	65	8	1	6520

Daily
 15th Percentile : 50 MPH
 50th Percentile : 54 MPH
 85th Percentile : 59 MPH
 95th Percentile : 62 MPH
 Mean Speed(Average) : 55 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 4928
 Percent in Pace : 75.6%
 Number of Vehicles > 55 MPH : 3146
 Percent of Vehicles > 55 MPH : 48.3%

Grand Total	0	0	1	2	17	129	668	2844	8813	8019	1967	201	17	5	22683
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Overall
 15th Percentile : 49 MPH
 50th Percentile : 54 MPH
 85th Percentile : 59 MPH
 95th Percentile : 62 MPH
 Mean Speed(Average) : 55 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 16832
 Percent in Pace : 74.2%
 Number of Vehicles > 55 MPH : 10209
 Percent of Vehicles > 55 MPH : 45.0%

Accurate Counts
978-664-2565

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

8188SPD1

SB, NB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03:07/19	0	0	0	0	1	0	0	15	22	18	2	1	0	0	59
01:00	0	0	0	0	0	0	0	7	12	11	3	0	0	0	33
02:00	0	0	0	0	0	0	0	5	8	9	5	0	1	0	28
03:00	0	0	0	0	0	0	3	12	34	18	7	1	0	0	75
04:00	0	0	0	0	1	4	11	30	53	62	19	4	0	1	185
05:00	0	0	0	0	0	4	10	54	208	151	35	3	0	0	465
06:00	0	0	0	0	1	12	27	208	466	280	56	8	0	0	1058
07:00	0	0	0	0	1	11	74	277	566	311	68	7	1	0	1316
08:00	0	0	0	0	2	10	36	197	410	271	60	2	0	0	988
09:00	0	0	0	0	1	4	37	139	300	259	57	8	1	0	806
10:00	0	0	0	1	0	7	45	112	275	222	53	2	0	0	717
11:00	0	0	0	0	2	2	32	144	345	219	47	6	0	0	797
12 PM	0	0	0	0	0	4	32	120	286	244	41	4	0	0	731
13:00	0	0	0	2	10	15	70	230	310	213	38	6	0	0	894
14:00	0	0	0	0	3	8	56	187	415	255	56	8	0	0	988
15:00	0	0	0	0	0	8	35	213	460	390	86	8	0	0	1200
16:00	0	0	0	0	0	4	36	222	578	420	70	7	0	0	1337
17:00	0	0	0	0	1	10	45	234	529	321	63	5	0	0	1208
18:00	0	0	0	0	0	5	32	184	381	220	42	3	0	0	867
19:00	0	0	0	0	0	0	19	57	165	162	48	6	1	0	458
20:00	0	0	0	0	2	5	9	64	162	111	25	2	0	0	360
21:00	0	0	0	0	1	6	20	60	99	78	18	3	0	0	285
22:00	0	0	0	0	0	1	1	32	99	62	15	2	0	0	212
23:00	0	0	0	0	0	0	3	13	55	40	11	1	0	0	123
Total	0	0	0	3	26	120	633	2816	6238	4347	925	97	4	1	15210

Daily
 15th Percentile : 47 MPH
 50th Percentile : 53 MPH
 85th Percentile : 58 MPH
 95th Percentile : 61 MPH
 Mean Speed(Average) : 54 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 10585
 Percent in Pace : 69.6%
 Number of Vehicles > 55 MPH : 5374
 Percent of Vehicles > 55 MPH : 35.3%

Accurate Counts
978-664-2565

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

8188SPDI

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03/08/19	0	0	0	0	0	0	6	12	30	19	2	0	0	0	69
01:00	0	0	0	0	0	0	1	8	20	12	0	1	0	0	42
02:00	0	0	0	0	0	0	0	9	12	8	5	2	0	0	36
03:00	0	0	0	0	1	0	1	10	41	32	5	1	0	0	92
04:00	0	0	0	0	0	1	3	27	51	53	23	8	1	0	167
05:00	0	0	0	0	0	4	11	47	205	138	38	2	2	1	449
06:00	0	0	0	1	2	5	30	207	437	249	66	3	2	0	1002
07:00	0	0	0	0	4	4	52	261	575	347	77	7	0	0	1327
08:00	0	0	0	0	4	6	32	168	456	325	46	6	0	0	1043
09:00	0	0	0	0	0	10	39	145	312	267	57	2	0	0	833
10:00	0	0	0	0	0	7	28	136	347	205	53	5	1	0	782
11:00	0	0	1	0	0	12	34	155	330	268	65	4	1	0	871
12 PM	0	0	0	0	3	14	62	186	357	237	43	1	0	0	903
13:00	0	0	0	0	0	12	37	209	424	284	55	11	0	0	1033
14:00	0	0	0	0	1	4	46	177	495	343	89	6	1	0	1126
15:00	0	0	0	0	0	6	40	211	542	419	53	13	1	0	1321
16:00	0	0	0	0	1	13	28	193	550	462	106	5	0	0	1356
17:00	0	0	0	0	0	8	47	182	524	373	92	5	1	0	1233
18:00	0	0	0	0	1	6	31	178	399	231	49	3	1	0	899
19:00	0	0	0	0	0	7	33	89	219	139	49	4	0	0	540
20:00	0	0	0	0	0	1	10	45	132	146	40	4	0	0	378
21:00	0	0	0	0	1	2	20	53	130	94	30	4	0	0	334
22:00	0	0	0	0	0	0	6	56	92	81	17	3	0	0	255
23:00	0	0	0	0	1	1	2	36	62	49	14	4	0	0	169
Total	0	0	1	1	19	124	599	2800	6742	4781	1075	104	12	4	16262

Daily

15th Percentile :	48 MPH
50th Percentile :	53 MPH
85th Percentile :	58 MPH
95th Percentile :	61 MPH
Mean Speed(Average) :	54 MPH
10 MPH Pace Speed :	51-60 MPH
Number in Pace :	11523
Percent in Pace :	70.9%
Number of Vehicles > 55 MPH :	5976
Percent of Vehicles > 55 MPH :	36.7%

Accurate Counts
978-664-2565

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

8188SPD1

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
03/09/19	0	0	0	0	0	0	1	13	44	29	7	0	1	0	95
01:00	0	0	0	0	0	1	1	8	21	10	4	0	0	0	45
02:00	0	0	0	0	0	0	1	9	12	17	4	1	1	0	45
03:00	0	0	0	0	0	1	1	10	22	10	3	0	0	0	48
04:00	0	0	0	0	0	1	3	19	25	19	7	2	2	0	78
05:00	0	0	0	0	0	0	4	18	65	49	11	3	1	0	151
06:00	0	0	0	0	1	1	3	23	94	136	54	5	3	0	320
07:00	0	0	0	1	1	3	6	59	122	193	79	11	0	0	475
08:00	0	0	0	0	0	6	22	73	215	255	71	6	0	0	648
09:00	0	0	0	0	1	11	34	114	347	274	58	8	0	0	847
10:00	0	0	0	0	2	5	35	119	332	318	71	9	1	0	892
11:00	0	0	0	0	0	18	28	210	478	271	57	9	0	0	1071
12 PM	0	0	0	0	0	1	25	140	425	330	85	9	2	0	1017
13:00	0	0	0	0	1	3	31	188	403	291	47	9	0	0	973
14:00	0	0	1	0	0	4	18	136	355	302	61	5	0	0	883
15:00	0	0	0	0	0	5	27	116	403	346	87	2	1	0	988
16:00	0	0	0	0	0	4	29	143	376	303	93	15	1	1	965
17:00	0	0	0	0	0	5	22	118	378	321	67	9	2	0	922
18:00	0	0	0	0	0	7	24	164	331	201	31	6	0	0	764
19:00	0	0	0	0	2	1	36	110	178	148	24	4	0	0	503
20:00	0	0	0	0	1	4	9	75	147	84	19	2	0	0	341
21:00	0	0	0	0	0	1	9	64	152	103	22	5	0	0	356
22:00	0	0	0	0	2	1	12	52	83	53	17	2	0	0	223
23:00	0	0	0	0	1	2	2	39	61	53	9	0	0	0	167
Total	0	0	1	1	12	85	383	2020	5069	4116	988	123	17	2	12817

Daily
 15th Percentile : 48 MPH
 50th Percentile : 53 MPH
 85th Percentile : 59 MPH
 95th Percentile : 62 MPH
 Mean Speed(Average) : 54 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 9185
 Percent in Pace : 71.7%
 Number of Vehicles > 55 MPH : 5246
 Percent of Vehicles > 55 MPH : 40.9%

Grand Total	0	0	2	5	57	329	1615	7636	18049	13244	2988	324	33	7	44289
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Overall
 15th Percentile : 48 MPH
 50th Percentile : 53 MPH
 85th Percentile : 58 MPH
 95th Percentile : 61 MPH
 Mean Speed(Average) : 54 MPH
 10 MPH Pace Speed : 51-60 MPH
 Number in Pace : 31293
 Percent in Pace : 70.7%
 Number of Vehicles > 55 MPH : 16596
 Percent of Vehicles > 55 MPH : 37.5%

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 – 0 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.

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

A handwritten signature in black ink, appearing to read "Kathleen P. O'Brien". The signature is written in a cursive, somewhat stylized font.

Sgt. Kathleen P. O'Brien

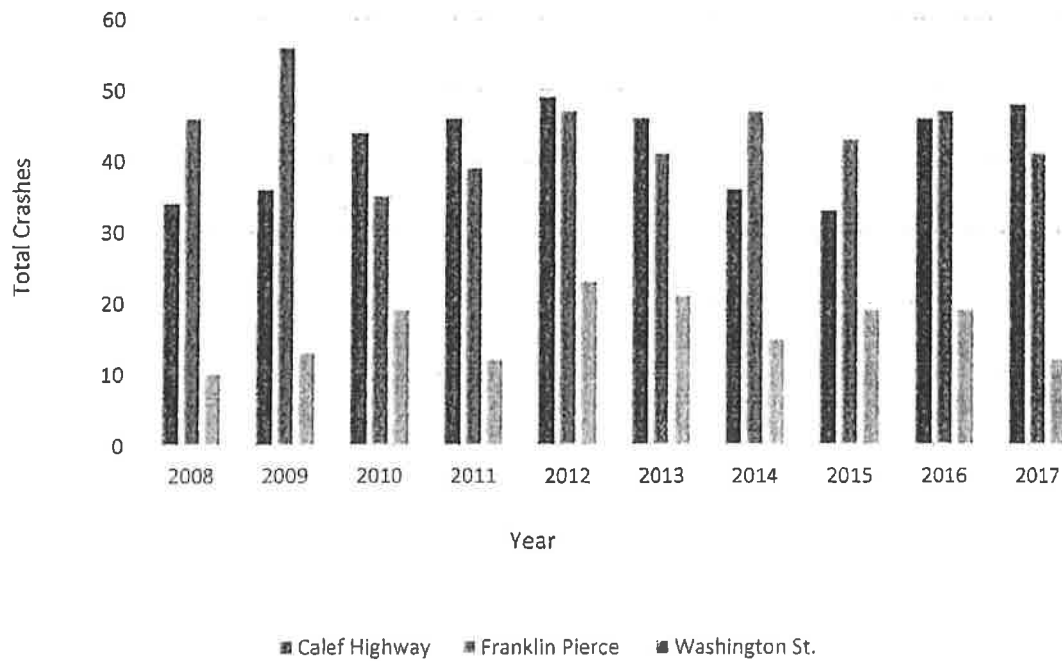
Total Accidents In Barrington 2008-2017				
Year	Total Accidents	Acc w/ Non-Inc. Inj.	Acc. w/SBI	Acc. w/Fatalities
2008	152	23	3	1
2009	163	34	8	1
2010	151	29	0	2
2011	154	30	6	0
2012	164	30	4	1
2013	179	39	6	2
2014	164	35	2	2
2015	160	28	0	1
2016	177	43	5	2
2017	176	45	5	0
Total	1640	336	39	12
Average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

Roads with Highest Crash Instances

Total of All Crashes

Traffic Crash Data											
Top 3 Crash Roads											
	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%

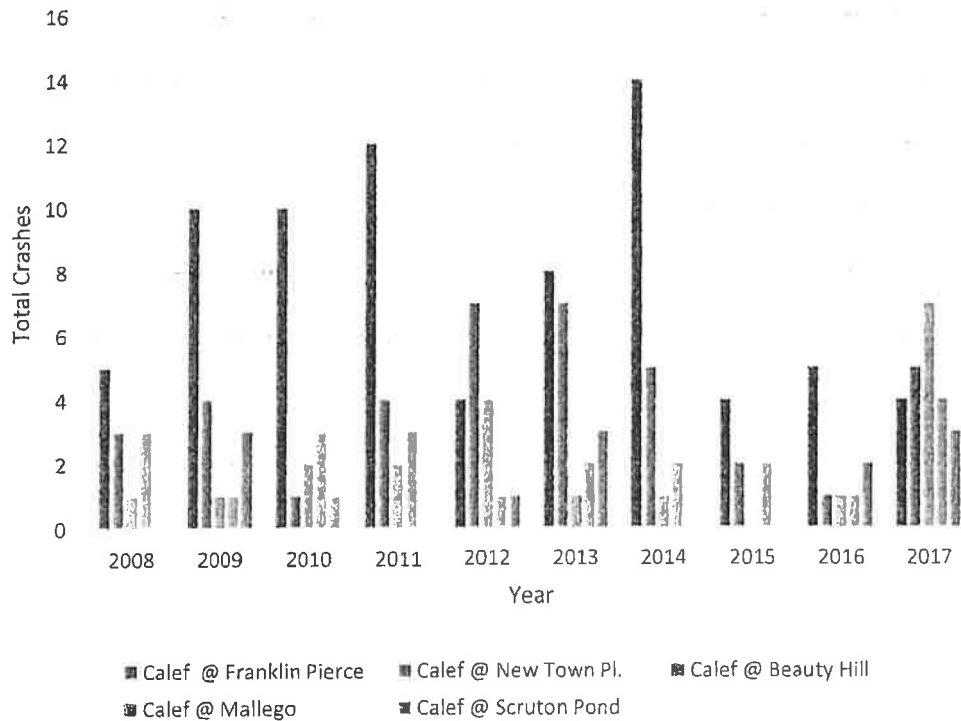
Roads w/Highest Crash Instances



Intersection Related Crashes

Highest Intersection Related Crashes (Includes Total Crashes for the Year)										
	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

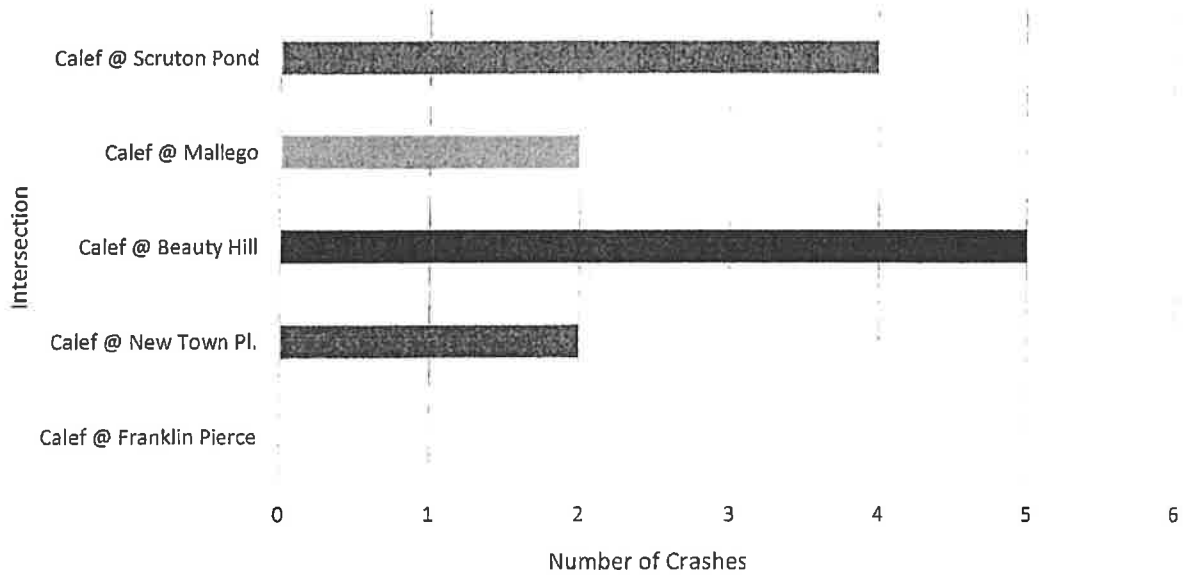
Intersection Related Crashes



Intersection Crash Data - SBI and Fatalities

Total Intersection Related Crashes w/SBI & Fatalities Over Ten Years											
(Utilizing Intersections/Area's with Highest Number of Total Accidents)											
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

10 Year Total SBI/Fatalities at High Crash Intersections



SBI/Fatal Crash List 2008-2017

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

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

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 AUGUST 1999
82 027055 BARRINGTON- NH 125 (CALEF RD) SOUTH OF NH 9

016

M O N T H
 D A T E

8	29	1	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	
8	29	1	72	40	52	84	132	170	278	515	743	1089	1176	1259	1164	1123	1204	1247	1272	1231	993	683	421	219	146	15430
8	30	2	28	26	75	198	478	831	1251	1075	856	898	952	1020	924	1057	1178	1374	1312	861	620	463	362	190	164	16253
8	25	4	87	65	43	84	205	441	849	1149	1008	903	1001	1079	1034	1080	1163	1396	1295	971	732	541	423	298	178	16955
8	26	5	110	59	35	70	184	444	1188	1046	993	970	1068	1100	1054	1074	1254	1337	1283	968	739	577	466	241	167	17229
8	27	6	90	64	58	81	172	422	1139	975	1016	975	1145	1100	1136	1288	1289	1396	1440	1121	964	700	485	274	240	18369
8	28	7	121	75	52	61	102	193	507	739	1063	1220	1359	1189	1121	1017	1009	1024	927	903	716	640	476	343	239	15393

TYPE STATION YEAR MONTH NO. DAYS AVERAGE SUNDAY AVERAGE WEEKDAY AVERAGE SATURDAY AVERAGE DAILY COMPUTED VOLUME PERCENT GAIN PERCENT LOSS

82 027055 1999 August 6 15430 17202 15393 16682 517155

PEAK HOUR VOLUMES:

AVERAGE AM: 743
 AVERAGE MIDDAY: 1259
 AVERAGE PM: 1272
 SUNDAY 1182
 WEEKDAY 1086
 SATURDAY 1359
 AM - 6 AM TO 10 AM
 MIDDAY - 10 AM TO 2 PM
 PM - 2 PM TO 8 PM

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 JUNE 2002
82 027055 BARRINGTON- NH 125 (CALEF RD) SOUTH OF NH 9

2/22/2016

M O N D A Y	6	25	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	Total
NO	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
6	68	45	119	261	647	1229	1807	1423	1238	1220	1184	1241	1225	1225	1483	1709	1678	1180	775	650	527	323	193	21366	
6	115	66	71	111	246	661	1137	1546	1406	1203	1217	1135	1200	1233	1264	1448	1575	1196	870	814	550	327	164	21265	
6	121	62	59	118	234	637	1182	1556	1428	1279	1188	1307	1256	1324	1435	1624	1458	1165	785	702	445	268	136	21029	
6	110	64	58	83	237	554	1094	1345	1296	1255	1361	1388	1396	1431	1490	1651	1652	1417	1056	846	624	435	289	22528	

TYPE	STATION	YEAR	MONTH	NO. DAYS	AVERAGE SUNDAY	AVERAGE WEEKDAY	AVERAGE SATURDAY	AVERAGE DAILY	COMPUTED VOLUME	PERCENT GAIN	PERCENT LOSS
82	027055	2002	June	4	0	21547	0	*	*		

PEAK HOUR VOLUMES:

AVERAGE AM:	AVERAGE MIDDAY:	AVERAGE PM:
SUNDAY		AM - 6 AM TO 10 AM
WEEKDAY	1294	MIDDAY - 10 AM TO 2 PM
SATURDAY	1674	PM - 2 PM TO 8 PM

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 JUNE 2005
BARRINGTON-NH 125 (CALEF RD) SOUTH OF NH 9

M O N D A Y	D A T E	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																								
		80	68	48	40	201	515	941	1296	1167	966	967	942	999	1043	1118	1226	1459	1378	1063	663	475	389	220	158	17422
6	28	3																								
6	29	4																								
6	30	5																								

TYPE	STATION	YEAR	MONTH	NO. DAYS	AVERAGE SUNDAY	AVERAGE WEEKDAY	AVERAGE SATURDAY	AVERAGE DAILY	COMPUTED VOLUME	PERCENT GAIN	PERCENT LOSS
82	027055	2005	June	3	0	17800	0	*	*		

PEAK HOUR VOLUMES:

SUNDAY	WEEKDAY	SATURDAY	AVERAGE AM:	AVERAGE MIDDAY:	AVERAGE PM:
	1232		*	1067	*
					1467

AM - 6 AM TO 10 AM
 MIDDAY - 10 AM TO 2 PM
 PM - 2 PM TO 8 PM

STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION - BUREAU OF TRAFFIC
 IN COOPERATION WITH U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

2/22/2016

AUTOMATIC TRAFFIC RECORDER DATA FOR THE MONTH OF JULY 2005
82 027055 BARRINGTON-NH 125 (CALEF RD) SOUTH OF NH 9

M O N D A T Y
 7 3 1 2 3 4 5 6 7

	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
7	156	79	53	45	80	59	171	277	466	764	1048	1146	1138	985	862	841	896	859	849	677	662	458	470	379	13420
7	145	61	39	38	69	74	178	288	445	570	848	975	1084	990	884	906	889	937	841	838	814	526	502	295	13236
7	165	106	52	78	186	471	803	1130	1101	1059	1136	1248	1246	1365	1403	1497	1470	1354	1324	956	721	617	436	344	20268
7	166	98	76	60	100	148	311	517	783	1056	1345	1411	1263	1260	1134	1053	996	904	797	690	564	534	355	297	15919

TYPE	STATION	YEAR	MONTH	NO. DAYS	AVERAGE SUNDAY	AVERAGE WEEKDAY	AVERAGE SATURDAY	AVERAGE DAILY	COMPUTED VOLUME	PERCENT GAIN	PERCENT LOSS
82	027055	2005	July	4	13420	16752	15919	16080	498487		

PEAK HOUR VOLUMES:

AVERAGE AM:	AVERAGE MIDDAY:	AVERAGE PM:
SUNDAY 764	1146	AM - 6 AM TO 10 AM 896
WEEKDAY 850	1224	MIDDAY - 10 AM TO 2 PM 1217
SATURDAY 1056	1411	PM - 2 PM TO 8 PM 1134

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 2008
BARRINGTON- NH 125 (CALEF RD) SOUTH OF NH 9

M O N T H	D A Y	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
7	8	65	56	38	60	192	520	937	1247	1156	947	936	899	988	974	1057	1172	1419	1379	939	724	536	376	226	168	17011
7	9	71	52	45	60	179	493	969	1215	1153	938	898	943	984	1001	1069	1239	1434	1324	932	661	530	414	237	144	16985

TYPE STATION YEAR MONTH July NO. DAYS 2 AVERAGE SUNDAY 0 AVERAGE WEEKDAY 16998 AVERAGE SATURDAY 0 AVERAGE DAILY 0 COMPUTED VOLUME * PERCENT GAIN PERCENT LOSS

PEAK HOUR VOLUMES: SUNDAY WEEKDAY SATURDAY AVERAGE AM: 1231 AVERAGE MIDDAY: 994 AVERAGE PM: 1426 AM - 6 AM TO 10 AM MIDDAY - 10 AM TO 2 PM PM - 2 PM TO 8 PM

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 JUNE 2011
82 027055 BARRINGTON-NH 125 (CALEF RD) SOUTH OF NH 9

2/22/2016

M O N D A Y	D A T E	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																								
		64	35	37	74	209	605	1020	1302	1105	841	717	818	815	850	1072	1267	1290	1280	831	661	467	329	214	118	16021
6	14	3																								
6	15	4	74	51	29	94	185	564	1006	1311	1206	906	882	937	1117	1276	1376	1380	1011	737	499	392	200	155	17194	
6	16	5	84	48	49	87	194	557	997	1362	1226	921	873	924	952	951	1120	1396	1315	1202	920	782	607	456	232	17358

TYPE	STATION	YEAR	MONTH	NO. DAYS	AVERAGE SUNDAY	AVERAGE WEEKDAY	AVERAGE SATURDAY	AVERAGE DAILY	COMPUTED VOLUME	PERCENT GAIN	PERCENT LOSS
82	027055	2011	June	3	0	16858	0	0	*		

PEAK HOUR VOLUMES:

SUNDAY	AVERAGE AM:	AVERAGE MIDDAY:	AVERAGE PM:
WEEKDAY	*	*	*
SATURDAY	1325	913	1335
	*	*	*

AM - 6 AM TO 10 AM
 MIDDAY - 10 AM TO 2 PM
 PM - 2 PM TO 8 PM



March 20, 2012

**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: **NHDOT**
Bill Oldenburg
John Butler
Doug DePorter
OTHERS
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) plants 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.

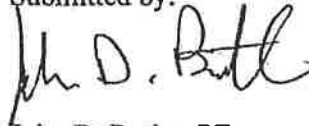
It was recommended that lighting be provided at the intersection. Bill Oldenburg responded that lighting will be considered, but in general the Department has been reducing the number of active street lights statewide as a cost savings measure.

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

MEETING SIGN-UP SHEET

PROJECT Barrington - NH 125 / Greenhill Rd / Tolend Rd.
 LOCATION Public Officials / Public Info. meeting, Early Childhood Learning Center,
 PROJECT NO. X-A000 (181) 16201 Barrington
 Federal State

Name	Agency	Comments
Diane Brochu	Brian's Archery	about time!
BRIAN BROCHU	Brian's Archery	—
Joel Sheehan	Mycological Society	—
DUANE KIMBALL	RESIDENT	THANK YOU!
Wayne Brulotte	RESIDENT	about time!
Richard Walker Jr	Resident / Fire chief	" "
DARYL LANDRY	RESIDENT/LANDRY'S AUTO	About Time!
Ulrike Emmerling	Sugar & Ice Resident	Thank you!

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: **PUBLIC HEARING COMMISSION**

Richard Adams, Chairperson
William Gregsak
Thomas Tatarczuch

NHDOT

Bill Oldenburg Victoria Chase
John Butler 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:

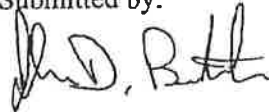
- a. The Department has considered all the issues associated with the US 202 free-flow alternative and with the left turn lane alternative, and feels that the proposed design presented at the public hearing provides the most cost-effective solution while considering the issues of safety, efficient operations, 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.

Response: 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.

Response: 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

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 GRECSAK 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.

THANK YOU BILL

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?

ANY TOWN OFFICIALS?

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.

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 be 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.

Barrington 16178 Public Hearing

July 18, 2012

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

NE quadrant – historic

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

**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

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.

BARRINGTON 16178
PUBLIC HEARING STATEMENT

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

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.

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

Please PRINT Name	Address
JOHN SEWSTON	TOWN ADMINISTRATOR BARRINGTON
JOHN AMAND	RESIDENT
STUE YOUNG	RESIDENT
TERRI FRANK	RESIDENT
Marlene Allard	Resident
Wayne Wiggins	Resident
Dorothy Wiggins	Resident
Susan Gandolfo	Resident
Jeffrey Kenyon	Resident
Joel Sherburne	Resident Historical Society President

INDEX OF SHEETS

- SHEET NO. 1 TITLE PAGE
- 2 PLAN SHEET
- 3 TRAFFIC SIGNAL STANDARD DETAILING SHEETS
- 4 TRAFFIC SIGNAL STANDARD DETAILING SHEETS
- 5 TRAFFIC SIGNAL STANDARD DETAILING SHEETS
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- 100 TRAFFIC SIGNAL STANDARD DETAILING SHEETS

STATE OF NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

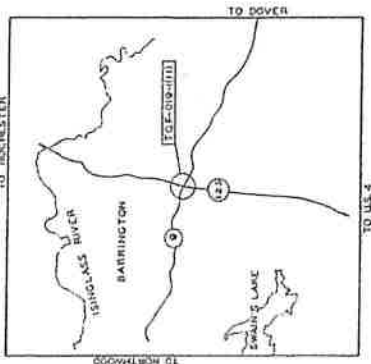
**PLANS OF PROPOSED
FEDERAL AID PRIMARY PROJECT**

TQF-019-1(11)

N.H. PROJECT NO. 5-2955

CALEF CORNER
TRAFFIC SIGNAL INSTALLATION
SCALE AS NOTED.

THIS PROJECT TO BE CONSTRUCTED IN ACCORDANCE WITH
SPECIFICATIONS AND STANDARD DRAWINGS AND SUPPLEMENTAL
SPECIFICATIONS AND STANDARD DRAWINGS AND SUPPLEMENTAL
PROVISIONS ATTACHED TO PROPOSAL.



LOCATION MAP
SCALE IN MILES

CONVENTIONAL SIGNS

NO.	DESCRIPTION	DATE
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100

DATE	BY	REVISION
5-29-55		1
		2
		3

DESIGN DATA	
AVERAGE DAILY TRAFFIC	1000
PEAK HOUR TRAFFIC	100
TRUCK PERCENTAGE	5
DESIGN SPEED	30
MAXIMUM CURVATURE	0.01
MINIMUM CLEARANCE	14
NON-PASSING SIGHT DISTANCE	1000
STOPPING SIGHT DISTANCE	1000
LENGTH OF PROJECT	1000
	FEET
	MILES

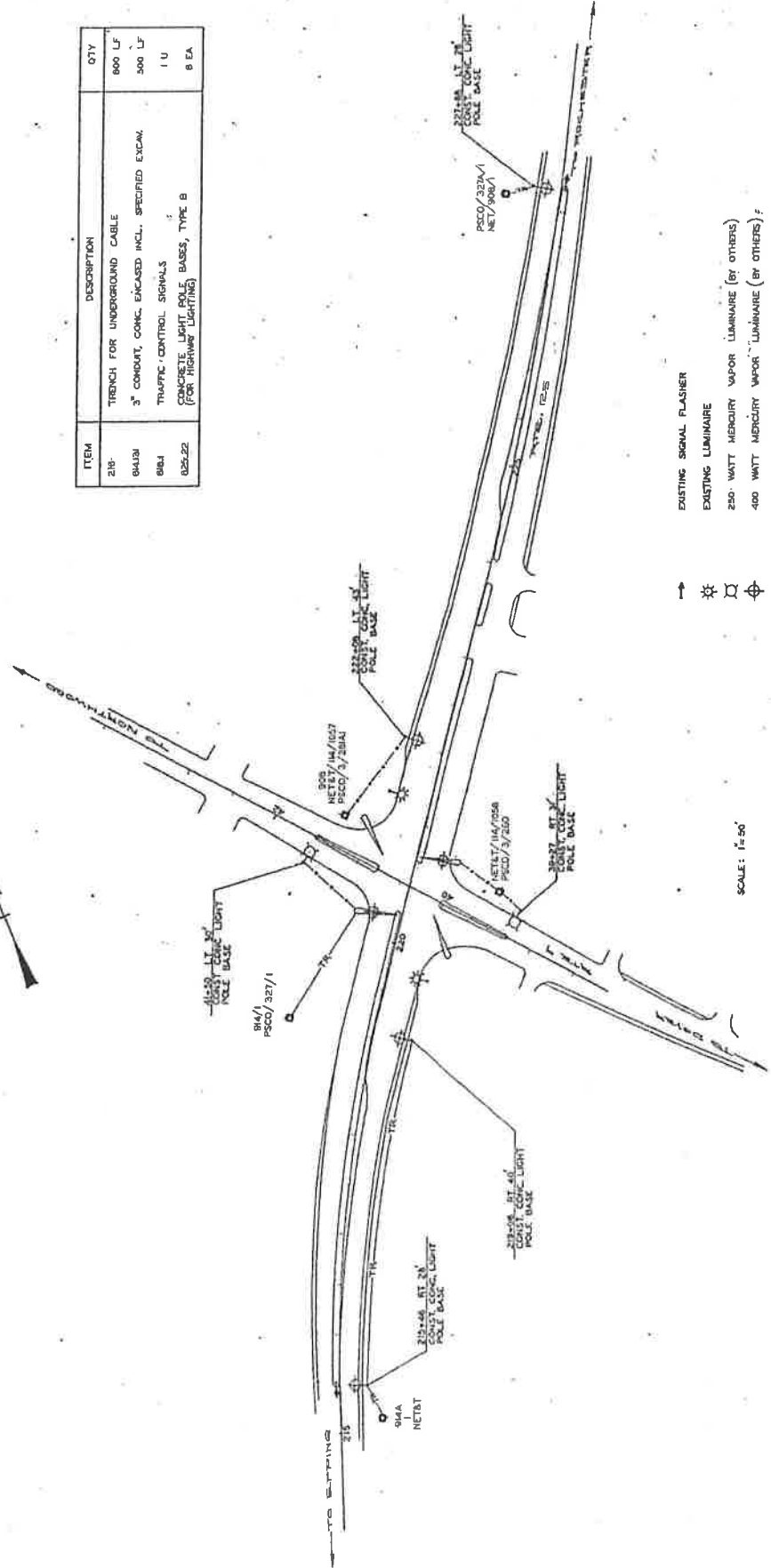
RECOMMENDED FOR APPROVAL DATE: 7-1-57
APPROVED: *John S. ...*
SUPERVISOR

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____ DATE: _____
SUPERVISOR

TOWN OF BARRINGTON
COUNTY OF STRAFFORD

DATE	NO.	BY	REVISION
10/10/78	1	JLH	ISSUED FOR PERMITS
11/15/78	2	JLH	REVISED PER COMMENTS
	3		

ITEM	DESCRIPTION	QTY
218	TRENCH FOR UNDERGROUND CABLE	800 LF
841B1	3" CONDUIT, CONCR. ENCASED INCL. SPECIFIED EXCAV.	500 LF
884	TRAFFIC CONTROL SIGNALS	1 U
025.22	CONCRETE LIGHT POLE BASES, TYPE B (FOR HIGHWAY LIGHTING)	9 EA



- EXISTING SIGNAL FLASHER
- EXISTING LUMINAIRE
- 250 WATT MERCURY VAPOR LUMINAIRE (BY OTHERS)
- 400 WATT MERCURY VAPOR LUMINAIRE (BY OTHERS)
- CONCRETE LIGHT POLE BASE
- TRENCH FOR UNDERGROUND CABLE
- NEW CONDUIT

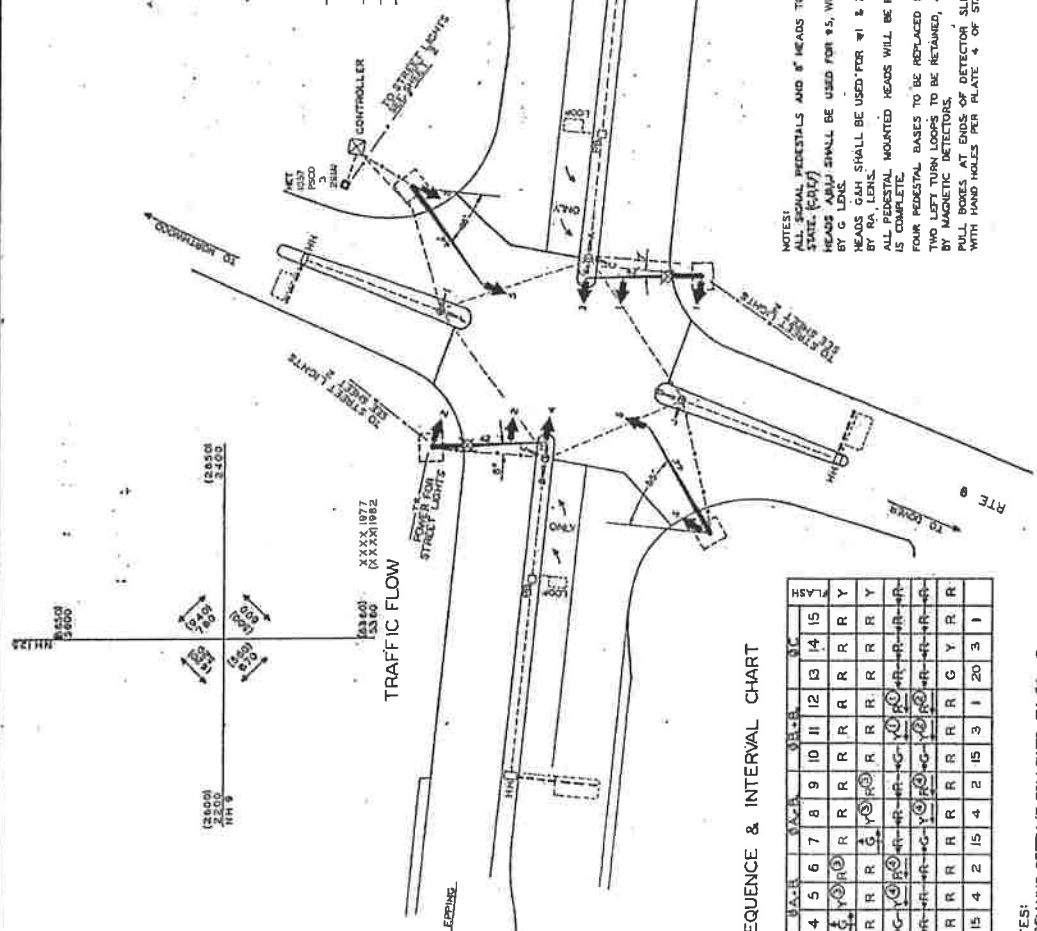
SCALE: 1:500

DATE	NO.	BY	REVISION
10/10/78	1	JLH	ISSUED FOR PERMITS
11/15/78	2	JLH	REVISED PER COMMENTS
	3		



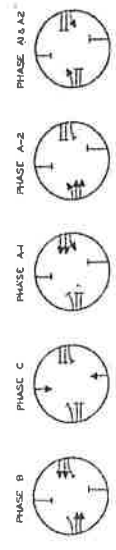
- TR — TRENCHING FOR UNDERGROUND CABLE
- ⊗ — 400 WATT MERCURY VAPOR LUMINAIRE
- — — — — EXISTING CONDUIT
- — — — — NEW CONDUIT
- — — — — MAGNETIC DETECTOR SLEEVE (NEW)
- PB — PULL BOX
- HH — HAND HOLE

SCALE: 1"=20 FEET

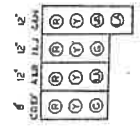


NOTES:
 ALL SIGNAL PEDESTALS AND HEADS TO BE RETURNED TO THE STATE. (2017)
 HEADS SHALL BE USED FOR 9.5, WITH LA LENS REPLACED BY G LENS.
 HEADS SHALL BE USED FOR 1 & 2, WITH LA LENS REPLACED BY RA LENS.
 ALL PEDESTAL MOUNTED HEADS WILL BE RELOCATED WHEN PROJECT IS COMPLETE.
 FOUR PEDESTAL BASES TO BE REPLACED BY PULL BOXES BY MAGNETIC DETECTOR. ALL OTHER LOOPS REPLACED BY MAGNETIC DETECTOR. SLEEVES SHALL BE REPLACED WITH HAND HOLES PER PLATE # 4 OF STANDARD 10.

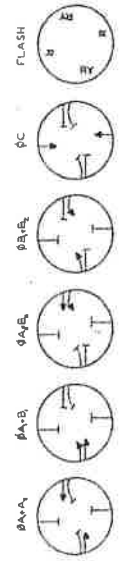
EXISTING SIGNAL PHASING



EXISTING SIGNAL HEADS



NEW SIGNAL PHASING (DUAL LEFT TURN CONTROLLER)

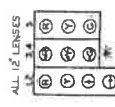


SEQUENCE & INTERVAL CHART

INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
2	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
3	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
4	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
5	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
TIME (SEC)	30	4	2	15	4	2	15	4	2	15	3	1	20	3	1

NOTES:
 1 - REMAINS GREEN IF FOLLOWED BY 0A1 + B
 2 - " " " " " " " " 0A2 + B
 3 - " " " " " " " " 0A1 + A2
 4 - " " " " " " " " 0B1 + B

MODIFIED & NEW SIGNAL HEADS



* OPTICALLY VEILED

TRAFFIC SIGNAL MAST ARM FOUNDATION - TYPE I*

*Type I Foundation is designed for the following traffic signal structures by Union Metal Manufacturing Company.

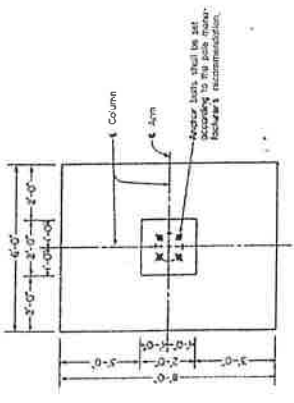
1. Steel "Monobloc" traffic signal poles with angle traffic arms and luminaire arm structures as shown on Draw. No. 50300-E242, Detail Oct 19, 1971, Design No. 50300-1279 thru 50300-1282.
2. Steel "Monobloc" traffic signal poles with angle traffic arms and luminaire arm structures as shown on Draw. No. 50300-E241, Revision B2, Design No. 50300-1283 thru 50300-1286 and Design No. 50300-1287.

In situations where Type I Footings can not be used, poured in place Type II Footings may be used. Precast footings shall not be permitted.

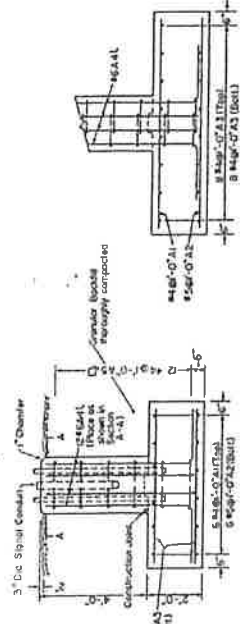
Foundation redesign shall be required if:

1. The above designs are modified by Union Metal Manufacturing Co.
2. Any additional traffic signals or signs are to be attached to the structure.
3. Loads other than those manufactured by Union Metal Manufacturing Co. are to be placed on the foundation.

NOTE: All reinforcing steel shall be min. 3' clear.

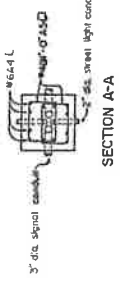


PLAN



ELEVATION

END ELEVATION



SECTION A-A

REINFORCING SCHEDULE

Mark.	Size	No.	Spacing	Type
B1	#4	8	9'-0"	—
B2	#6	6	7'-0"	—
B3	#4	20	7'-0"	—
B4	#4	12	8'-0"	L
B5	#4	12	6'-0"	Q

F4B5
1'-6"
0'-6"
0'-6"
0'-6"

QUANTITY TABLE

Item No.	Description	Quantity
5-41	Concrete Class A (Figs.)	4.1 CK
5-42	Reinforcing Steel	315 lbs.

TRAFFIC SIGNAL MAST ARM FOUNDATION - TYPE II**

**Type II Foundation is designed for the following traffic signal structures by Union Metal Manufacturing Company.

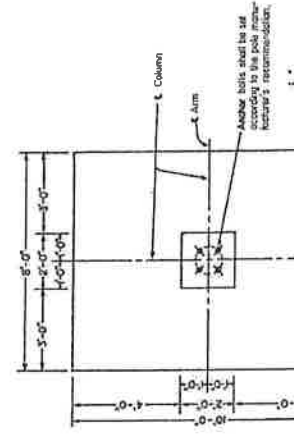
1. Steel "Monobloc" traffic signal poles with angle traffic arms and luminaire arm structures as shown on Draw. No. 50300-E242, Detail Oct 19, 1971, Design No. 50300-1279 thru 50300-1282.
2. Steel "Monobloc" traffic signal poles with angle traffic arms and luminaire arm structures as shown on Draw. No. 50300-E241, Revision B2, Design No. 50300-1283 thru 50300-1286 and Design No. 50300-1287.

In situations where Type II Footings can not be used, poured in place Type III Footings may be used. Precast footings shall not be permitted.

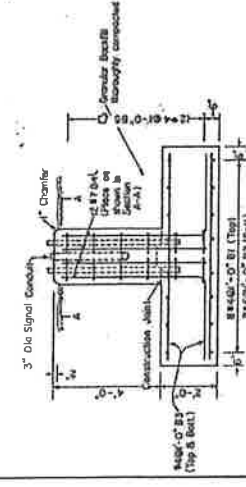
Foundation redesign shall be required if:

1. The above designs are modified by Union Metal Manufacturing Co.
2. Any additional traffic signals or signs are to be attached to the structure.
3. Loads other than those manufactured by Union Metal Manufacturing Co. are to be placed on the foundation.

NOTE: All reinforcing steel shall be min. 3' clear.

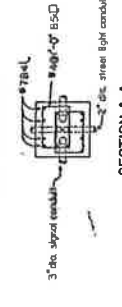


PLAN



ELEVATION

END ELEVATION



SECTION A-A

REINFORCING SCHEDULE

Mark.	Size	No.	Spacing	Type
B1	#4	8	9'-0"	—
B2	#6	6	7'-0"	—
B3	#4	20	7'-0"	—
B4	#4	12	8'-0"	L
B5	#4	12	6'-0"	Q

F4B5
1'-6"
0'-6"
0'-6"
0'-6"

QUANTITY TABLE

Item No.	Description	Quantity
5-41	Concrete Class A (Figs.)	0.5 CK
5-42	Reinforcing Steel	54 lbs.

SCALE: 1" = 2'

FROM BRIDGE - FILE NO. 15-4-5 SHEET 1 of 2

TRAFFIC SIGNAL FOUNDATION - TYPE III (POLE FOUNDATION) ***

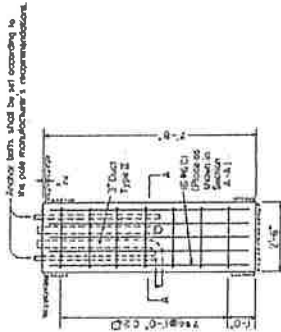
***Either Type II-A or Type II-B Foundations shall be used for the following structures by Union Metal Manufacturing Co.:

1. Steel "Monobloc" Signal Pole-Sign Wha. Substation Type - Steel structures as shown on page 09-Aug. 1, 1967, Design No. 50054-Y49 & 50054-Y50.
2. Steel Aluminum-Inspired (cast iron) Microdot traffic signal poles (ASFA cast iron) as shown on page 0101-AUG. 1, 1967, Design No. 50130-Y27 thru 50130-Y32 & Design No. 50132-Y10 thru 50132-Y12.

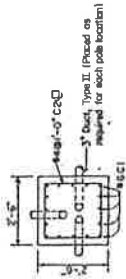
1. Foundation drawings shall be required if:
 - a. The above designs are modified by Union Metal Manufacturing Co.
 - b. The above designs are modified by other than Union Metal Manufacturing Co. in the structure.
2. Poles other than those manufactured by the Union Metal Manufacturing Co. are to be placed on the foundation.

NOTE: Code tension shall not exceed recommended value as shown on the Union Metal Manufacturing Co. plan sheets.

TYPE III - A SQUARE



ELEVATION



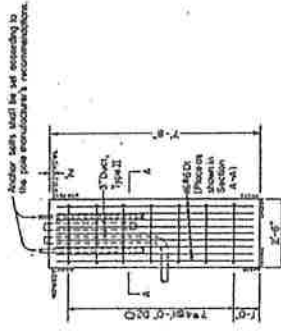
SECTION A-A

REINFORCING SCHEDULE			
Mark	Size	No.	Type
C1	#6	16	7'-2" \square
C2	#4	7	5'-0" \square

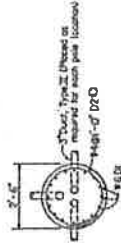
QUANTITY TABLE		
Item No.	Description	Quantity
50011	Concrete (Cast A/Figs.)	18 CY
544	Reinforcing Steel	2.04 Tons

- NOTES:
1. All reinforcing steel shall be min. 3" clear.
 2. Temporary bracing shall be used.

TYPE III - B ROUND



ELEVATION



SECTION A-A

REINFORCING SCHEDULE			
Mark	Size	No.	Type
D1	#6	16	7'-2" \square
D2	#4	7	5'-0" \square

QUANTITY TABLE		
Item No.	Description	Quantity
50011	Concrete (Cast A/Figs.)	14.6 CY
544	Reinforcing Steel	2.08 Tons

- NOTES:
1. All reinforcing steel shall be min. 3" clear.
 2. The 2'-0" dia. pole boring shall be used only in firm soils.
 3. The 15' dia. pole boring shall be used only in soft soils.
 4. The hole shall be drilled in the soil and the concrete shall be placed in the hole directly against the soil.

SCALE: 1"=4'

SCALE: 1"=2'

FROM BRIDGE - FILE NO. 10-4-5

SHEET 2 OF 2

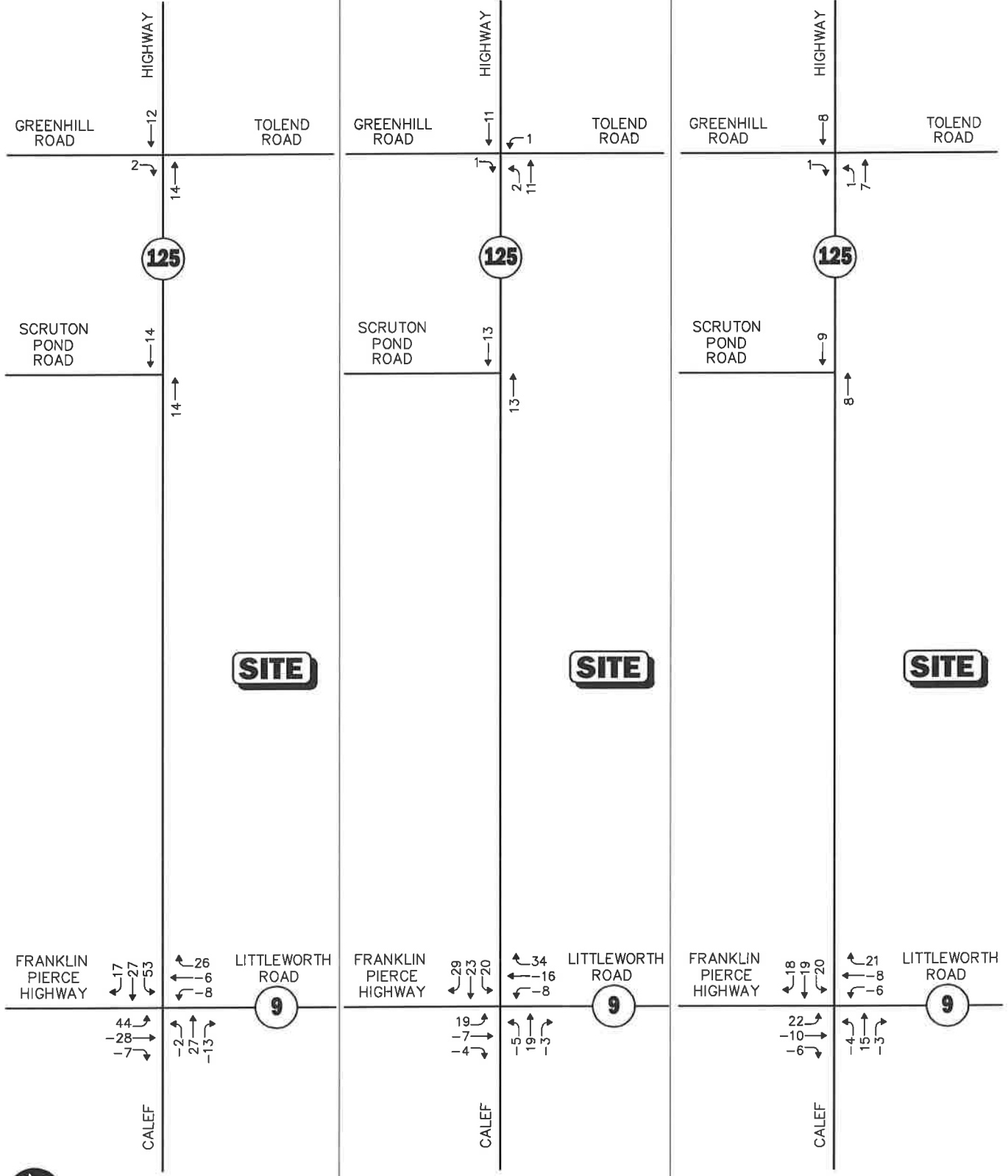
DESCRIPTION

BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 AM - 12:00 PM)**



Not To Scale

Figure A1



**491 Calef Highway
Gas Station / Convenience Store
Peak Hour Traffic Volumes**

Table 1A **Trip Generation Summary - Horizon Year (2012)**

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

Table 1B **Trip Generation Summary - Horizon Year (2022)**

TRIP GENERATION	<u>AM Peak Hour</u>			<u>PM Peak Hour</u>		
	<u>Entering</u>	<u>Exiting</u>	<u>Total</u>	<u>Entering</u>	<u>Exiting</u>	<u>Total</u>
Gas Station/C-Store ¹	100 veh	100 veh	200 trips	115 veh	115 veh	230 trips
Donut Shop ²	152 veh	152 veh	304 trips	47 veh	47 veh	94 trips
Less Trip Linking ³	<u>-52 veh</u>	<u>-52 veh</u>	<u>-104 trips</u>	<u>-16 veh</u>	<u>-16 veh</u>	<u>-32 trips</u>
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 ⁴	<u>153 veh</u>	<u>153 veh</u>	<u>306 trips</u>	<u>104 veh</u>	<u>104 veh</u>	<u>208 trips</u>
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:

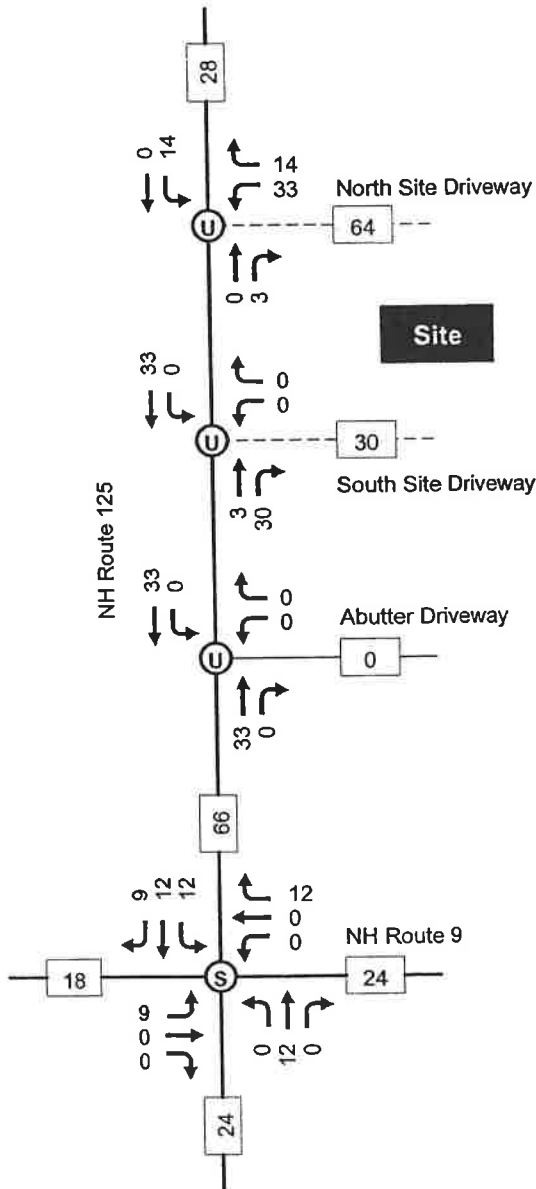
<u>To / From</u>	<u>Percentage</u>
NH Route 125 - North	30%
NH Route 125 - South	25%
NH Route 9 - East	25%
NH Route 9 - West	<u>20%</u>
	100%

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.

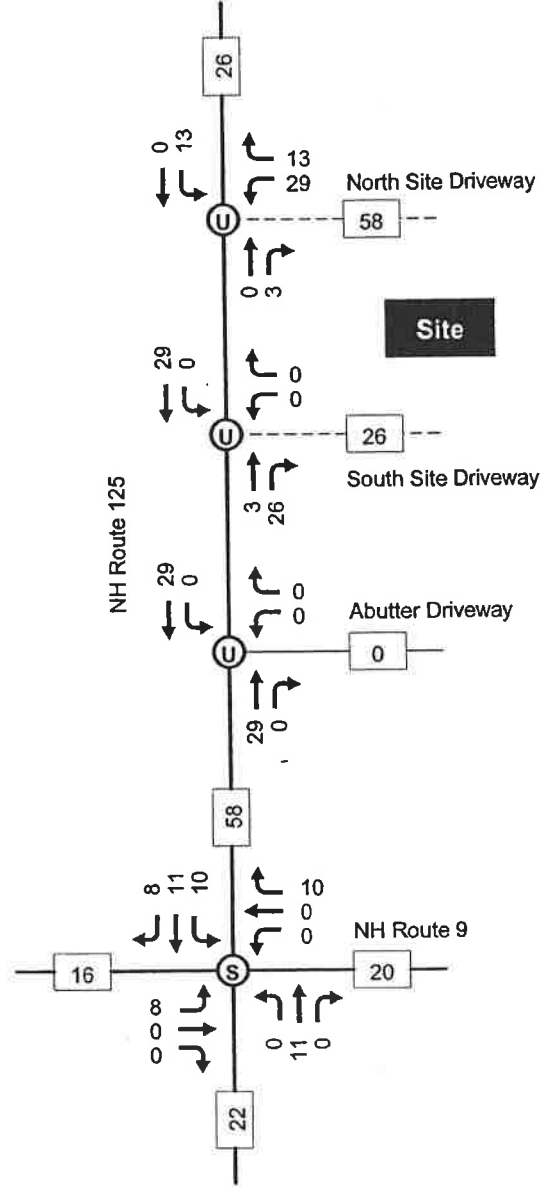
Appendix G contains diagrams that summarize the anticipated distribution of site traffic throughout the study area for the morning and evening analysis periods.

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.

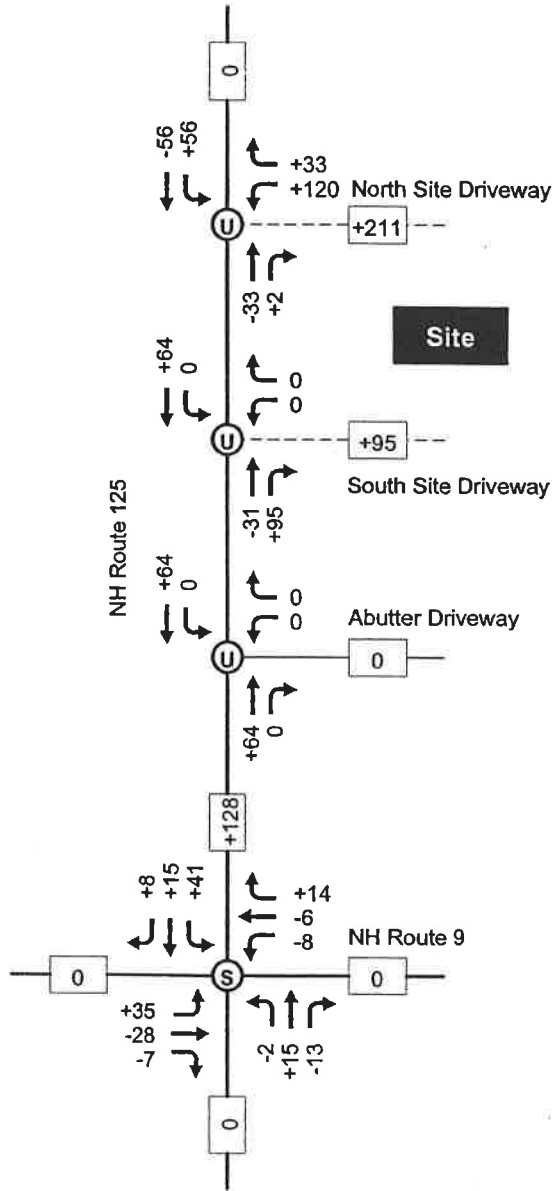


AM PEAK HOUR

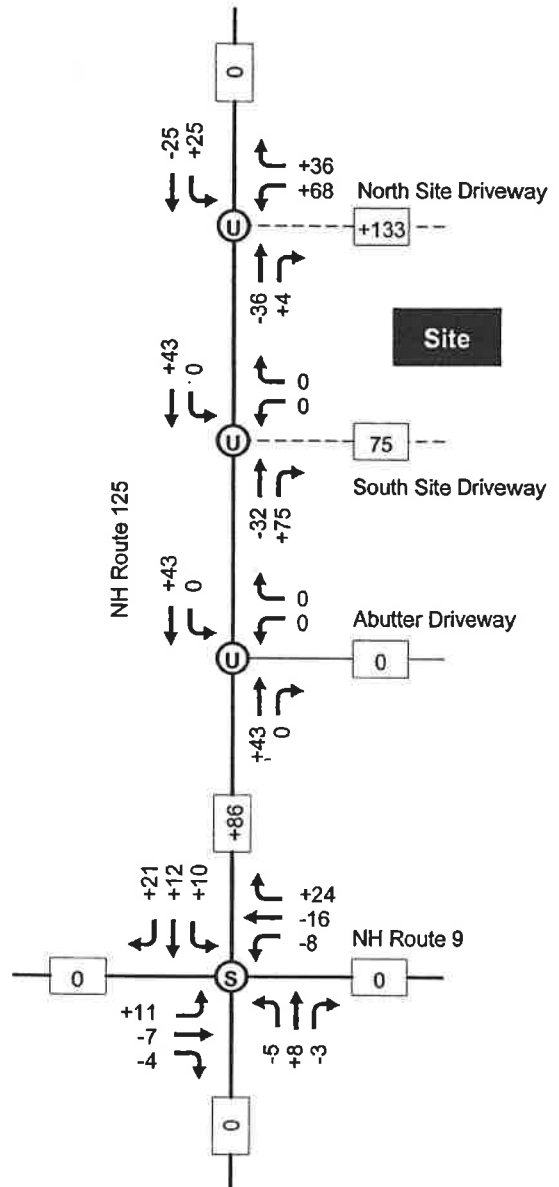


PM PEAK HOUR





AM PEAK HOUR



PM PEAK HOUR

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 = ~~100~~ 200 vehicle trips
 with 50% (100 vph) entering and 50% (~~98~~ 100 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 19.07 * (X)
 T = 19.07 * 12
 T = 228.84
 T = ~~228~~ 230 vehicle trips
 with 50% (115 vph) entering and 50% (~~114~~ 115 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.

* Assume 60 PASS-BY

	TOTAL TRIPS	PASS-BY	PRIMARY
IN	61	36	25
OUT	59	36	23
TOTAL	120	72	48

DONUT SHOP: 10% CAPTURE* + 34% Dual-Purpose TRIP

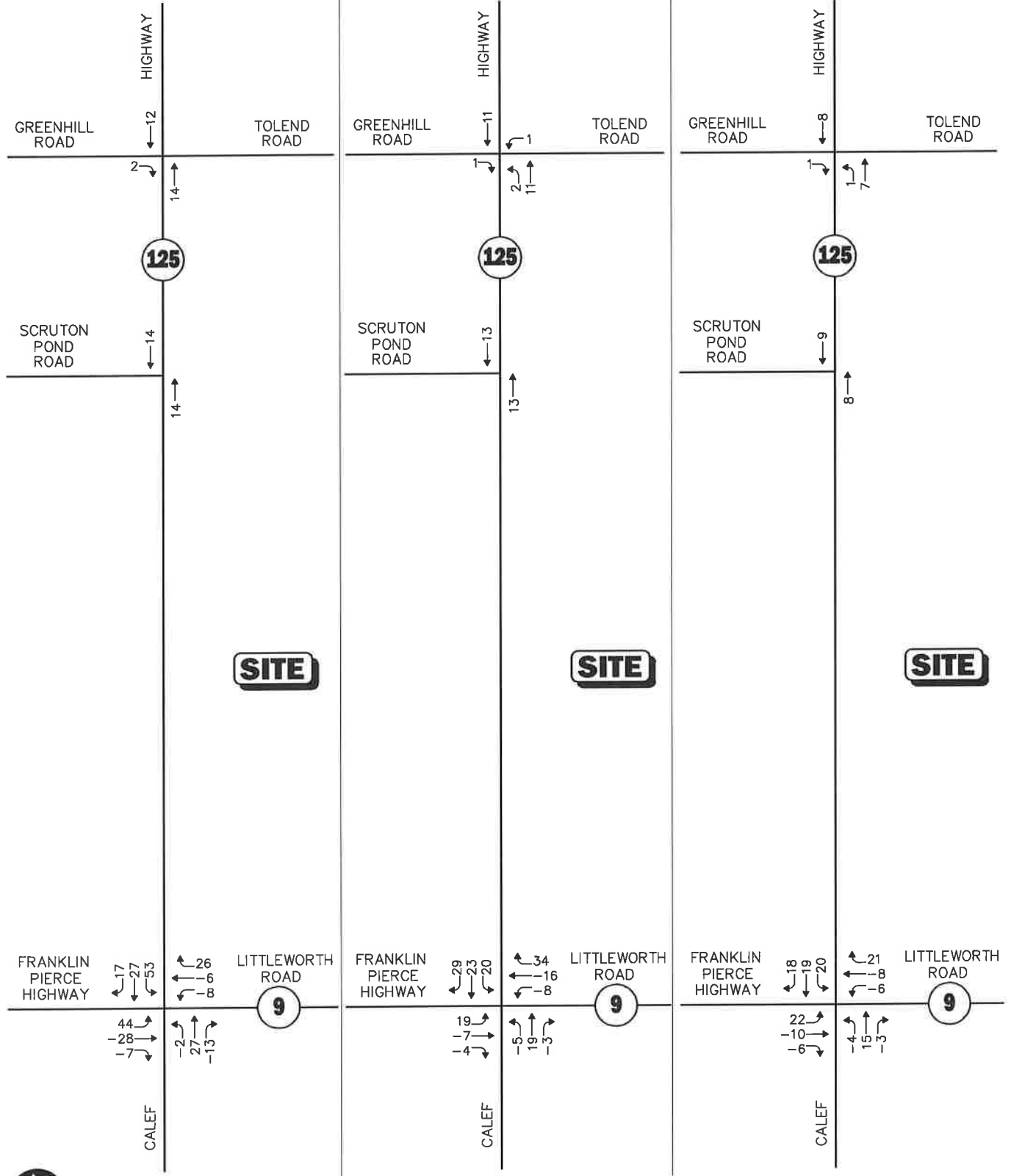
		DUAL PURPOSE	NET	PASS-BY (90%)	PRIMARY
IN	75	26	49	44	5
OUT	75	26	49	44	5
TOTAL	150	52	98	88	10

*PER STUDY BY SGP + APPROVED FOR USE BY NHDOT

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 AM - 12:00 PM)**



Not To Scale

Figure A1



**491 Calef Highway
Gas Station / Convenience Store
Peak Hour Traffic Volumes**

TRIP-GENERATION CALCULATIONS

Warehousing (150)

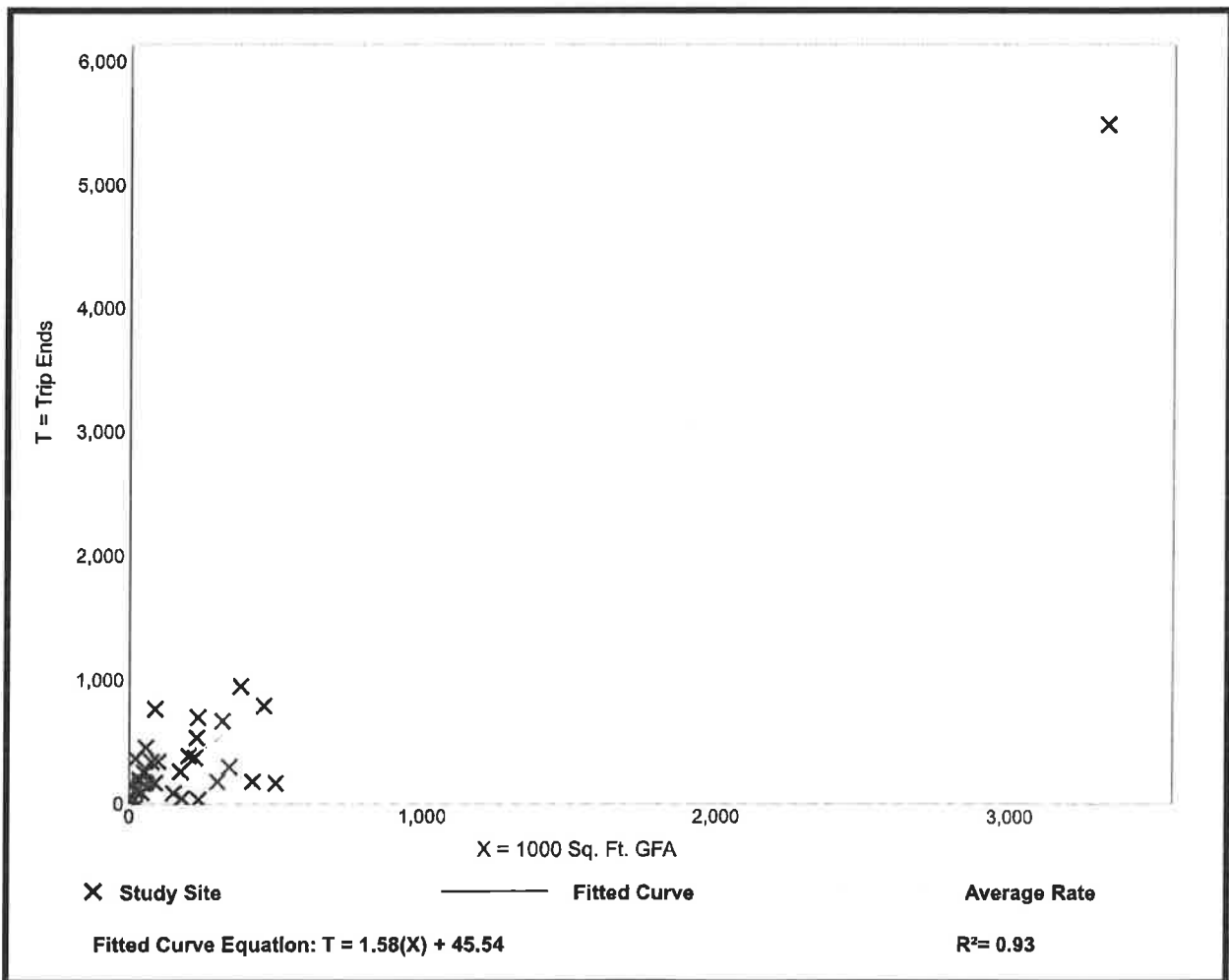
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

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



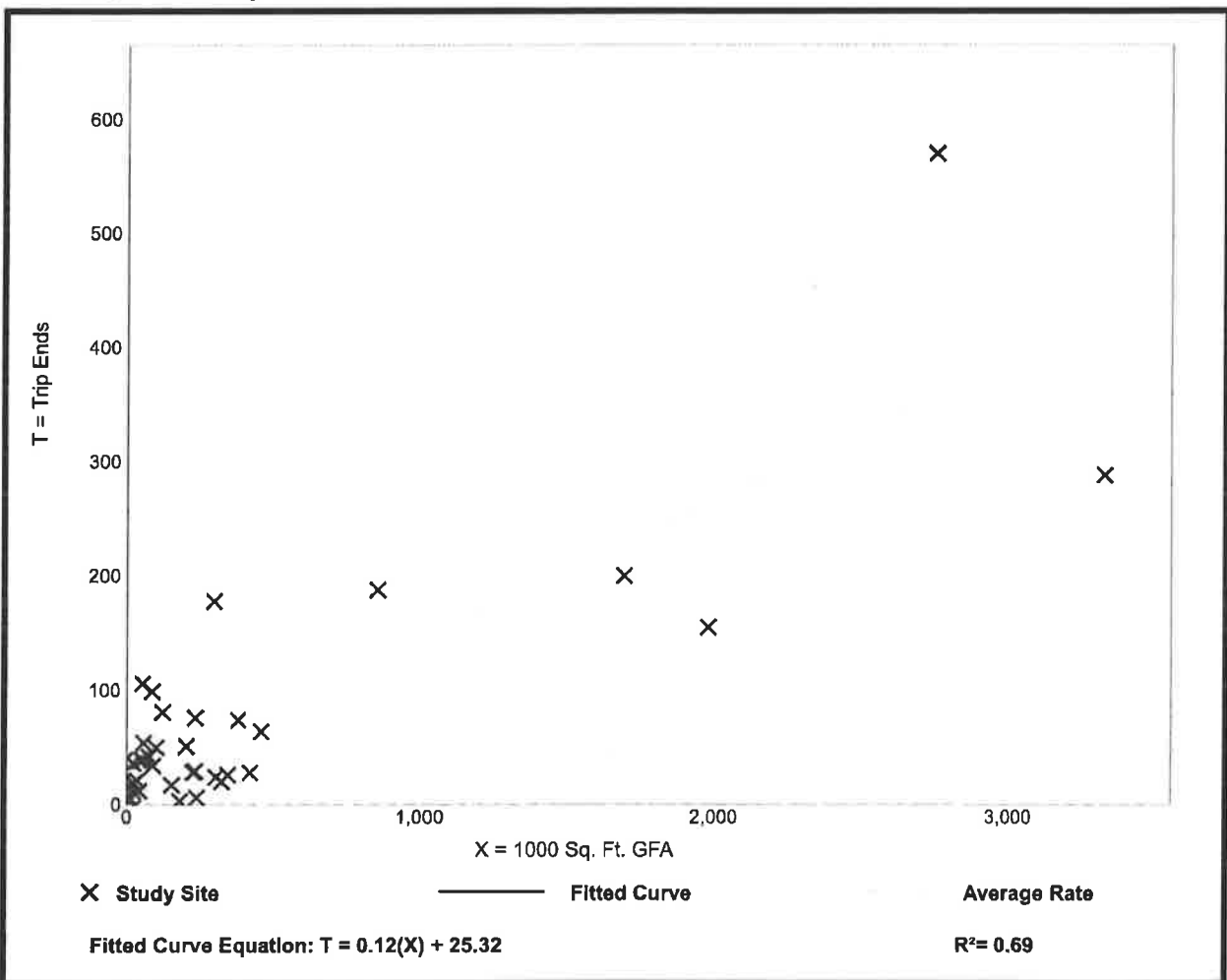
Warehousing (150)

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
 Directional Distribution: 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



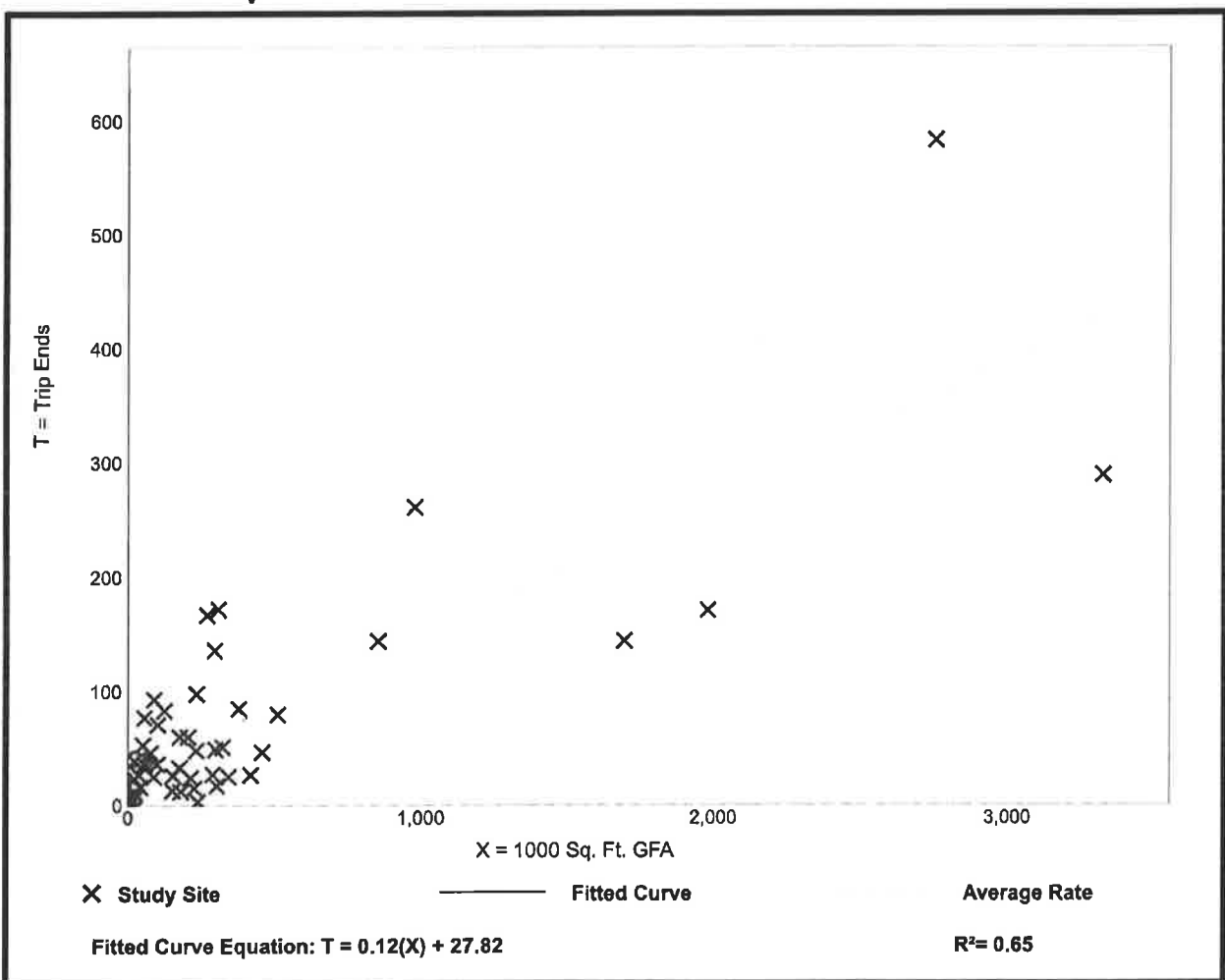
Warehousing (150)

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

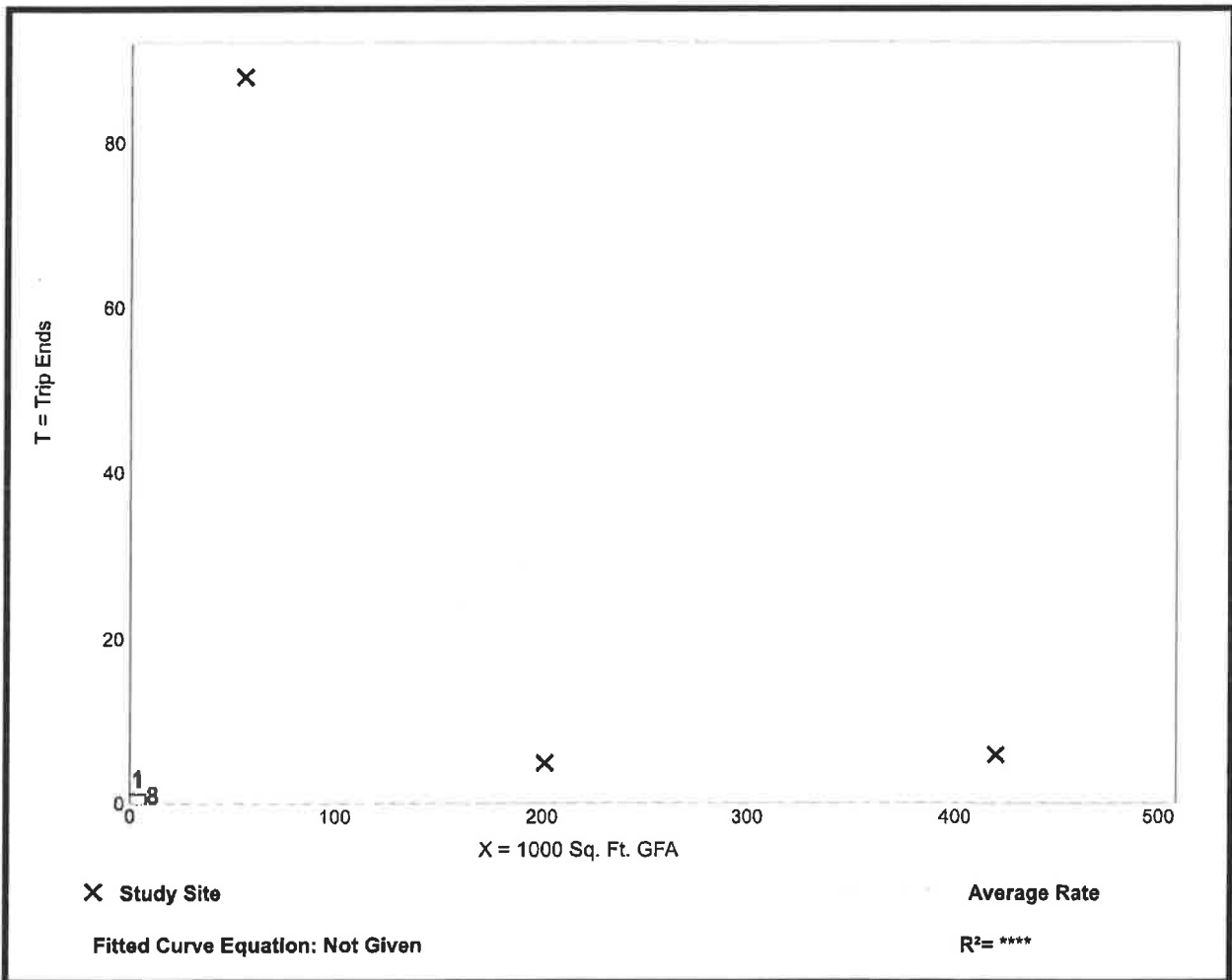
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 226
Directional Distribution: 50% entering, 50% exiting

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

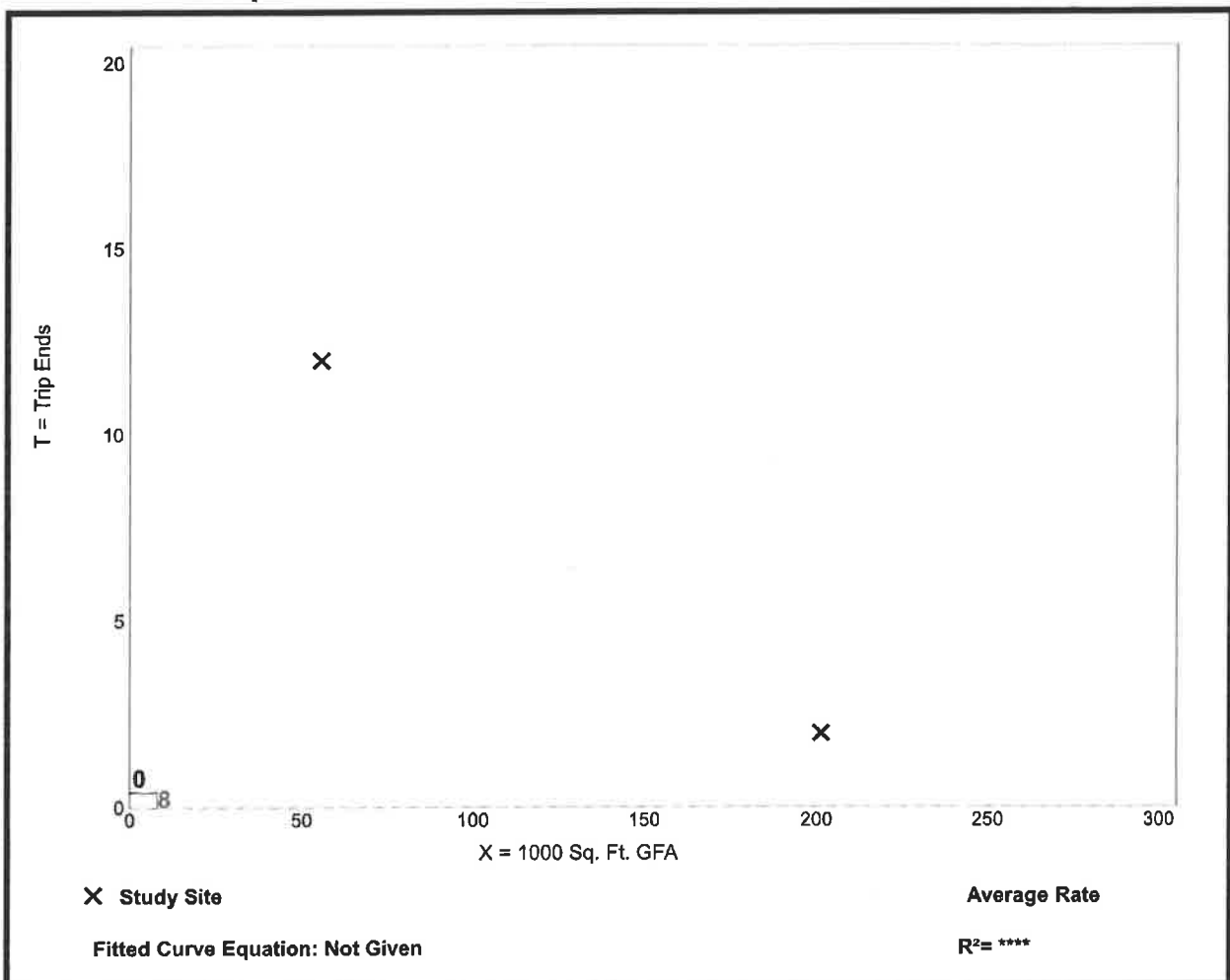
Setting/Location: General Urban/Suburban
 Number of Studies: 2
 Avg. 1000 Sq. Ft. GFA: 129
 Directional Distribution: 64% entering, 36% exiting

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)

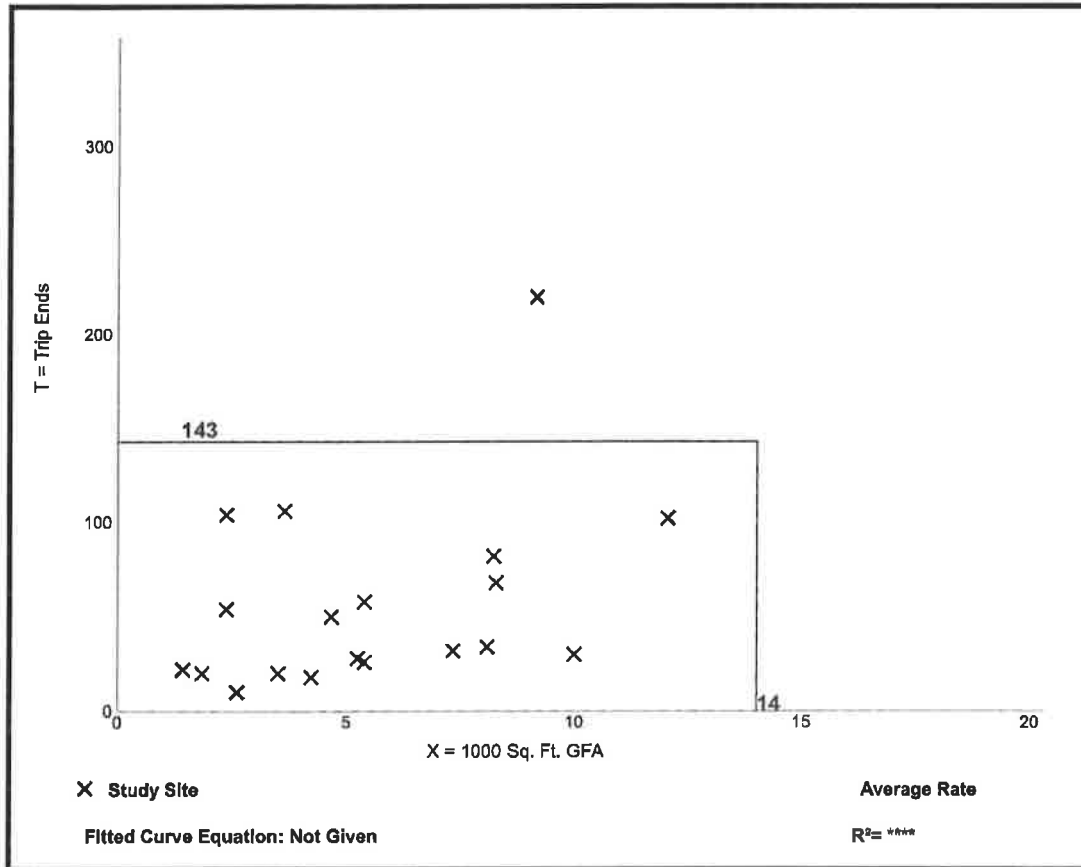
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

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



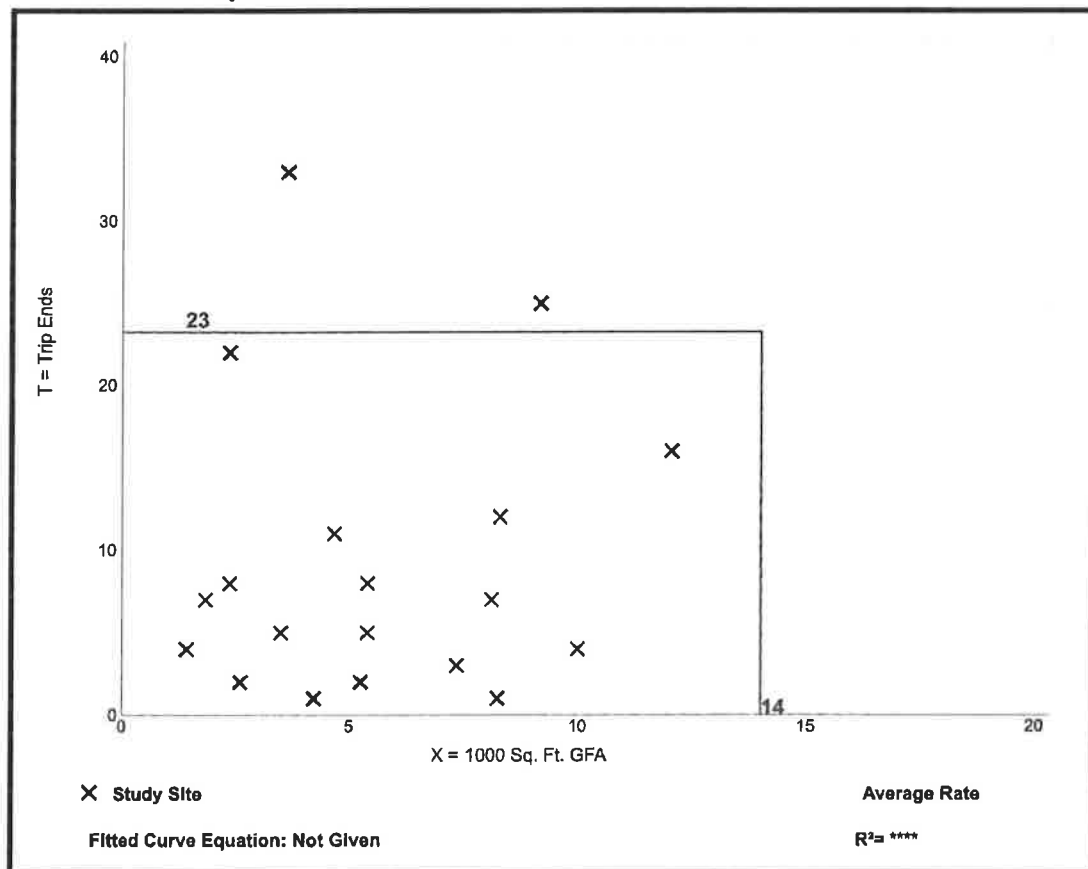
Specialty Trade Contractor (180)

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: 19
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 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



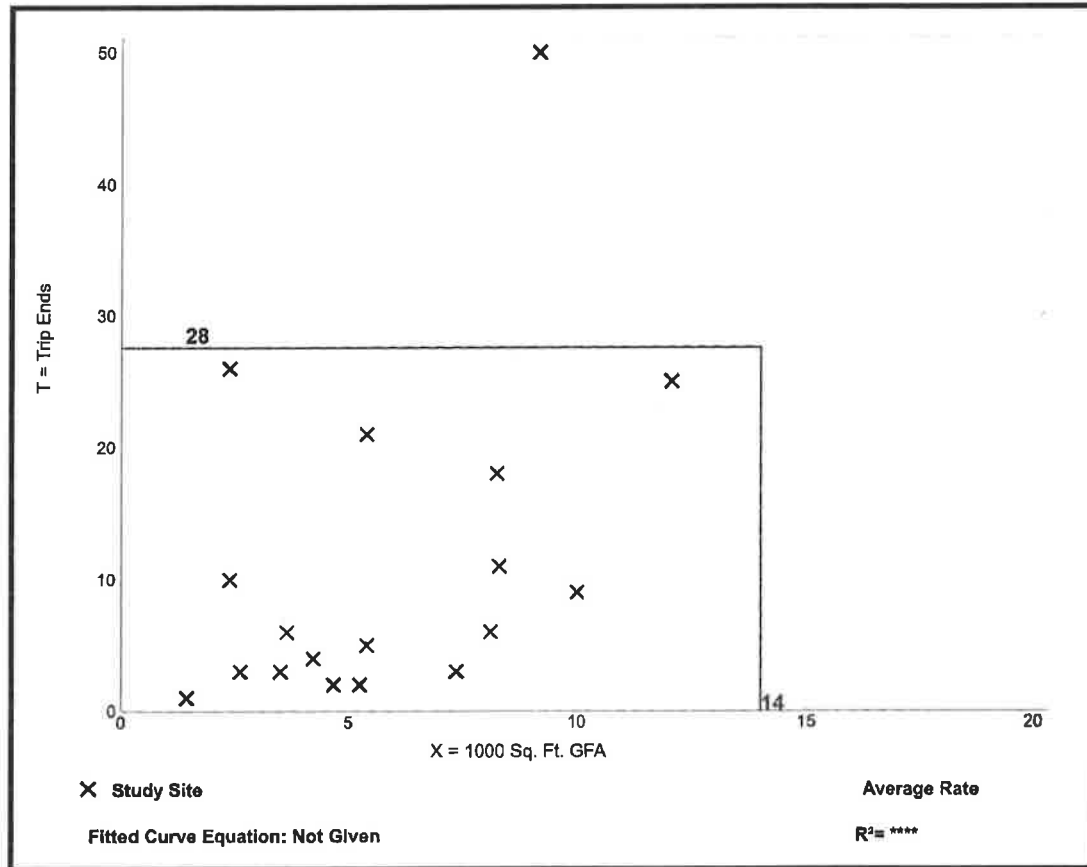
Specialty Trade Contractor (180)

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: 18
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 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)

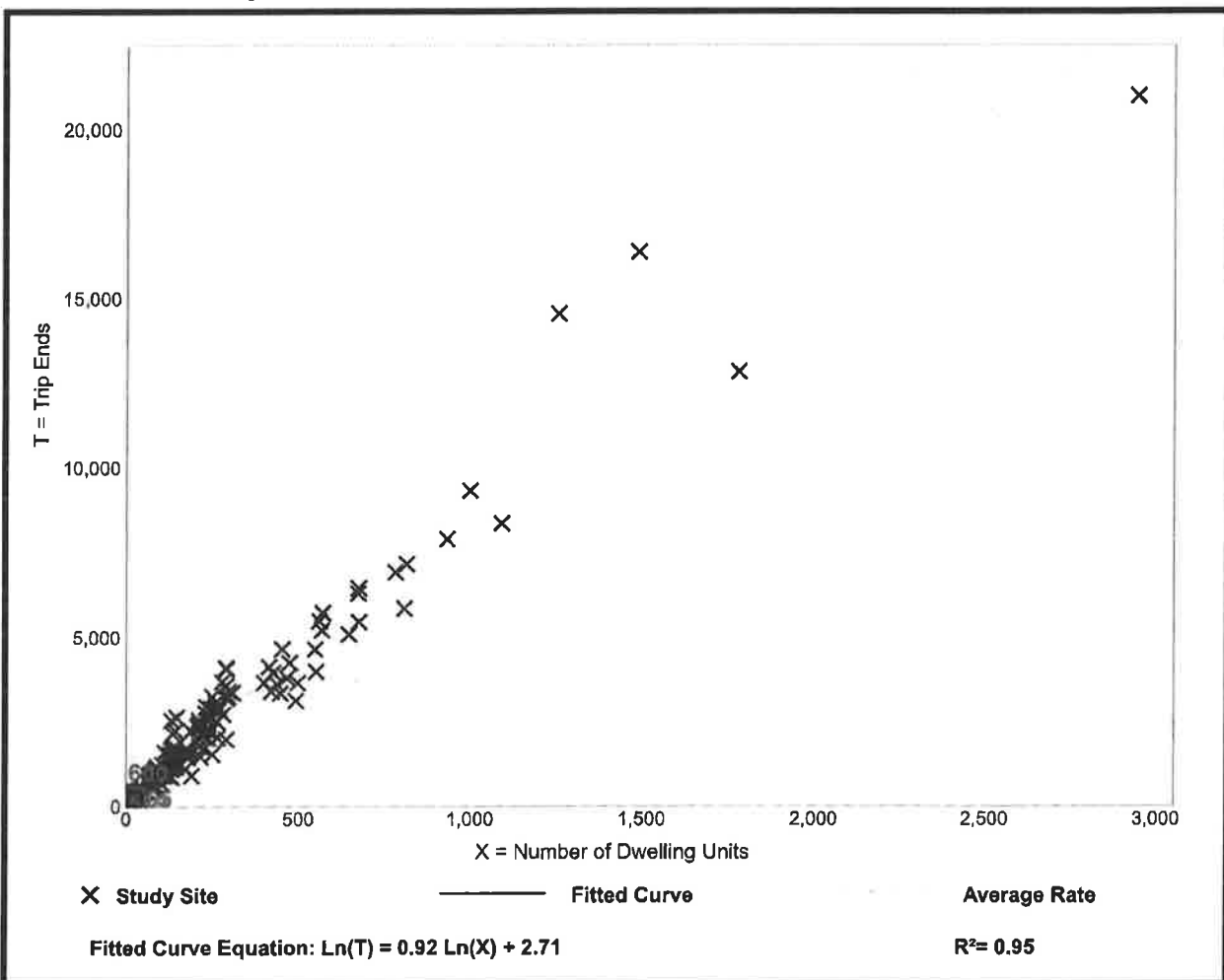
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

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)

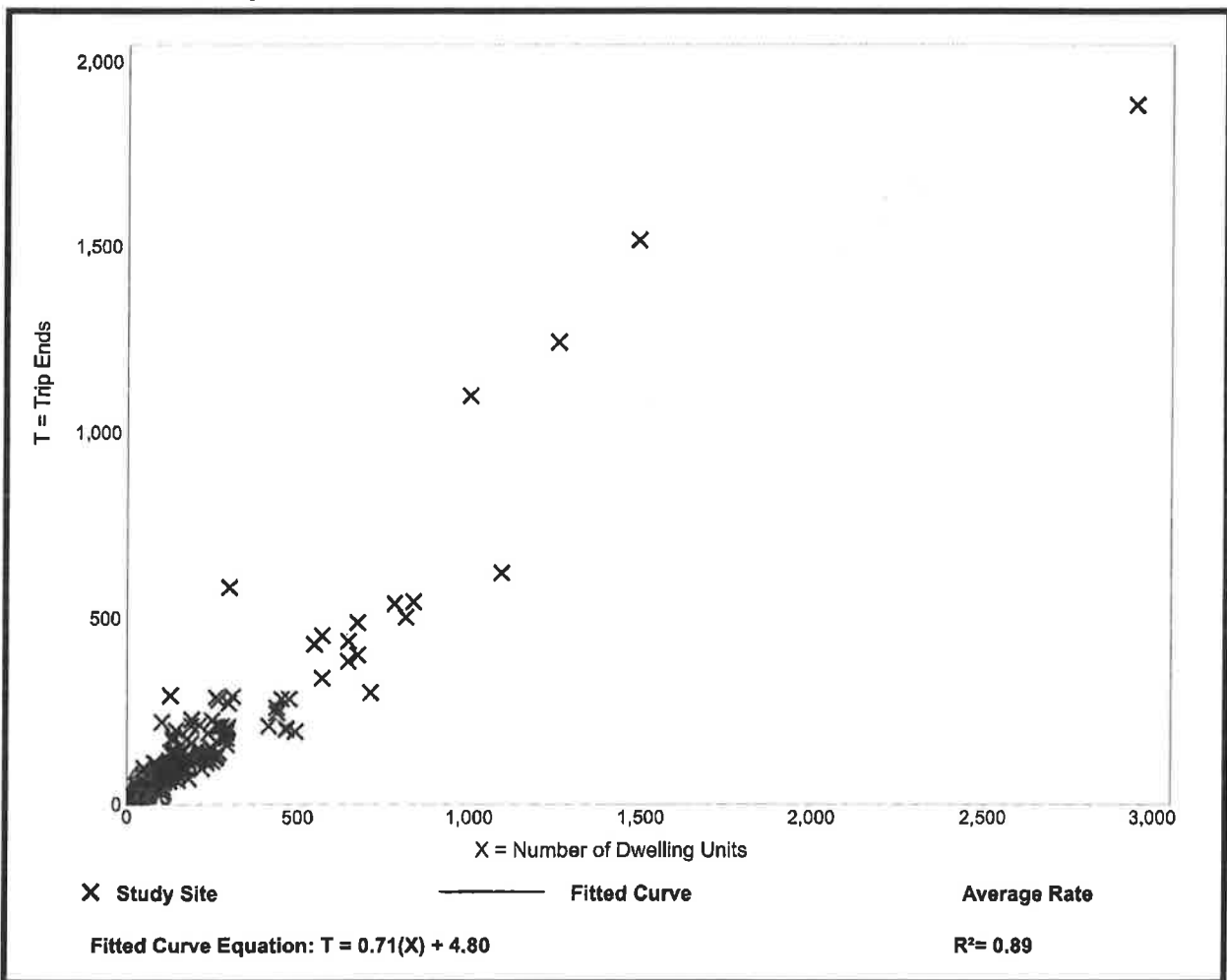
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 173
 Avg. Num. of Dwelling Units: 219
 Directional Distribution: 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

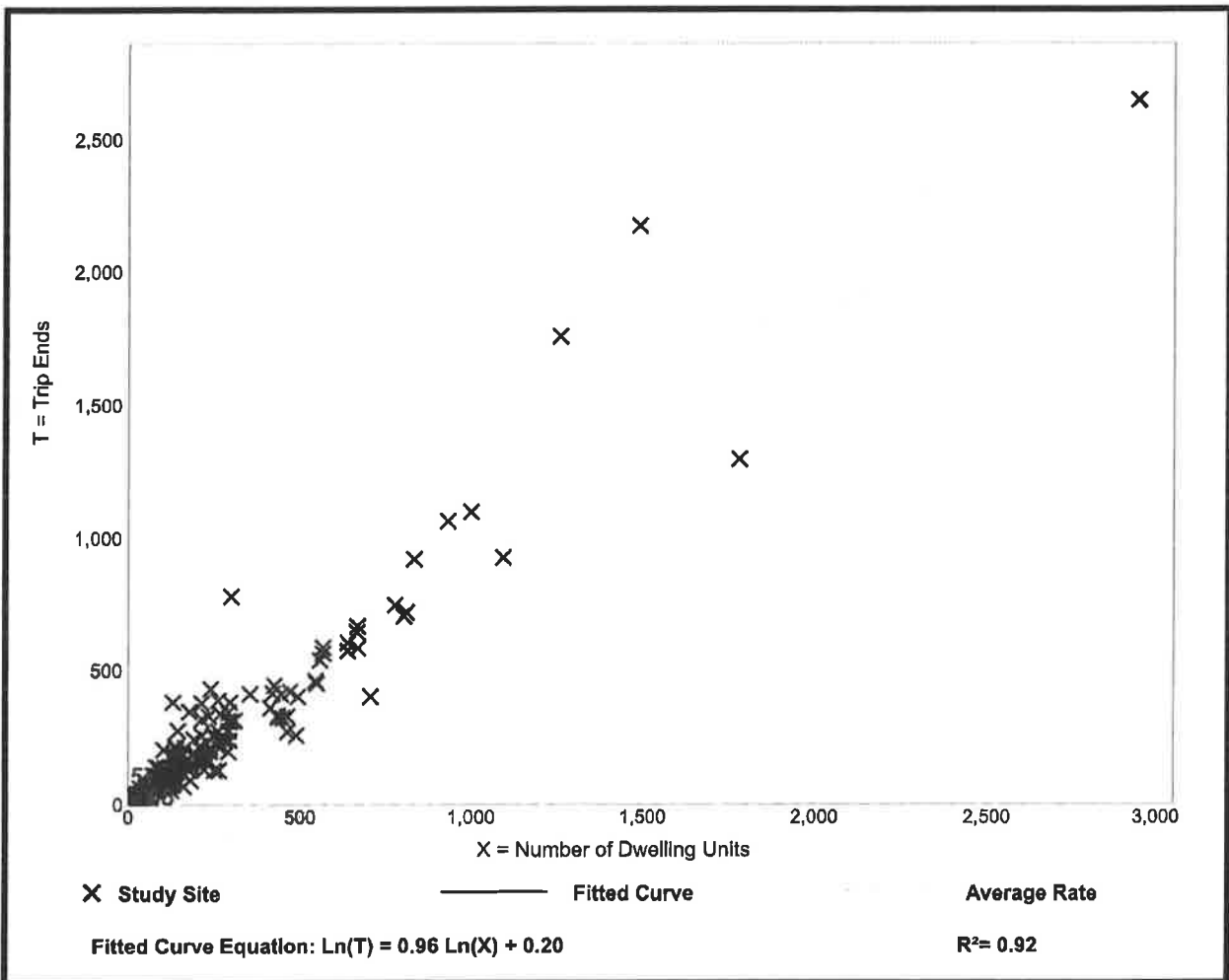
Avg. Num. of Dwelling Units: 242

Directional Distribution: 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 (210)

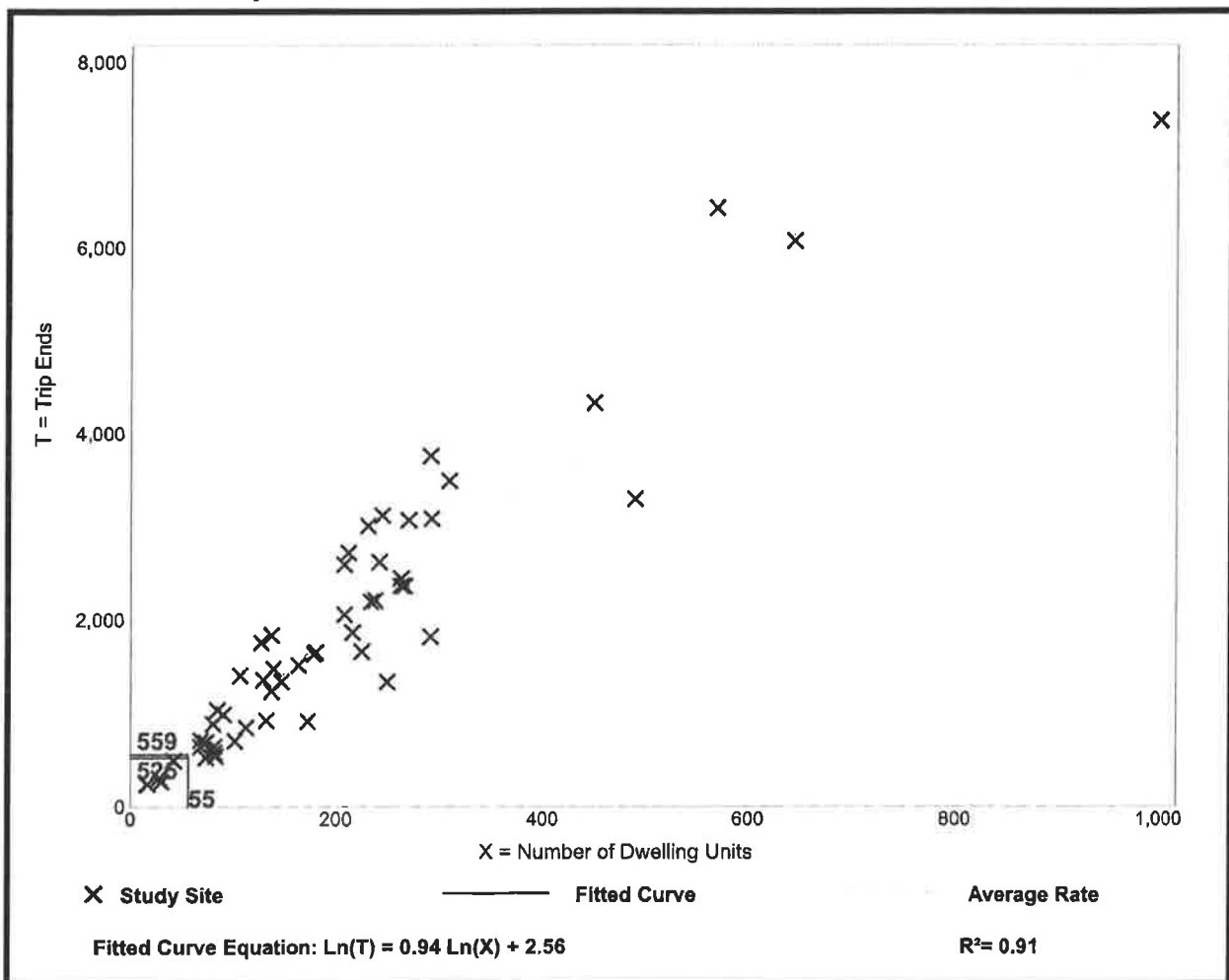
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 52
Avg. Num. of Dwelling Units: 207
Directional Distribution: 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)

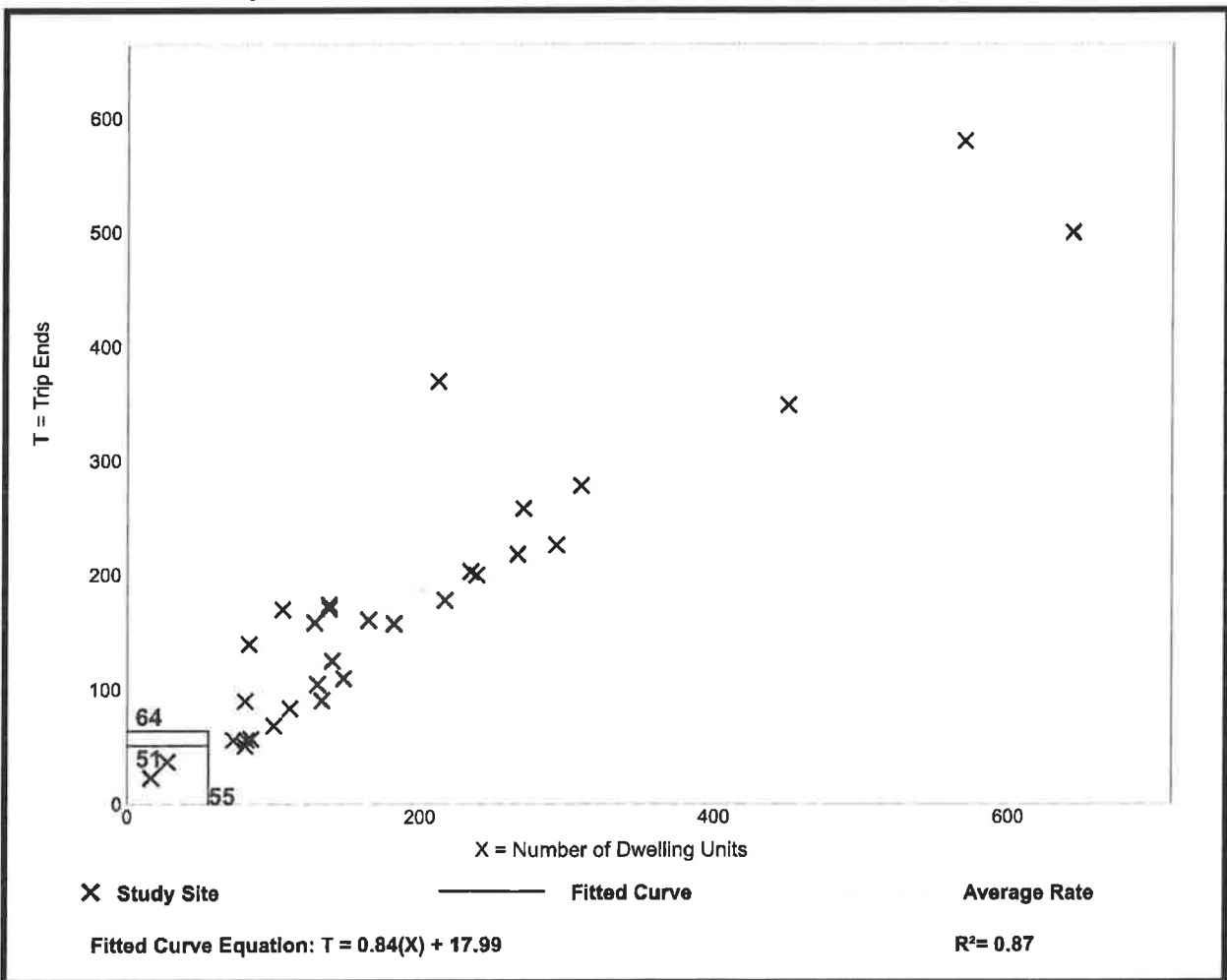
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 31
 Avg. Num. of Dwelling 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

Data Plot and Equation



General Office Building (710)

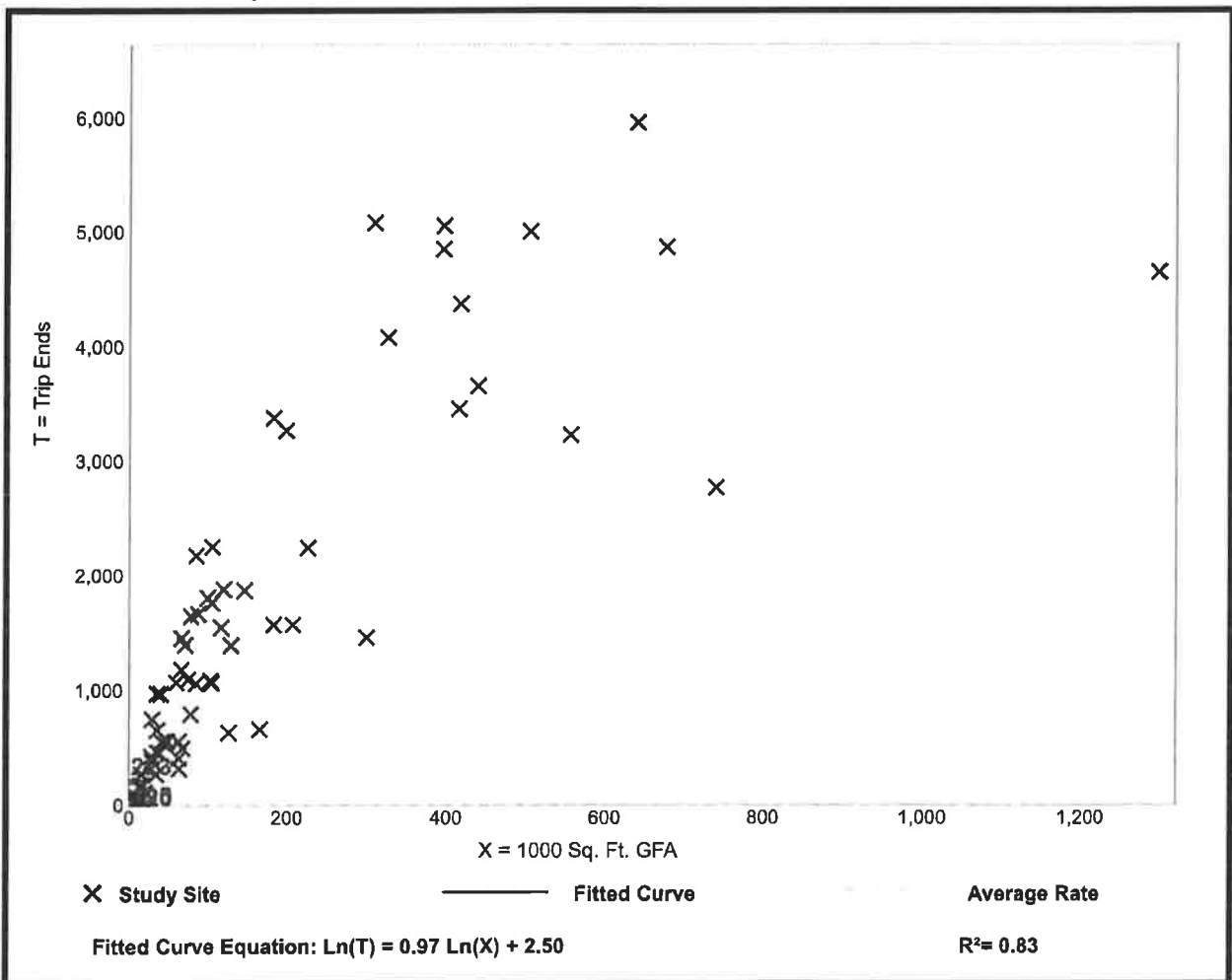
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

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

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.74	2.71 - 27.56	5.15

Data Plot and Equation



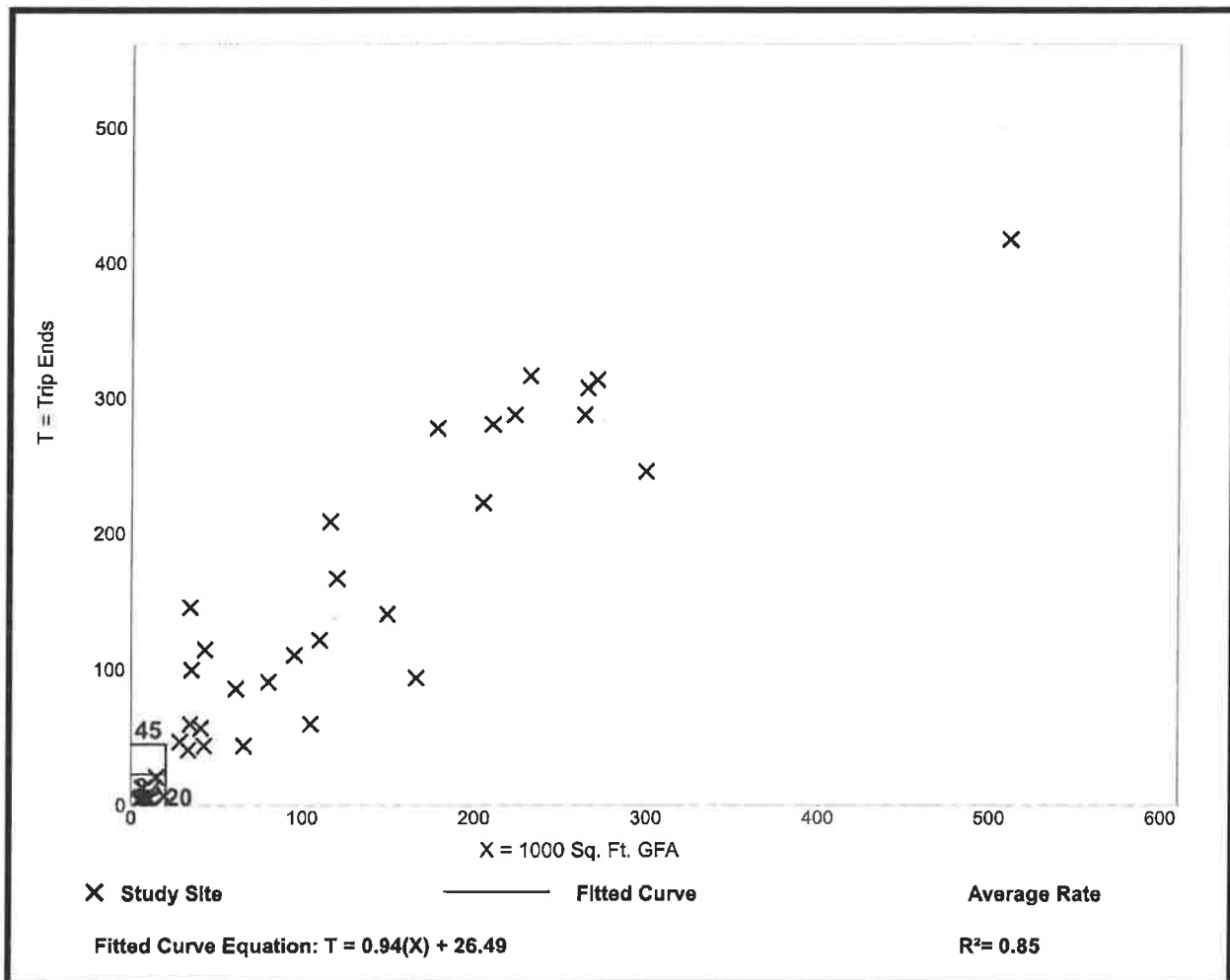
General Office Building (710)

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: 35
 Avg. 1000 Sq. Ft. GFA: 117
 Directional Distribution: 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



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

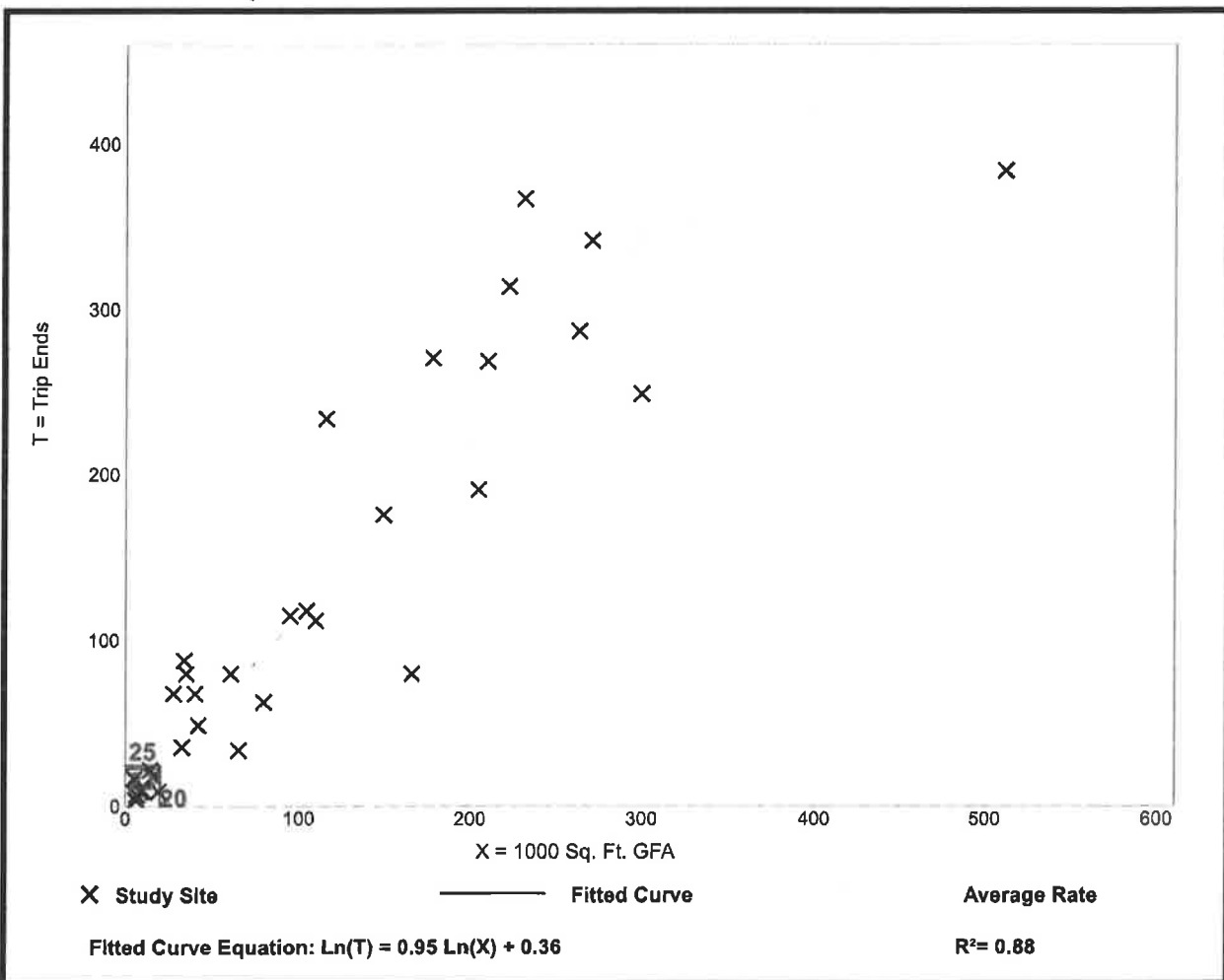
General Office Building (710)

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: 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

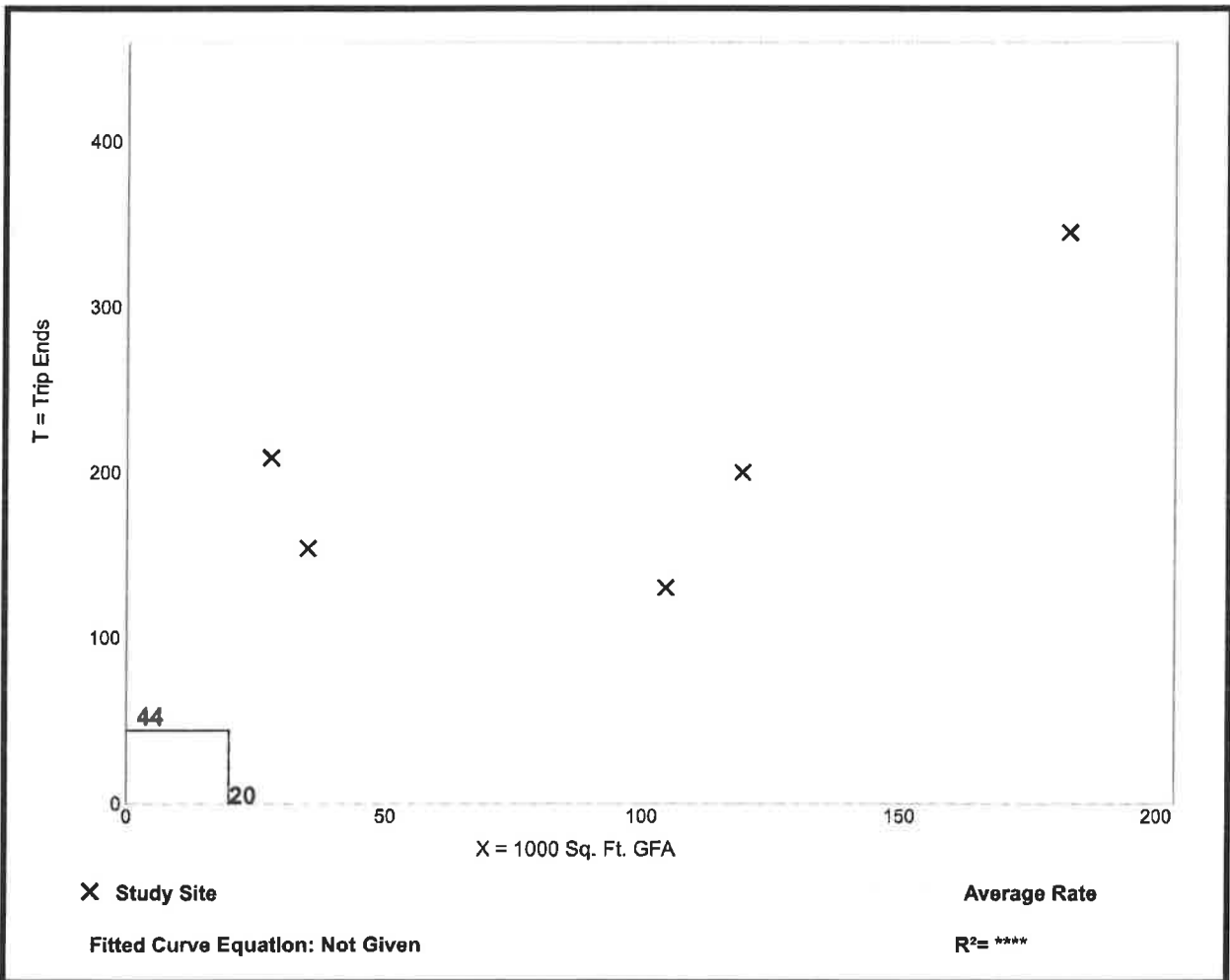
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 94
Directional Distribution: 50% entering, 50% exiting

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

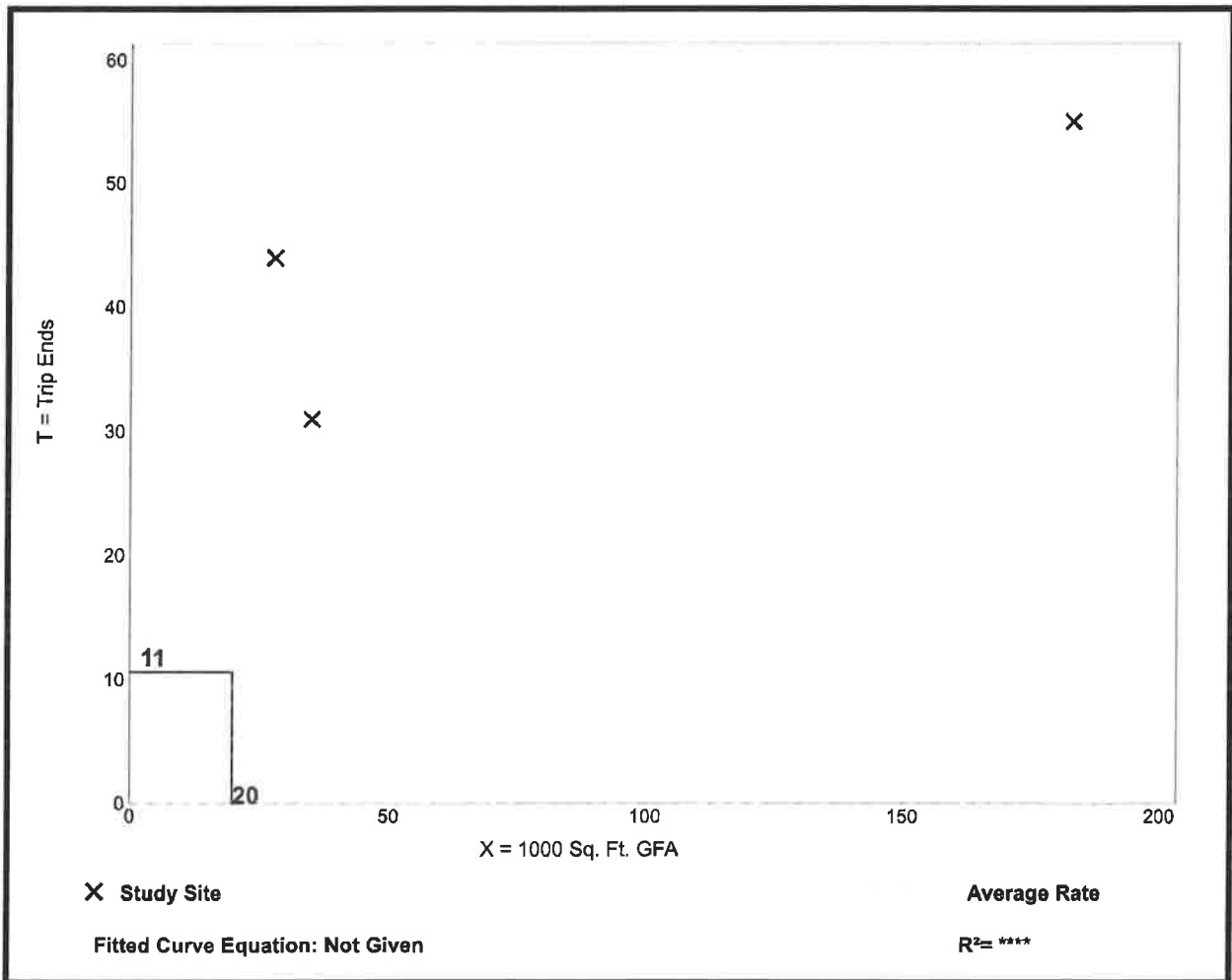
Setting/Location: General Urban/Suburban
Number of Studies: 3
Avg. 1000 Sq. Ft. GFA: 82
Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.53	0.30 - 1.57	0.52

Data Plot and Equation

Caution – Small Sample Size



Government Office Building (730)

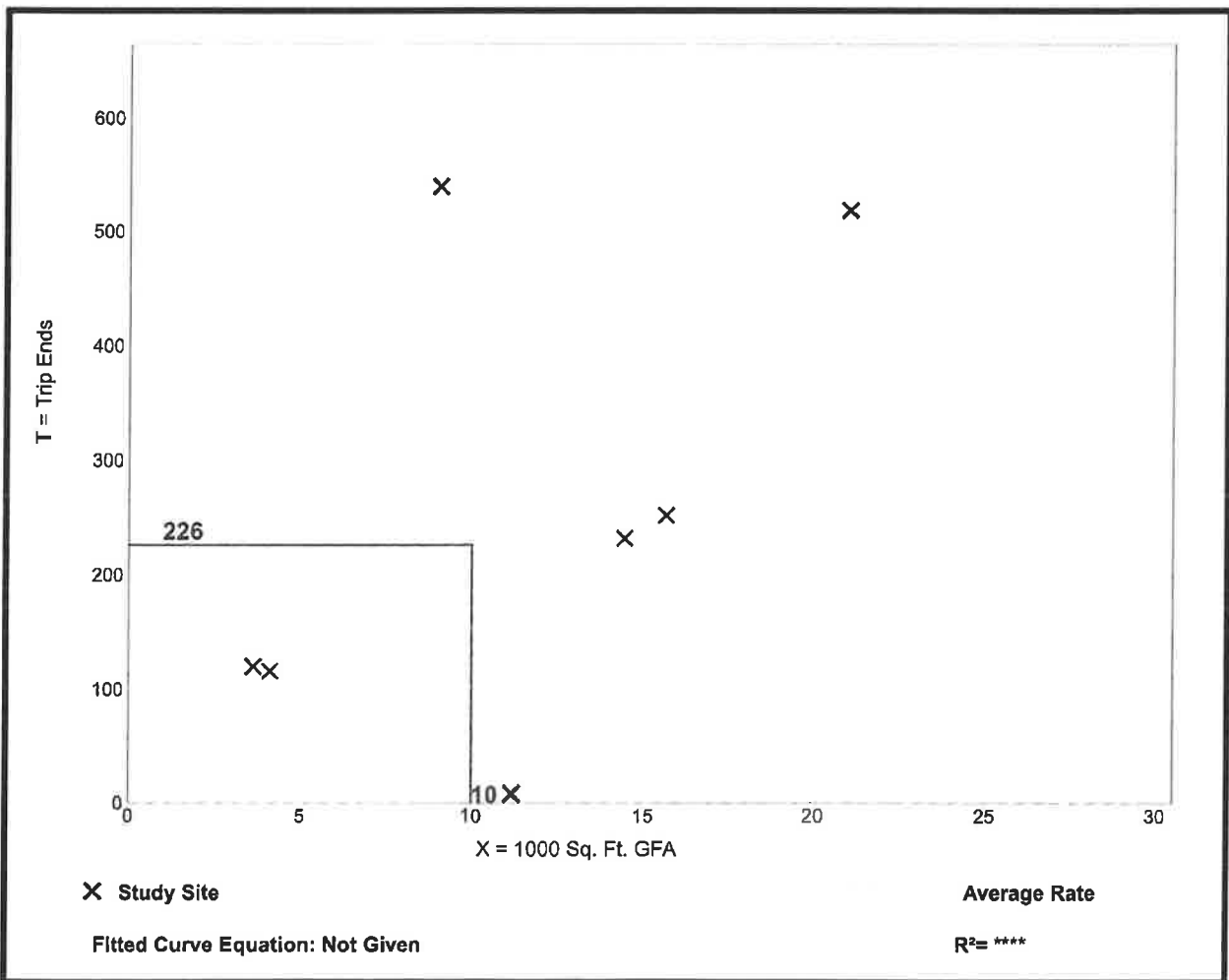
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
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



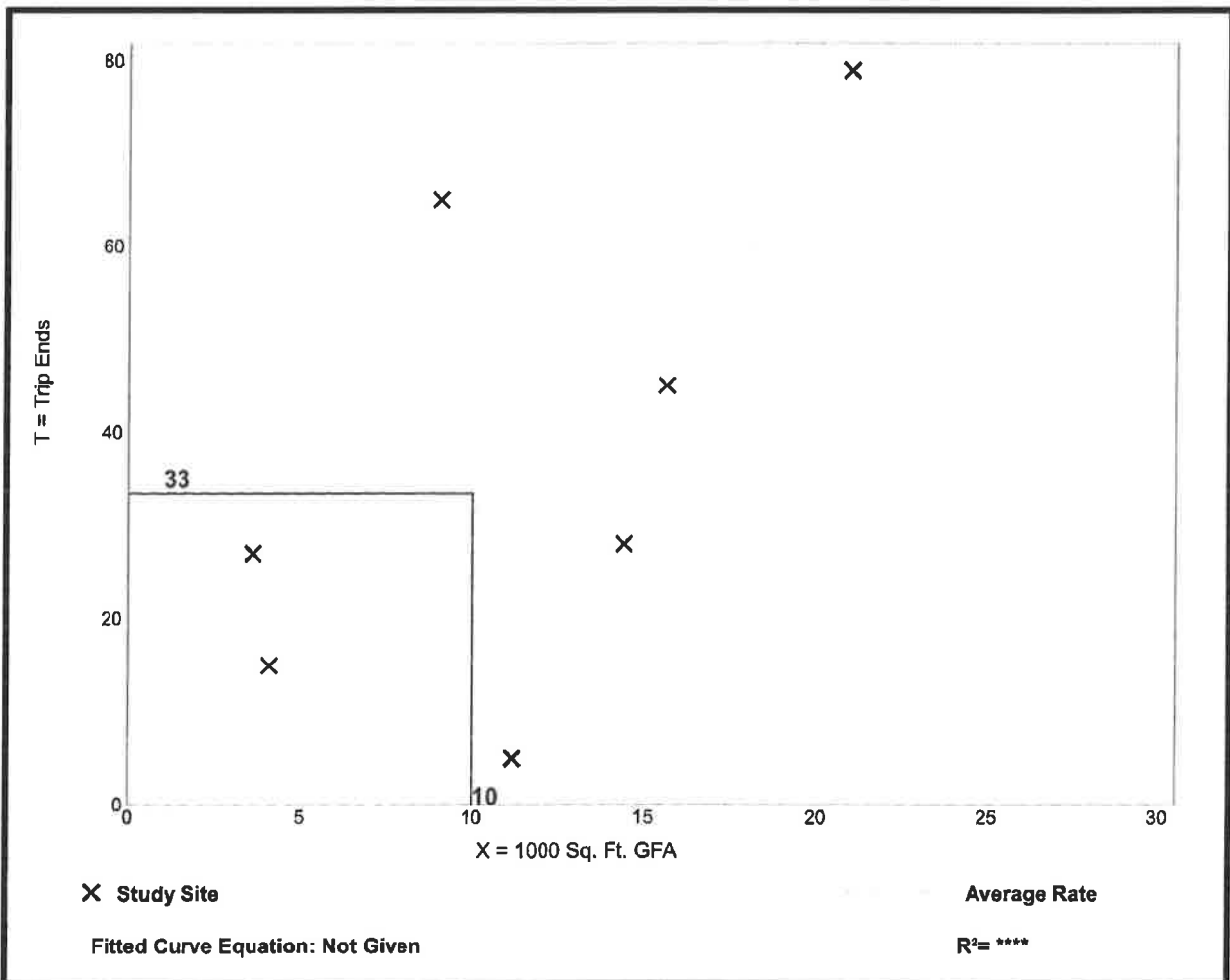
Government Office Building (730)

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
 Directional Distribution: 75% entering, 25% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.34	0.45 - 7.38	2.18

Data Plot and Equation



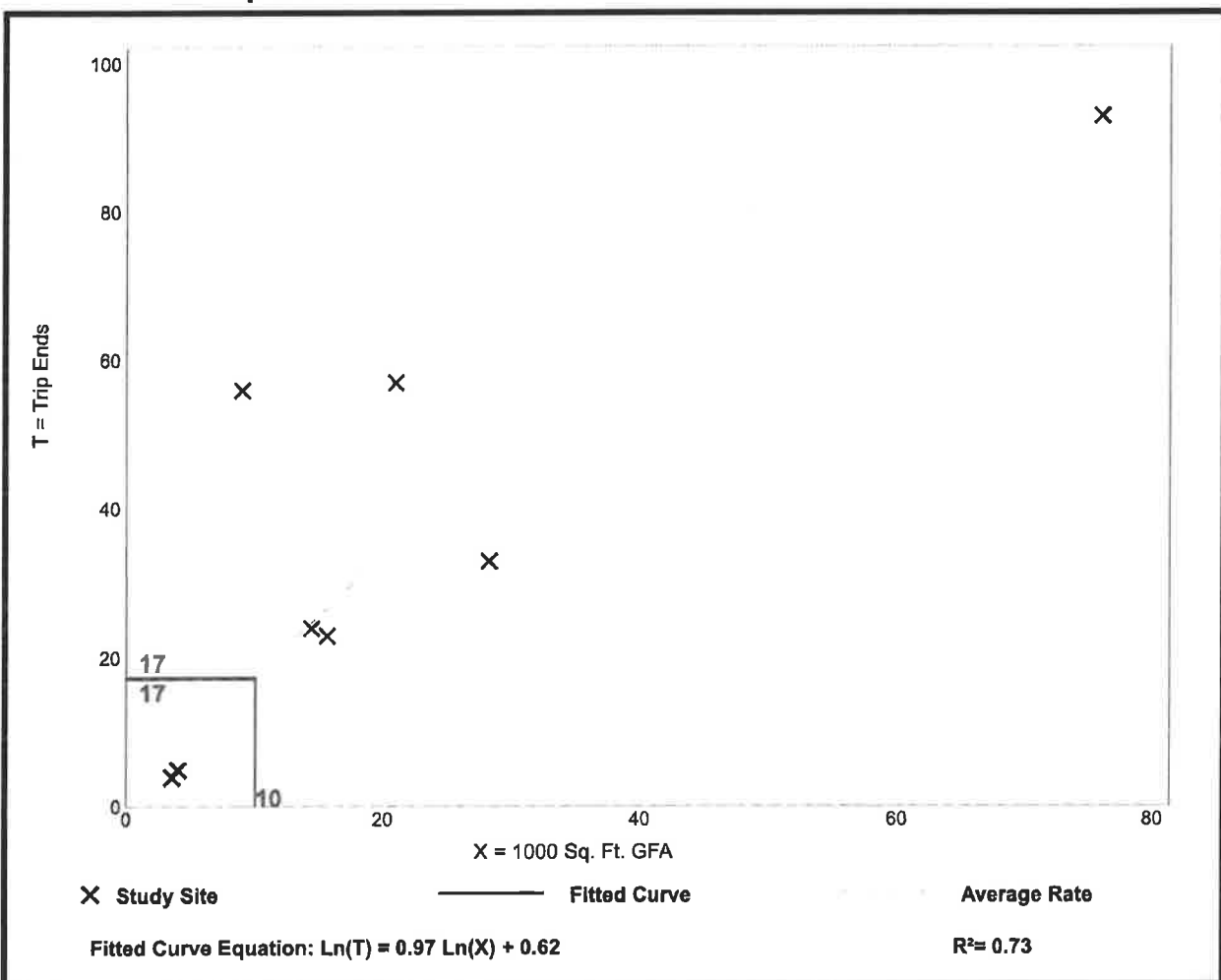
Government Office Building (730)

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
 Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	1.09 - 6.19	1.24

Data Plot and Equation



Shopping Center (820)

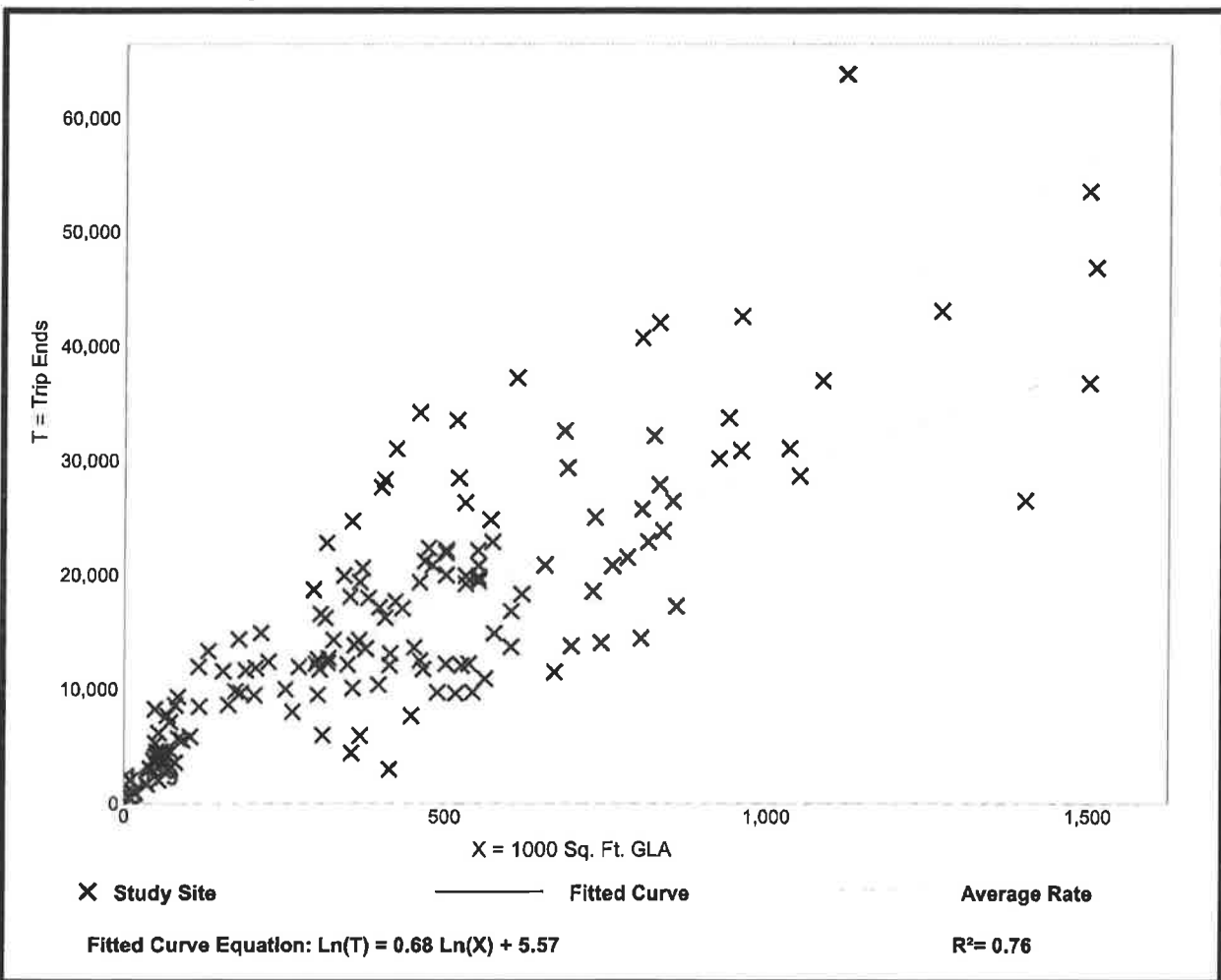
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 147
Avg. 1000 Sq. Ft. GLA: 453
Directional Distribution: 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



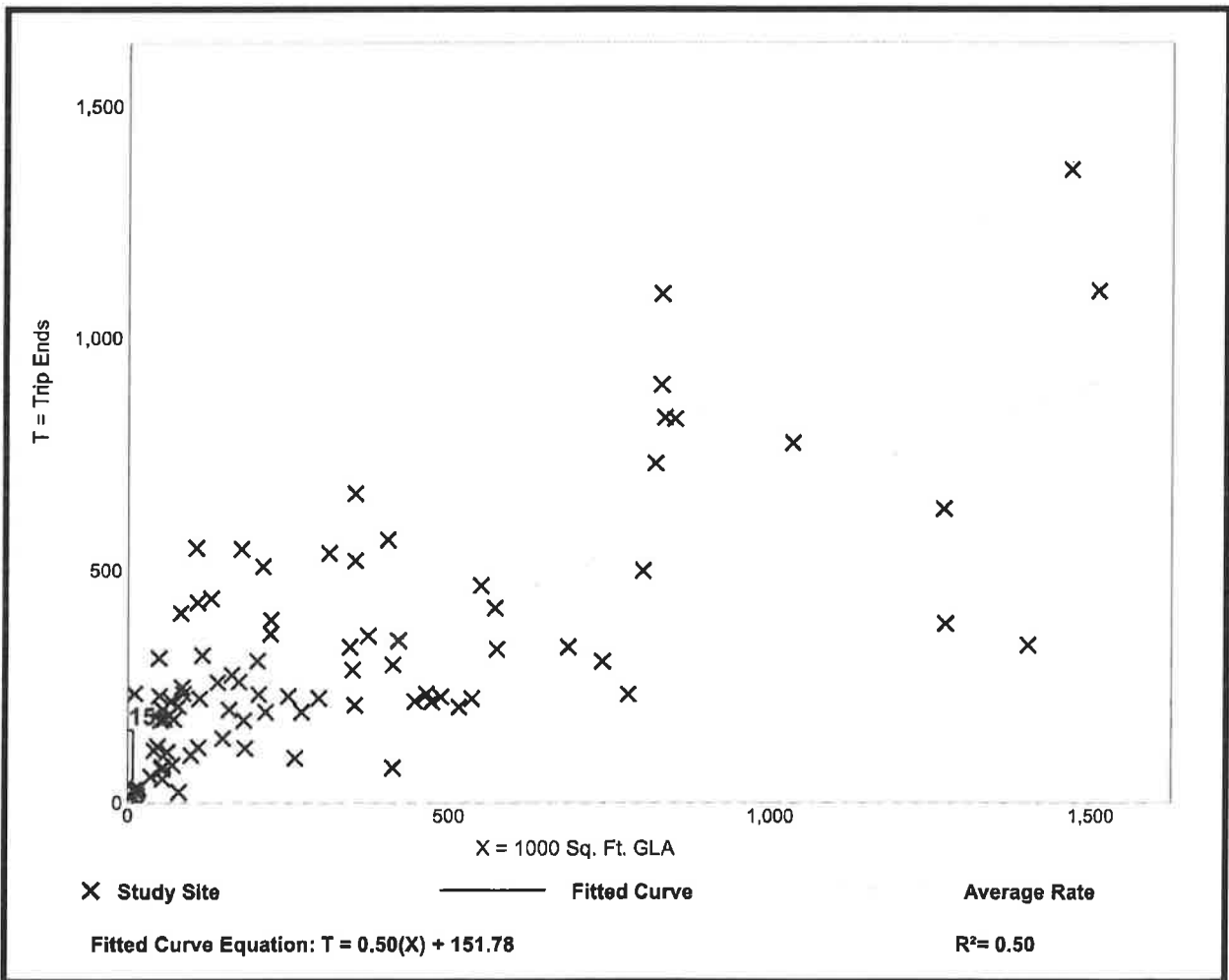
Shopping Center (820)

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
 Directional Distribution: 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



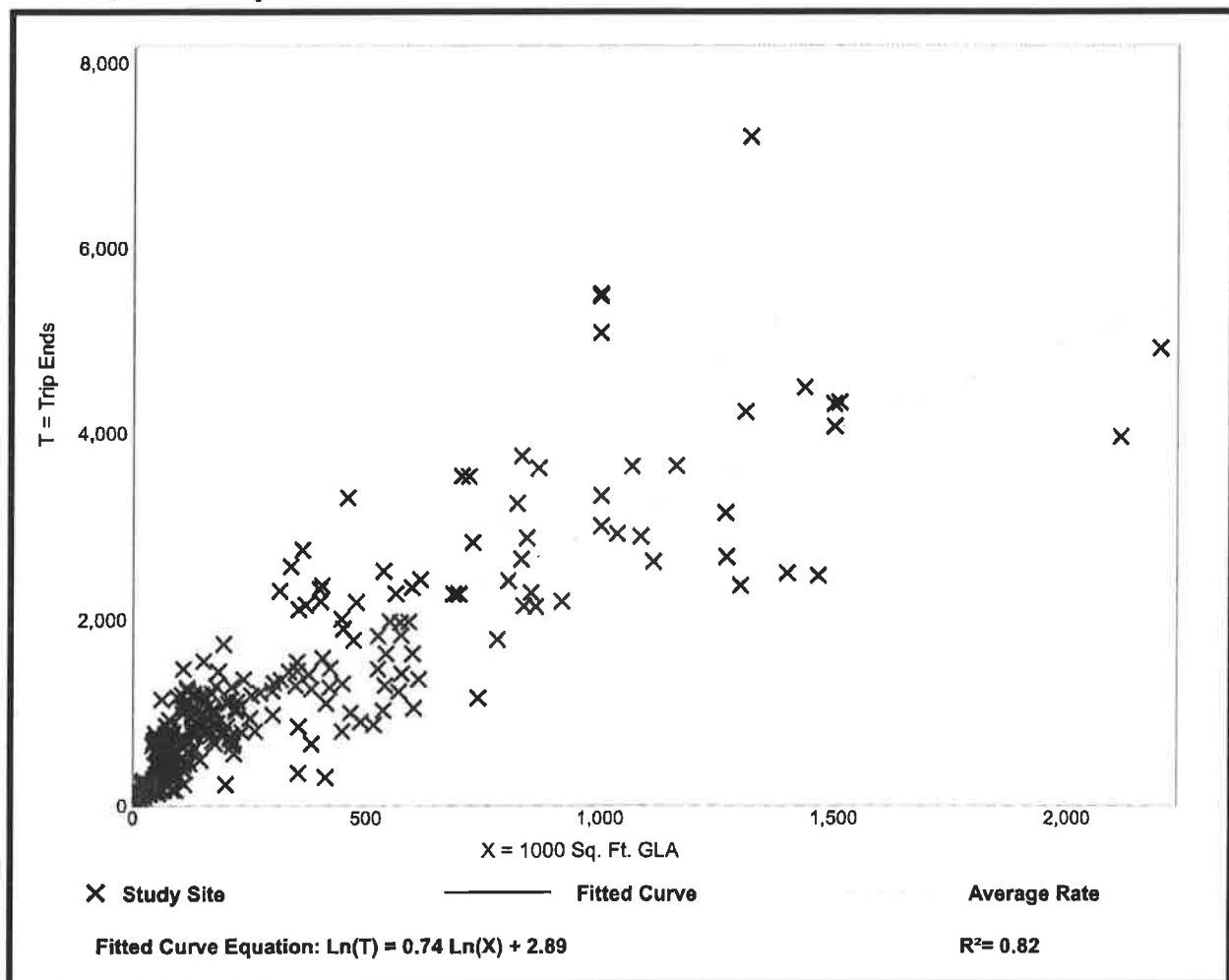
Shopping Center (820)

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
 Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



Shopping Center (820)

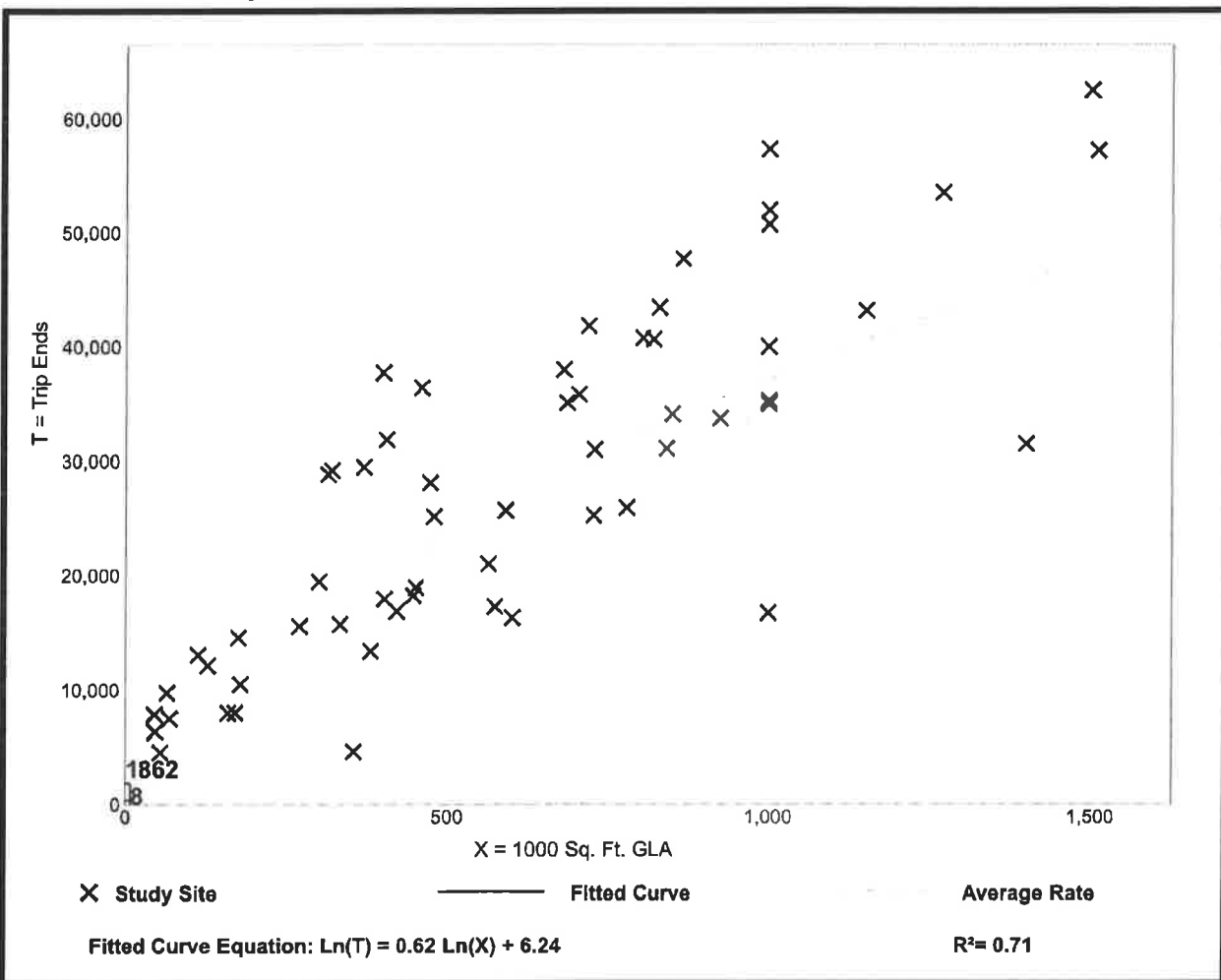
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday

Setting/Location: General Urban/Suburban
Number of Studies: 58
Avg. 1000 Sq. Ft. GLA: 602
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
46.12	13.01 - 167.89	17.91

Data Plot and Equation



Shopping Center (820)

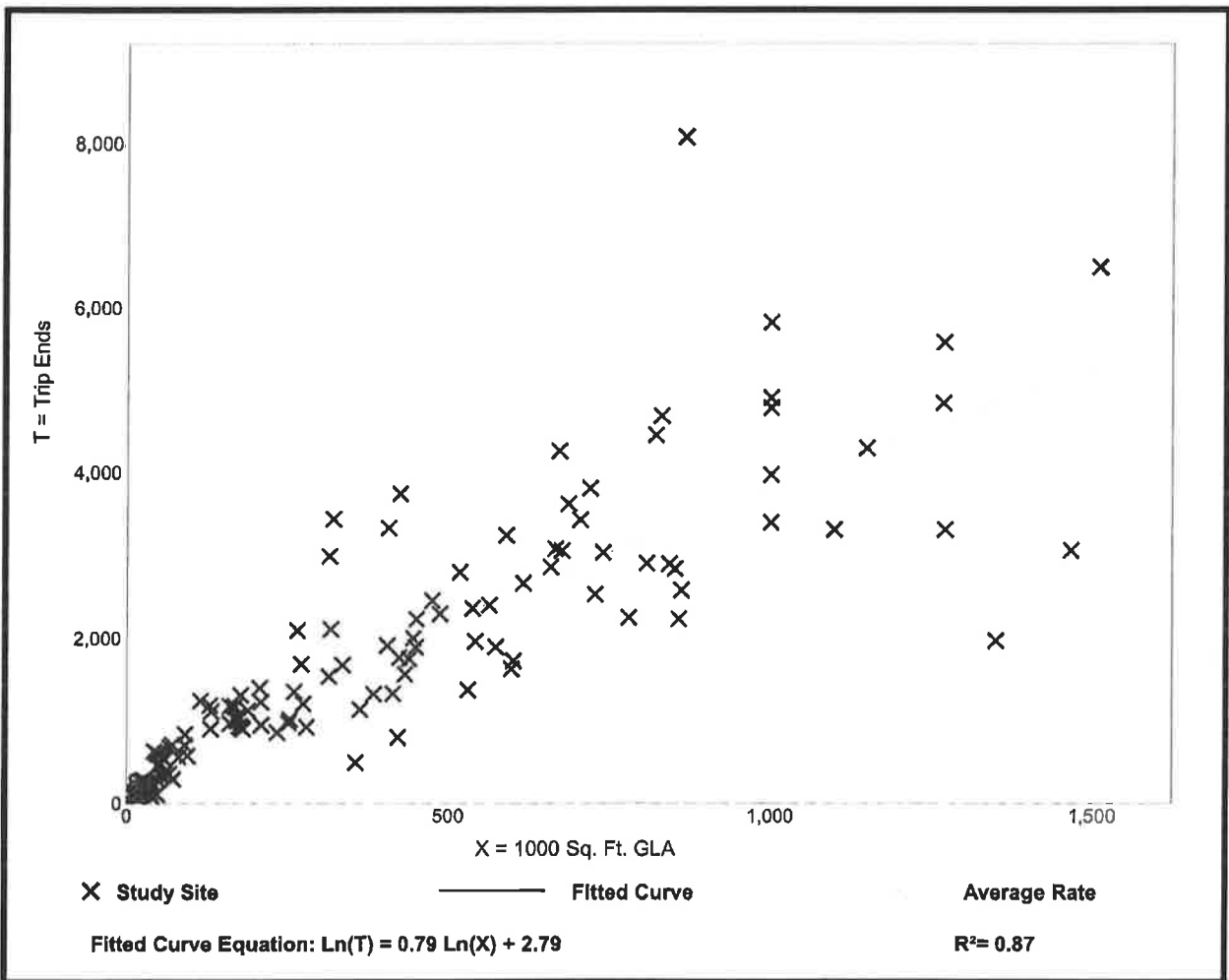
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 119
 Avg. 1000 Sq. Ft. GLA: 416
 Directional Distribution: 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)

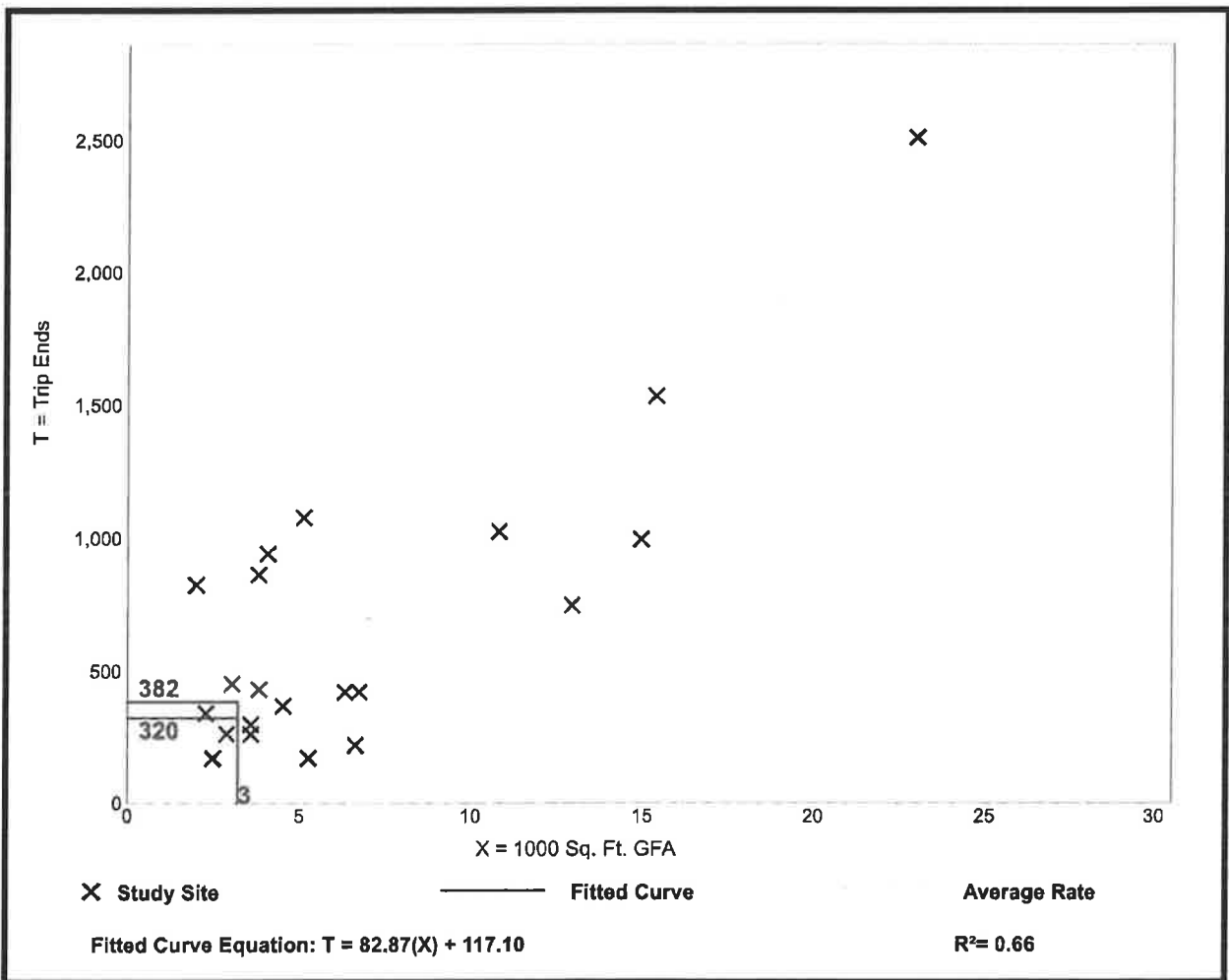
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

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



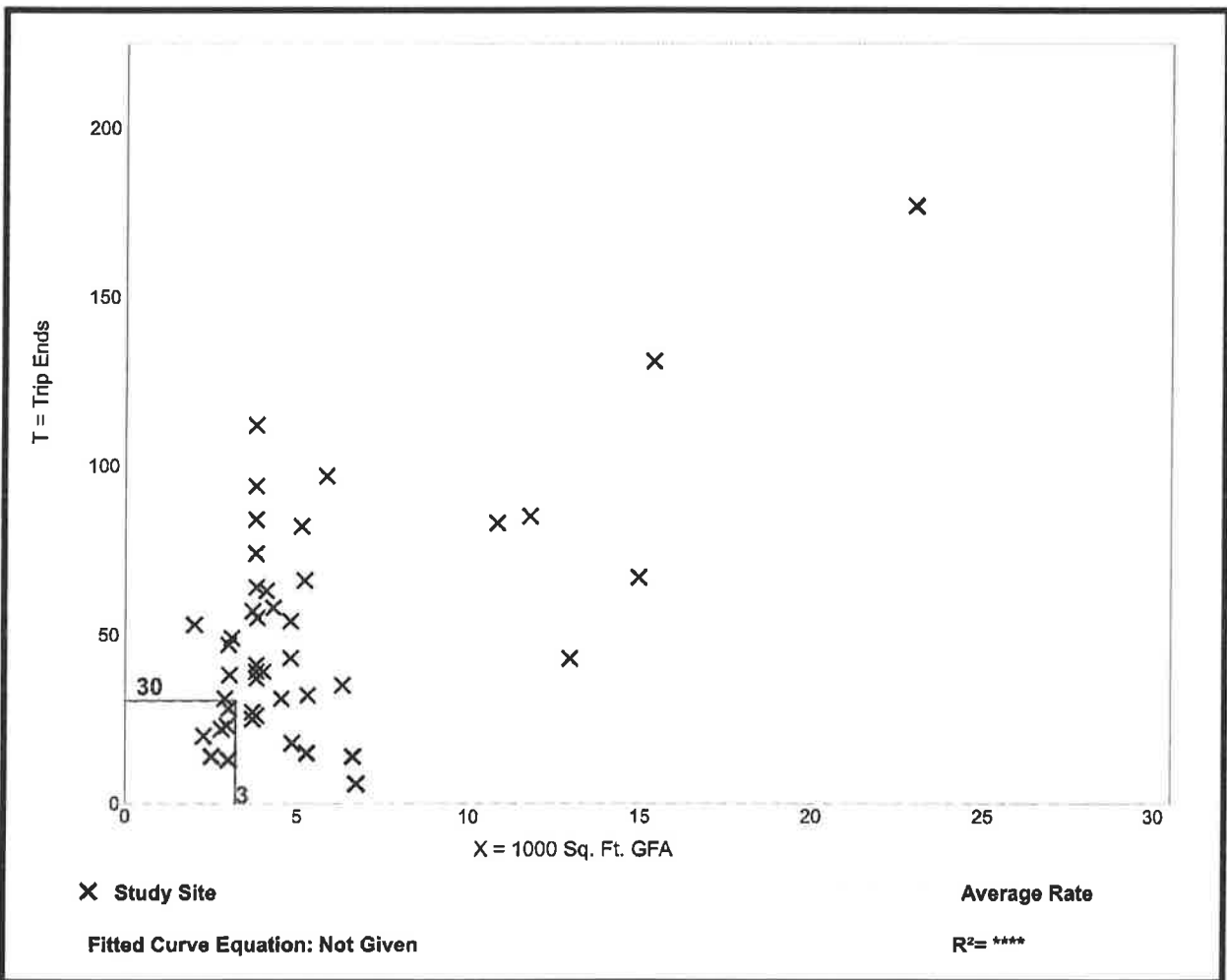
Drive-in Bank (912)

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
 Directional Distribution: 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



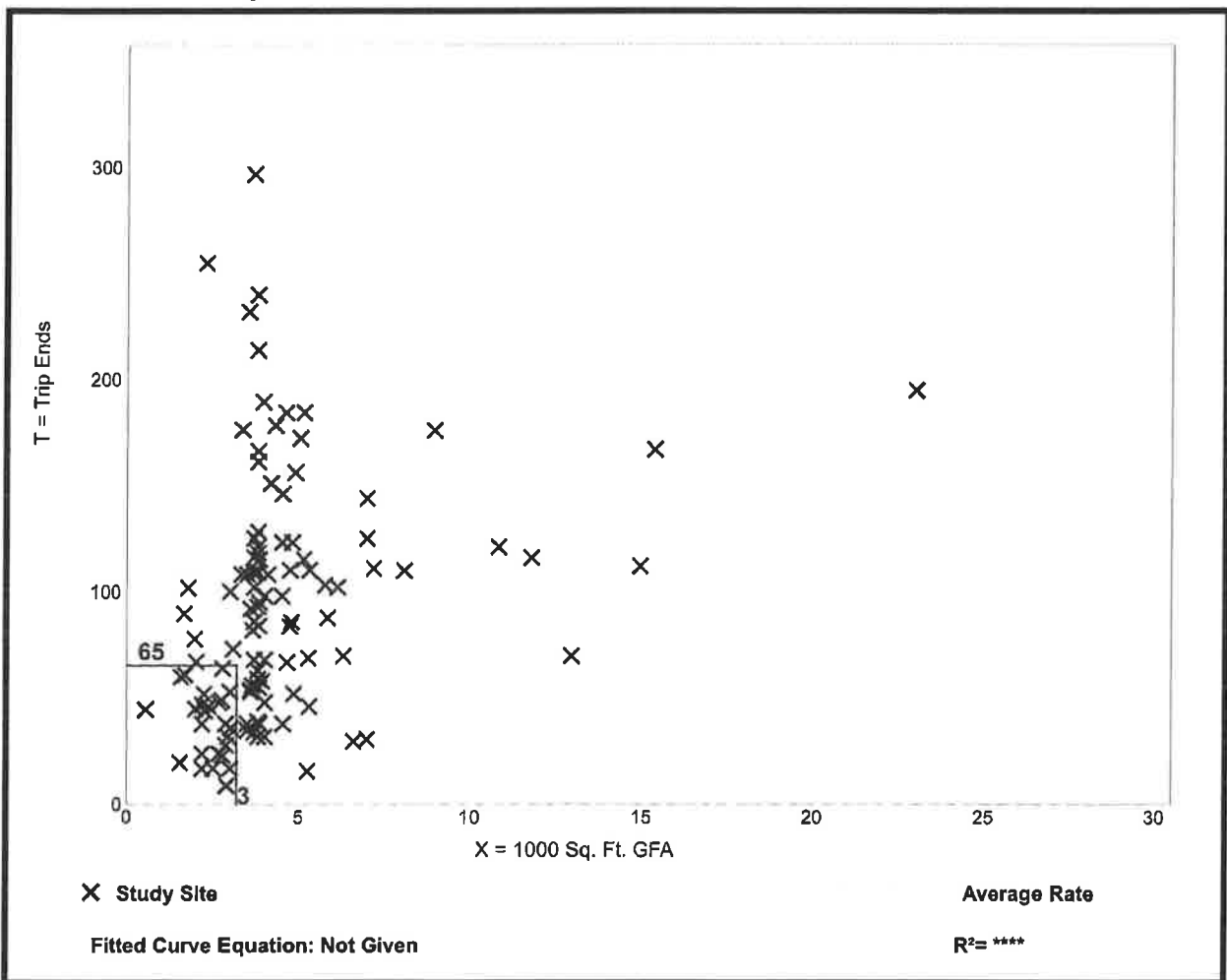
Drive-in Bank (912)

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: 115
 Avg. 1000 Sq. Ft. GFA: 4
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
20.45	3.04 - 109.91	15.01

Data Plot and Equation



Drive-in Bank (912)

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

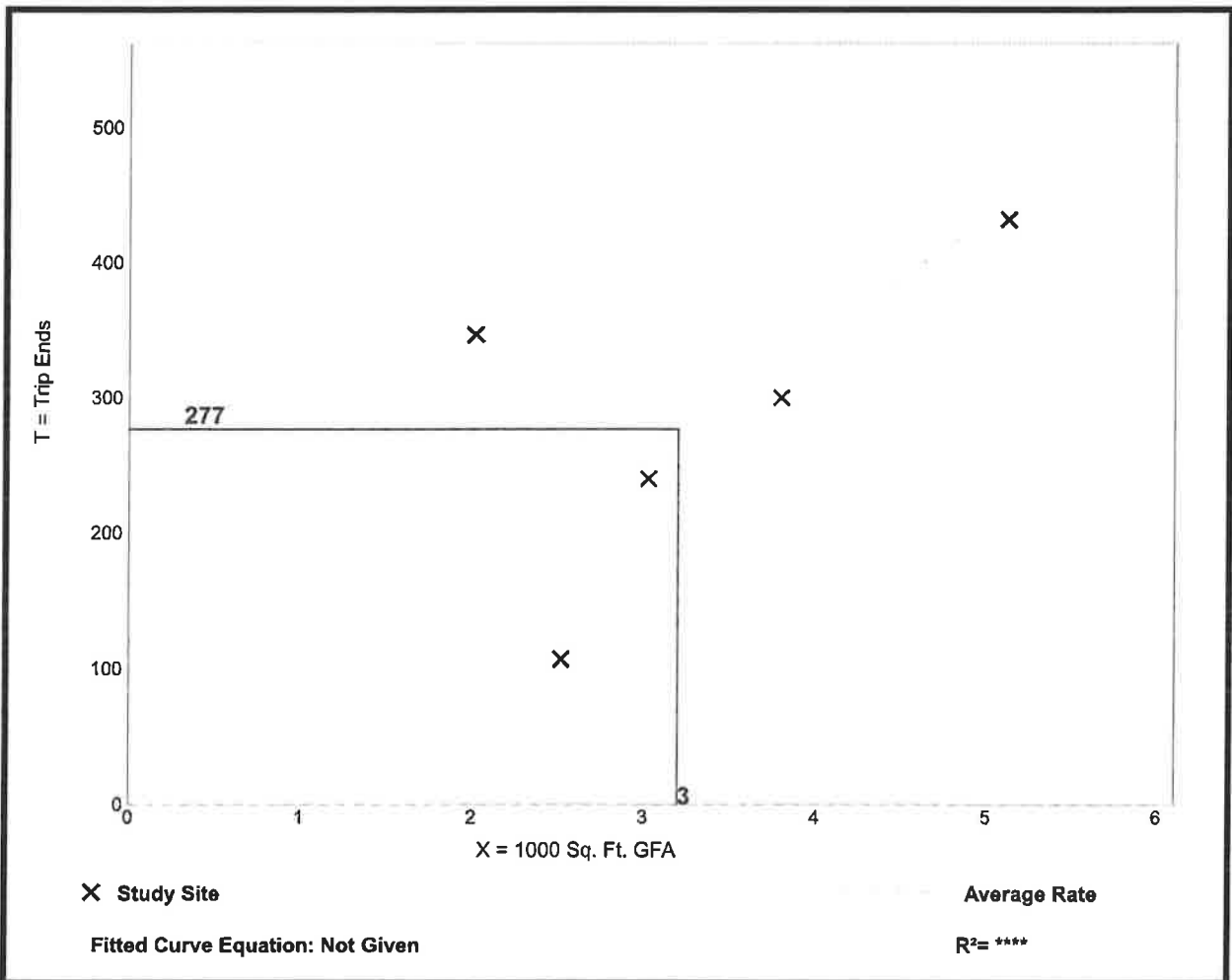
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

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)

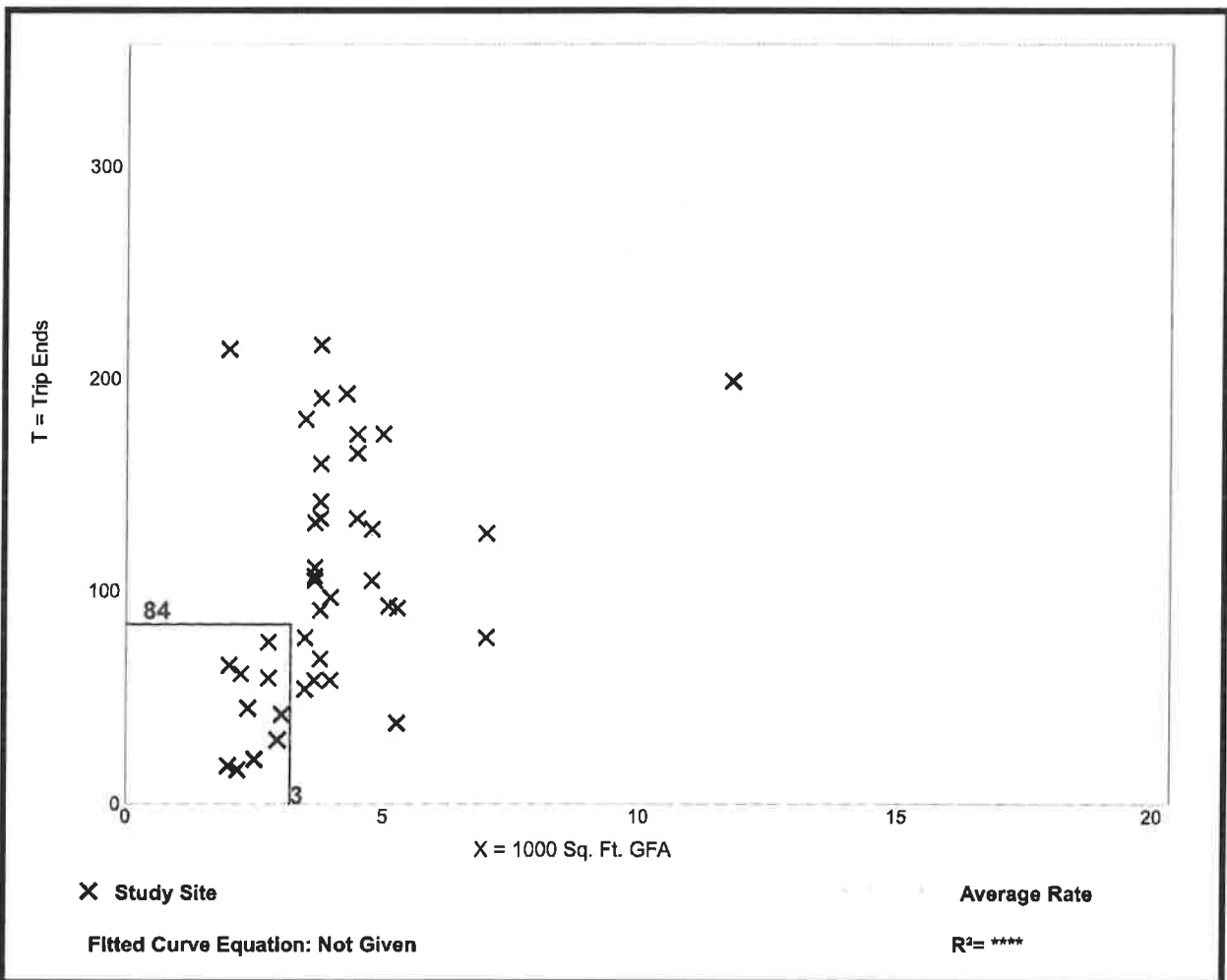
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

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

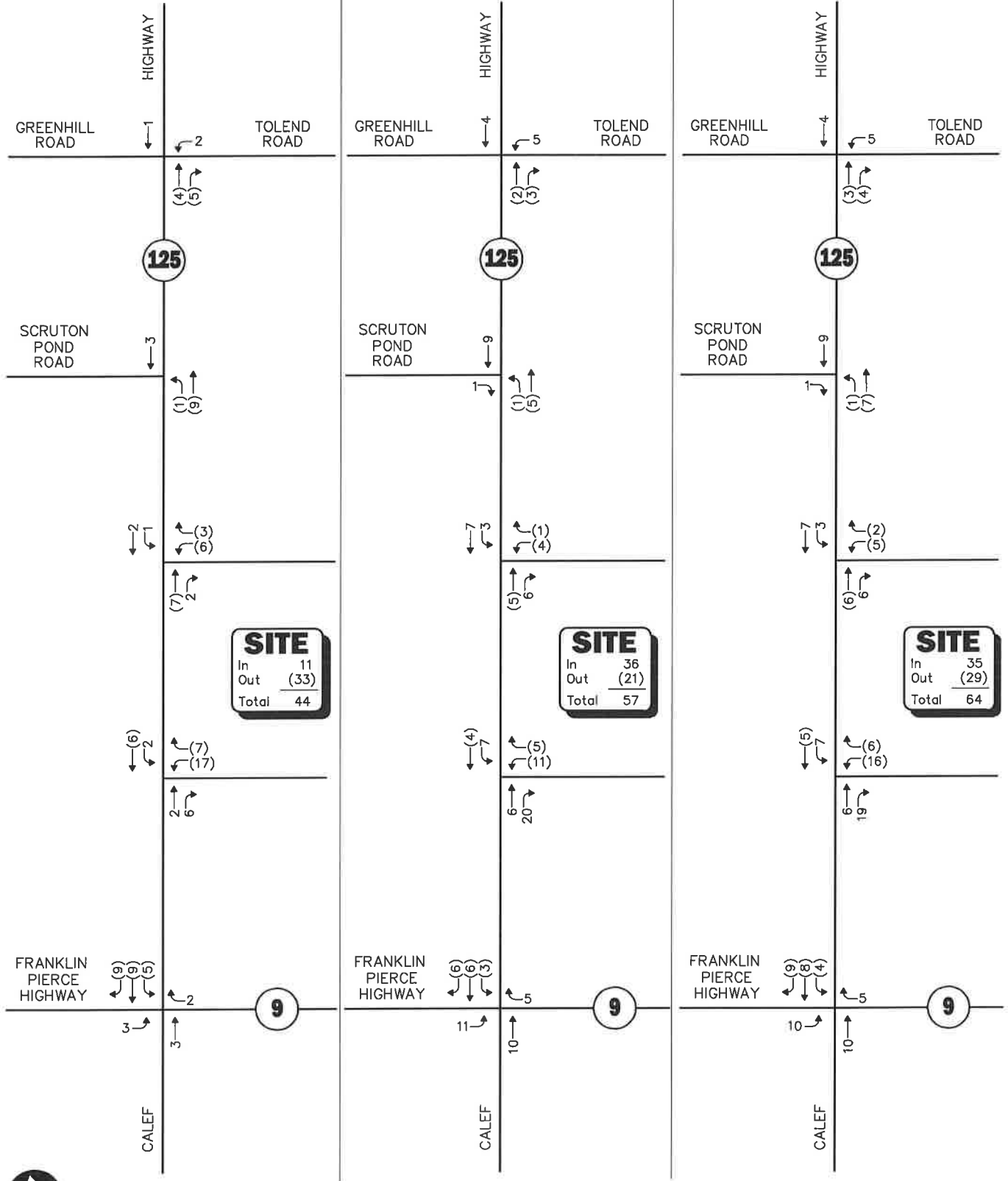
Data Plot and Equation



**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 - 12:00 PM)**



Not To Scale

Figure A2

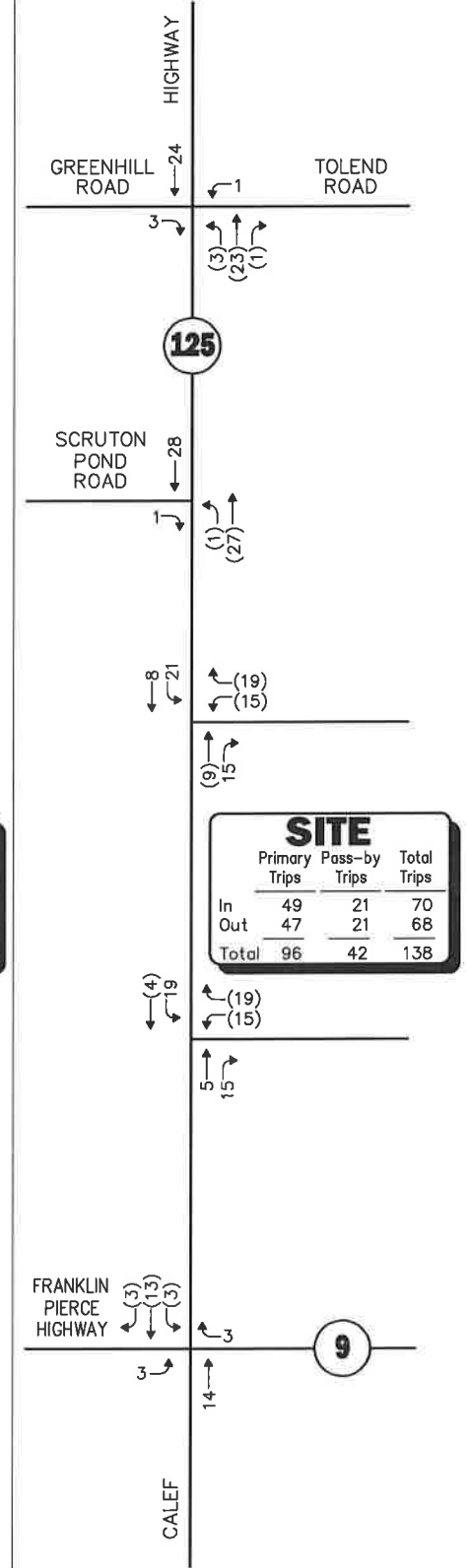
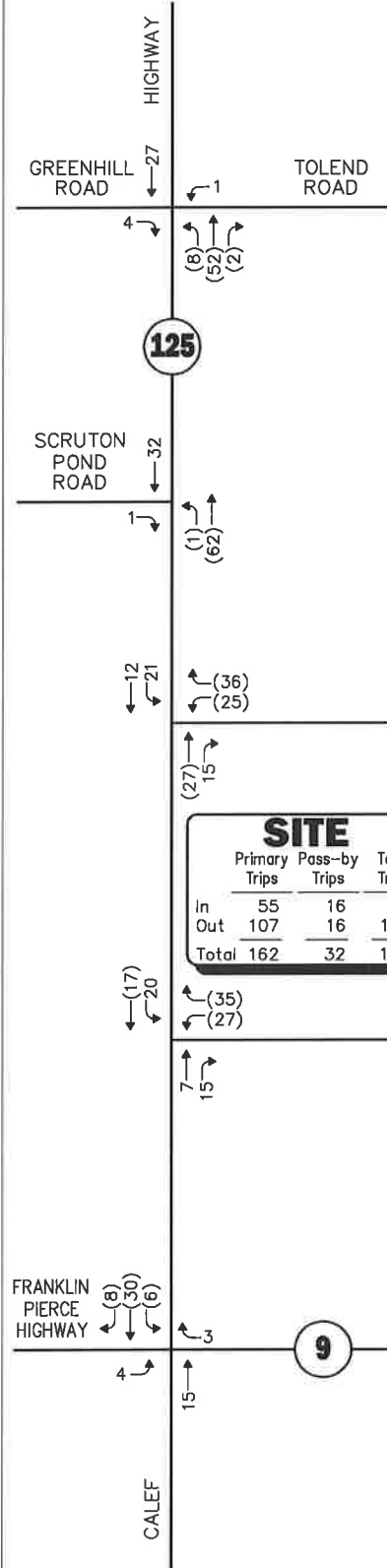
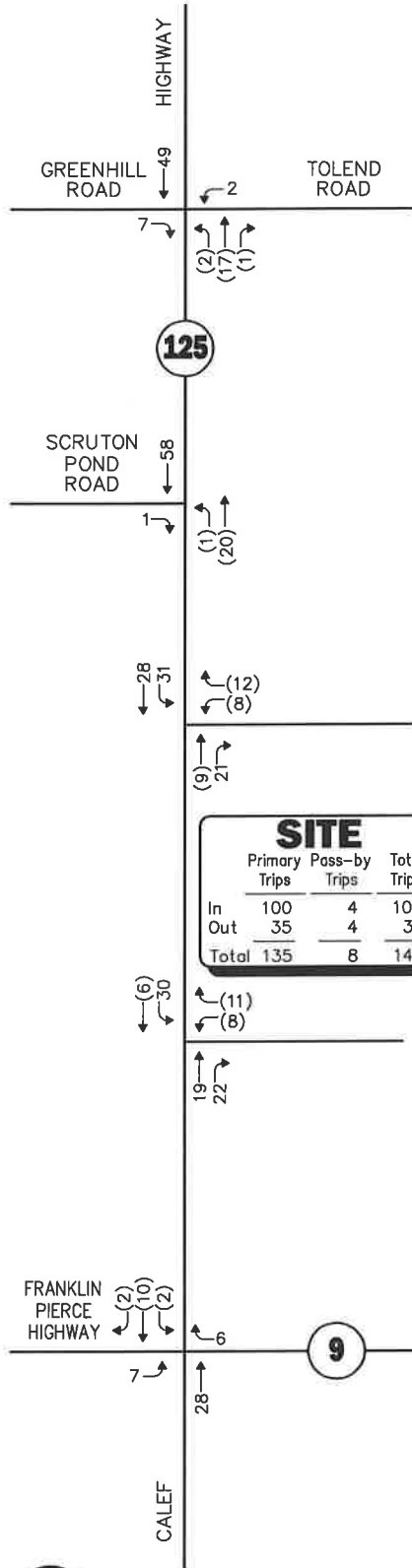


**Project-Generated
Peak Hour Traffic Volumes
Residential Component**

**WEEKDAY MORNING PEAK HOUR
(7:00 - 8:00 AM)**

**WEEKDAY EVENING PEAK HOUR
(4:00 - 5:00 PM)**

**SATURDAY MIDDAY PEAK HOUR
(11:00 - 12:00 PM)**



Not To Scale

Figure A3

JOURNEY TO WORK TRIP DISTRIBUTION

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

Number	Residence		Workplace		Primary Travel Route to/from Site						
	New Hampshire	Stratford County	New Hampshire	Stratford County	Rte 125 North	Rte 125 South	Rte 9 East	Rte 9 West	Tolland Rd East	Greenhill Rd West	Scruton Pd Rd West
6	New Hampshire	Stratford County	Barrington town	Kentucky			8				
12	New Hampshire	Stratford County	Barrington town	Maine	Cumberland County			12			
15	New Hampshire	Stratford County	Barrington town	Maine	York County	15			15		
95	New Hampshire	Stratford County	Barrington town	Maine	York County			95			
13	New Hampshire	Stratford County	Barrington town	Maine	York County	7			13		
7	New Hampshire	Stratford County	Barrington town	Maine	York County						
12	New Hampshire	Stratford County	Barrington town	Maine	York County						
29	New Hampshire	Stratford County	Barrington town	Maine	York County			29			
25	New Hampshire	Stratford County	Barrington town	Massachusetts	Essex County			25			
20	New Hampshire	Stratford County	Barrington town	Massachusetts	Essex County			20			
13	New Hampshire	Stratford County	Barrington town	Massachusetts	Essex County			13			
11	New Hampshire	Stratford County	Barrington town	Massachusetts	Essex County			11			
19	New Hampshire	Stratford County	Barrington town	Massachusetts	Middlesex County			19			
12	New Hampshire	Stratford County	Barrington town	Massachusetts	Middlesex County			12			
26	New Hampshire	Stratford County	Barrington town	Massachusetts	Suffolk County			26			
21	New Hampshire	Stratford County	Barrington town	New Hampshire	Belknap County						21
93	New Hampshire	Stratford County	Barrington town	New Hampshire	Hillsborough County	7					
16	New Hampshire	Stratford County	Barrington town	New Hampshire	Hillsborough County	93					
39	New Hampshire	Stratford County	Barrington town	New Hampshire	Hillsborough County	16					
20	New Hampshire	Stratford County	Barrington town	New Hampshire	Hillsborough County	39					
118	New Hampshire	Stratford County	Barrington town	New Hampshire	Hillsborough County			20			
24	New Hampshire	Stratford County	Barrington town	New Hampshire	Merrimack County			118			
73	New Hampshire	Stratford County	Barrington town	New Hampshire	Merrimack County			73			
14	New Hampshire	Stratford County	Barrington town	New Hampshire	Merrimack County			24			
20	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County	20					
13	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County	8					
39	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County	39					
8	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County	174					
39	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			8			
8	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			39			
15	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			15			
17	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			17			
39	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			39			
13	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			13			
178	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			178			
7	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			7			
24	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			24			
201	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			201			
11	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			11			
15	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			15			
554	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			554			
10	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			10			
31	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			31			
23	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			23			
729	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			729			
172	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			172			
627	New Hampshire	Stratford County	Barrington town	New Hampshire	Rockingham County			627			
25	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			25			
12	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			12			
195	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			195			
12	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			12			
343	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			343			
26	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			26			
90	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			90			
103	New Hampshire	Stratford County	Barrington town	New Hampshire	Stratford County			103			
5	New Hampshire	Stratford County	Barrington town	New Jersey	Essex County			5			
14	New Hampshire	Stratford County	Barrington town	New York	Nassau County			14			
13	New Hampshire	Stratford County	Barrington town	Vermont	Bennington County			13			
4,555						519	1,754	672	1,316	667	167
						11.3%	27.3%	14.6%	28.6%	14.5%	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

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕	↙	↙	↕	↙
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		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			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	219	0	0	58	0	22	606	30	18	1033	5
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		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?							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		23.5			30.6		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)		111			47		7	256	0	6	#751	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		387			162		341	1281	957	662	1209	1130
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		0.57			0.36		0.06	0.47	0.03	0.03	0.85	0.00

Intersection Summary

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

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 71.3







Natural Cycle: 75

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Fr't		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			871		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)		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		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		C			C		B	A	A	A	C	A
Approach Delay (s)		32.3			31.5			6.8			19.8	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			17.2				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			76.1				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			69.1%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
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		4			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		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		0.28			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			2169			546	
Turn Bay Length (ft)							100		100	60		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

2019 Existing Weekday Evening Peak Hour

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

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 70.6







Natural Cycle: 70

Control Type: Actuated-Uncoordinated













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

Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Fr _t		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t Permitted		0.89			0.85		0.22	1.00	1.00	0.10	1.00	1.00
Satd. Flow (perm)		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			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			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)		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			c0.08		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, d ₁		27.7			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, d ₂		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		C			C		A	B	A	B	B	A
Approach Delay (s)		28.0			32.1			17.1			11.8	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.7				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			74.4				Sum of lost time (s)				12.0	
Intersection Capacity Utilization			74.9%				ICU Level of Service				D	
Analysis Period (min)			15									

c Critical Lane Group

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
Lane Group Flow (vph)	0	117	0	0	91	0	76	676	28	25	828	21
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)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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	
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?							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			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	2	261	0
Queue Length 95th (ft)		56			61		16	285	0	6	343	0
Internal Link Dist (ft)		499			616			2169			546	

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		436			342		513	1413	1233	675	1356	1199
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		0.15	0.48	0.02	0.04	0.61	0.02













Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 63.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated

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













Ø1	Ø2	Ø4
14 s	50 s	16 s
Ø5	Ø6	Ø8
14 s	50 s	16 s

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Fr _t		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected		0.99			0.98		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1810			1867		1805	1900	1615	1805	1881	1615
Fl _t 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			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			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			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			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			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		C			C		A	A	A	A	B	A
Approach Delay (s)		28.0			29.1			6.8			11.6	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			11.4				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			68.6				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			60.2%				ICU Level of Service			B		
Analysis Period (min)			15									

c Critical Lane Group

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

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↖	↗	↖	↖	↗
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			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			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		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		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		0.63			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	60		60
Base Capacity (vph)		390			162		325	1280	956	668	1208	1129
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		0.57			0.36		0.07	0.47	0.03	0.03	0.87	0.00

Intersection Summary

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

Control Type: Actuated-Uncoordinated













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

Queue shown is maximum after two cycles.

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













 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↘	↗	↖	↘	↗
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		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
Fr _t		0.91			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t Permitted		0.96			0.46		0.08	1.00	1.00	0.37	1.00	1.00
Satd. Flow (perm)		1744			867		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		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)		8.6			8.6		50.7	48.3	48.3	48.1	47.0	47.0
Effective Green, g (s)		10.6			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			120		195	1197	861	528	1155	1041
v/s Ratio Prot							c0.01	0.33		0.00	c0.59	
v/s Ratio Perm		c0.07			0.05		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			29.6		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		C			C		B	A	A	A	C	A
Approach Delay (s)		32.2			31.4			6.9			22.3	
Approach LOS		C			C			A			C	
Intersection Summary												
HCM 2000 Control Delay		18.7										B
HCM 2000 Volume to Capacity ratio		0.79										
Actuated Cycle Length (s)		76.0							12.0			
Intersection Capacity Utilization		70.4%										C
Analysis Period (min)		15										

c Critical Lane Group

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

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
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)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
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?							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			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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		319			287		488	1254	1127	343	1231	1109
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			0.54		0.27	0.84	0.03	0.08	0.61	0.03

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 72.5

Natural Cycle: 75

Control Type: Actuated-Uncoordinated













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

Queue shown is maximum after two cycles.

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

Ø1	Ø2	Ø4
14 s	50 s	16 s
Ø5	Ø6	Ø8
14 s	50 s	16 s

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

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Fr _t		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t Permitted		0.89			0.84		0.21	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)		1665			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		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)		9.1			9.1		52.6	46.8	46.8	45.6	43.3	43.3
Effective Green, g (s)		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			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)		242			234		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		C			C		A	B	A	B	B	A
Approach Delay (s)		28.9			33.8			17.7			11.9	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			17.2				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			76.2				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			76.3%				ICU Level of Service			D		
Analysis Period (min)			15									

c Critical Lane Group

2020 No Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
Lane Group Flow (vph)	0	119	0	0	91	0	79	691	28	25	846	21
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		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?							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		14.2			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		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			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

2020 No Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type: Other







Cycle Length: 80

Actuated Cycle Length: 64.4













Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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













 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2020 No Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Fr _t		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t Permitted		0.95			0.76		0.17	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)		1738			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		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			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		0.01
v/c Ratio		0.20			0.33		0.20	0.56	0.02	0.05	0.74	0.01
Uniform Delay, d ₁		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, d ₂		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		C			C		A	A	A	A	B	A
Approach Delay (s)		28.3			29.4			6.9			12.0	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			11.7				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			69.4				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			61.0%				ICU Level of Service			B		
Analysis Period (min)			15									

c Critical Lane Group

2030 Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↘	↗	↗	↘	↗	↘
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		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			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	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		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		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		0.64			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		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
Queue Length 95th (ft)		114			52		7	265	0	6	#835	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		396			144		323	1278	955	651	1206	1127
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		0.58			0.44		0.07	0.49	0.04	0.03	0.92	0.00

Intersection Summary

Lanes, Volumes, Timings

AJA

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2030 Build Weekday Morning Peak Hour

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

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 70.9







Natural Cycle: 90

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.





















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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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			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
Fr't		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)		1803			1848		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			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			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			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		191	1196	860	510	1153	1039
v/s Ratio Prot							c0.01	0.34		0.00	c0.62	
v/s Ratio Perm		c0.07			0.06		0.08		0.02	0.02		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		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												
HCM 2000 Control Delay		23.1										
HCM 2000 Volume to Capacity ratio		0.83										
Actuated Cycle Length (s)		75.8							12.0			
Intersection Capacity Utilization		73.4%										
Analysis Period (min)		15										
c Critical Lane Group												

2020 Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
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		4			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		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		0.30			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			37.4		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)		51			103		28	#826	0	8	365	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		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			0		0	0	0	0	0	0
Reduced v/c Ratio		0.29			0.59		0.30	0.89	0.03	0.08	0.62	0.03

Intersection Summary

2020 Build Weekday Evening Peak Hour

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

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 73







Natural Cycle: 90

Control Type: Actuated-Uncoordinated













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

Queue shown is maximum after two cycles.













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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2020 Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Flt		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)		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		C			D		A	C	A	B	B	A
Approach Delay (s)		29.0			35.8			23.3			12.4	
Approach LOS		C			D			C			B	
Intersection Summary												
HCM 2000 Control Delay		20.6										
HCM 2000 Volume to Capacity ratio		0.85										
Actuated Cycle Length (s)		76.8							12.0			
Intersection Capacity Utilization		80.6%										
Analysis Period (min)		15										
c Critical Lane Group												

2020 Build Saturday Mldday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↘	↗	↖	↘	↗
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		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
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		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		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		0.34			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	0	6	382	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		423			308		476	1402	1224	641	1306	1159
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.29			0.32		0.17	0.51	0.03	0.04	0.67	0.02

Intersection Summary

Lanes, Volumes, Timings

AJA

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2020 Build Saturday Mldday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type: Other







Cycle Length: 80

Actuated Cycle Length: 66.6













Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2020 Build Saturday Mldday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road













												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Flt		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			1872		1805	1900	1615	1805	1881	1615
Flt Permitted		0.95			0.72		0.15	1.00	1.00	0.31	1.00	1.00
Satd. Flow (perm)		1734			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		C			C		A	A	A	A	B	A
Approach Delay (s)		29.1			31.1			7.2			12.7	
Approach LOS		C			C			A			B	

Intersection Summary

HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	71.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

2030 No Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			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	247	0	0	66	0	24	691	33	20	1165	6
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		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?							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			33.3		3.5	10.2	0.1	2.9	36.1	0.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.5			33.3		3.5	10.2	0.1	2.9	36.1	0.0
Queue Length 50th (ft)		48			16		2	109	0	2	325	0
Queue Length 95th (ft)		#131			53		7	315	0	6	#893	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		393			154		328	1212	912	578	1198	1120
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.63			0.43		0.07	0.57	0.04	0.03	0.97	0.01

Intersection Summary

2030 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: 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.

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 No Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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)		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
Flt		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			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		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		0.02	0.03		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		C			C		B	A	A	A	D	A
Approach Delay (s)		33.0			31.1			9.0			45.5	
Approach LOS		C			C			A			D	
Intersection Summary												
HCM 2000 Control Delay			31.6				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			74.3				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			77.0%				ICU Level of Service				D	
Analysis Period (min)			15									
c Critical Lane Group												

2030 No Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
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		4			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		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		0.32			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		29	#882	0	8	424	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		319			280		414	1247	1122	346	1189	1075
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		0.30			0.63		0.36	0.94	0.03	0.09	0.69	0.03

Intersection Summary

2030 No Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type: Other

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.













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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 No Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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			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
Fr _t		0.92			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t Permitted		0.88			0.82		0.15	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)		1641			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		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)		246			236		395	1185	1028	200	1064	922
v/s Ratio Prot							c0.05	c0.63		0.01	0.44	
v/s Ratio Perm		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		C			D		A	D	A	B	B	A
Approach Delay (s)		28.9			37.1			32.0			15.8	
Approach LOS		C			D			C			B	
Intersection Summary												
HCM 2000 Control Delay		26.5										
HCM 2000 Volume to Capacity ratio		0.89										
Actuated Cycle Length (s)		76.5							12.0			
Intersection Capacity Utilization		82.9%										
Analysis Period (min)		15										
c Critical Lane Group												

2030 No Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↘	↗	↖	↕	↗
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		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
Lane Group Flow (vph)	0	130	0	0	102	0	87	763	31	28	934	24
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		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?							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		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			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

Lanes, Volumes, Timings

AJA

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2030 No Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type: Other







Cycle Length: 80

Actuated Cycle Length: 68.4













Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 No Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Fr _t		0.90			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t Permitted		0.95			0.70		0.13	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)		1723			1336		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)		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, d ₁		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, d ₂		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		C			C		A	A	A	A	B	A
Approach Delay (s)		30.2			32.3			7.6			13.8	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM 2000 Control Delay			13.1				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			73.4				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			65.3%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												







2030 Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.907			0.960				0.850			0.850
Flt Protected		0.995			0.973		0.950			0.950		
Satd. Flow (prot)	0	1804	0	0	1844	0	1687	1810	1302	1805	1792	1615
Flt Permitted		0.966			0.371		0.085			0.278		
Satd. Flow (perm)	0	1752	0	0	703	0	151	1810	1302	528	1792	1615
Satd. Flow (RTOR)		118			21				123			123
Adj. Flow (vph)	24	55	176	39	11	21	26	714	40	20	1218	6
Lane Group Flow (vph)	0	255	0	0	71	0	26	714	40	20	1218	6
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		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?							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		0.69			0.56		0.09	0.59	0.04	0.04	1.02	0.01
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		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	0
Queue Length 95th (ft)		#138			#65		8	333	0	6	#950	0
Internal Link Dist (ft)		499			616			2169			546	
Turn Bay Length (ft)							100		100	60		60
Base Capacity (vph)		398			138		328	1209	910	562	1195	1118
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		0.64			0.51		0.08	0.59	0.04	0.04	1.02	0.01
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 70.4												
Natural Cycle: 90												
Control Type: Actuated-Uncoordinated												



















2030 Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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













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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 Build Weekday Morning Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕							
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			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			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		C			C		B	A	A	A	E	A
Approach Delay (s)		33.5			33.5			9.3			60.7	
Approach LOS		C			C			A			E	
Intersection Summary												
HCM 2000 Control Delay		39.8			HCM 2000 Level of Service			D				
HCM 2000 Volume to Capacity ratio		0.93										
Actuated Cycle Length (s)		74.1			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		80.0%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

2030 Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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		0	0		0	100		100	60		60
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		579			696			2249			626	
Travel Time (s)		13.2			15.8			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 (%)												
Lane Group Flow (vph)	0	102	0	0	183	0	158	1226	40	31	859	35
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		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?							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)		55			#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

Intersection Summary

2030 Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 74.3







Natural Cycle: 90

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 Build Weekday Evening Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Flt		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			1882		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			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		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)		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		375	1195	1036	197	1073	930
v/s Ratio Prot							c0.05	c0.66		0.01	0.46	
v/s Ratio Perm		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			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		C			D		B	D	A	B	B	A
Approach Delay (s)		29.5			42.5			41.7			16.9	
Approach LOS		C			D			D			B	
Intersection Summary												
HCM 2000 Control Delay			32.6				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			77.9				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			86.6%				ICU Level of Service			E		
Analysis Period (min)			15									







c Critical Lane Group

2030 Build Saturday Midday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road













Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.896			0.944				0.850			0.850
Flt Protected		0.994			0.978		0.950			0.950		
Satd. Flow (prot)	0	1805	0	0	1871	0	1805	1900	1615	1805	1881	1615
Flt Permitted		0.947			0.670		0.113			0.270		
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		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		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?							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												
Cycle Length: 80												
Actuated Cycle Length: 69.9												
Natural Cycle: 60												
Control Type: Actuated-Uncoordinated												

2030 Build Saturday Mldday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

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

 Ø1	 Ø2	 Ø4
14 s	50 s	16 s
 Ø5	 Ø6	 Ø8
14 s	50 s	16 s

2030 Build Saturday Mldday Peak Hour
 1: NH Route 125 (Calef Highway) & Greenhill Road/Tolend Road

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↑	↗	↙	↑	↗
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
Flt		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			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		C			C		B	A	A	A	B	A
Approach Delay (s)		30.7			33.9			8.1			15.0	
Approach LOS		C			C			A			B	
Intersection Summary												
HCM 2000 Control Delay		14.0										
HCM 2000 Volume to Capacity ratio		0.72										
Actuated Cycle Length (s)		75.0							12.0			
Intersection Capacity Utilization		67.3%										
Analysis Period (min)		15										
c Critical Lane Group												

NH Route 125 at Scruton Pond Road

2019 Existing Weekday Morning Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	11.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
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	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	-	-	0	0	-
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	Major1	Major2		
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	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-
Pot Cap-1 Maneuver	81	234	596	-	-
Stage 1	295	-	-	-	-
Stage 2	506	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	80	234	596	-	-
Mov Cap-2 Maneuver	80	-	-	-	-
Stage 1	290	-	-	-	-
Stage 2	506	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	189.1	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	596	-	108	-	-
HCM Lane V/C Ratio	0.01	-	1.093	-	-
HCM Control Delay (s)	11.1	0	189.1	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	7.3	-	-

2019 Existing Weekday Evening Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
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	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	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	1184	665	71

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1921	701	736	0	-	0
Stage 1	701	-	-	-	-	-
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, %				-	-	-
Mov Cap-1 Maneuver	71	442	879	-	-	-
Mov Cap-2 Maneuver	71	-	-	-	-	-
Stage 1	466	-	-	-	-	-
Stage 2	282	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	95	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	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	-	-

2019 Existing Saturday Midday Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
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	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	-	-	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

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1635	884	909	0	-	0
Stage 1	884	-	-	-	-	-
Stage 2	751	-	-	-	-	-
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	112	347	757	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	107	347	757	-	-	-
Mov Cap-2 Maneuver	107	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	470	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	94.1	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	757	-	125	-	-
HCM Lane V/C Ratio	0.027	-	0.768	-	-
HCM Control Delay (s)	9.9	0	94.1	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	4.5	-	-

2020 No Build Weekday Morning Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	12.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕	↕	
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	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	-	-	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

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1909	1207	1213	0	-	0
Stage 1	1207	-	-	-	-	-
Stage 2	702	-	-	-	-	-
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	76	226	582	-	-	-
Stage 1	286	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	75	226	582	-	-	-
Mov Cap-2 Maneuver	75	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	495	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	215.9	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	582	-	102	-	-
HCM Lane V/C Ratio	0.01	-	1.158	-	-
HCM Control Delay (s)	11.2	0	215.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	7.7	-	-

2020 No Build Weekday Evening Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	YF		←↑		↑P	
Traffic Vol, veh/h	24	9	17	1113	637	66
Future Vol, veh/h	24	9	17	1113	637	66
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	-	-	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

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	1967	721	756	0	- 0
Stage 1	721	-	-	-	-
Stage 2	1246	-	-	-	-
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	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	66	431	864	-	-
Mov Cap-2 Maneuver	66	-	-	-	-
Stage 1	454	-	-	-	-
Stage 2	274	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	107.8	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	864	-	86	-	-
HCM Lane V/C Ratio	0.021	-	0.673	-	-
HCM Control Delay (s)	9.3	0	107.8	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	3.2	-	-

2020 No Build Saturday Midday Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh 6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
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	-	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	20	21	725	876	51

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1669	902	927	0	-	0
Stage 1	902	-	-	-	-	-
Stage 2	767	-	-	-	-	-
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	107	339	746	-	-	-
Stage 1	399	-	-	-	-	-
Stage 2	462	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	102	339	746	-	-	-
Mov Cap-2 Maneuver	102	-	-	-	-	-
Stage 1	380	-	-	-	-	-
Stage 2	462	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	107.4	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	746	-	119	-	-
HCM Lane V/C Ratio	0.028	-	0.818	-	-
HCM Control Delay (s)	10	0	107.4	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	4.8	-	-

2030 Build Weekday Morning Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh	16.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
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
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	-	-	0	0	-
Peak Hour Factor	83	83	86	86	94	94
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	71	48	8	723	1265	13

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2011	1272	1278	0	-	0
Stage 1	1272	-	-	-	-	-
Stage 2	739	-	-	-	-	-
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	~ 66	207	550	-	-	-
Stage 1	266	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 64	207	550	-	-	-
Mov Cap-2 Maneuver	~ 64	-	-	-	-	-
Stage 1	260	-	-	-	-	-
Stage 2	476	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	295.9	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	550	-	89	-	-
HCM Lane V/C Ratio	0.015	-	1.34	-	-
HCM Control Delay (s)	11.6	0	295.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	8.8	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2020 Build Weekday Evening Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	24	11	19	1180	678	66
Future Vol, veh/h	24	11	19	1180	678	66
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	-	-	0	0	-
Peak Hour Factor	57	57	92	92	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	42	19	21	1283	729	71

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2090	765	800	0	-	0
Stage 1	765	-	-	-	-	-
Stage 2	1325	-	-	-	-	-
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	59	406	832	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	251	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	54	406	832	-	-	-
Mov Cap-2 Maneuver	54	-	-	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	251	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	155.5	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	832	-	74	-	-
HCM Lane V/C Ratio	0.025	-	0.83	-	-
HCM Control Delay (s)	9.4	0	155.5	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	4.1	-	-

2020 Build Saturday Midday Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	7.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
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	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	-	-

2030 No Build Weekday Morning Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh 26.9

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations	Y			↑	↑	
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	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	86	86	94	94
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	80	53	7	759	1324	14

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	2104	1331	1338	0	-	0
Stage 1	1331	-	-	-	-	-
Stage 2	773	-	-	-	-	-
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	~ 57	191	522	-	-	-
Stage 1	249	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 56	191	522	-	-	-
Mov Cap-2 Maneuver	~ 56	-	-	-	-	-
Stage 1	243	-	-	-	-	-
Stage 2	459	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	453.5	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	522	-	78	-	-
HCM Lane V/C Ratio	0.013	-	1.699	-	-
HCM Control Delay (s)	12	0	453.5	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	11.2	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2030 No Build Weekday Evening Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh 7

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations	↘			↙	↔	↔
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	-	-	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 Minor2 Major1 Major2

Conflicting Flow All	2172	795	835	0	-	0
Stage 1	795	-	-	-	-	-
Stage 2	1377	-	-	-	-	-
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	52	391	807	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 47	391	807	-	-	-
Mov Cap-2 Maneuver	~ 47	-	-	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	237	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	239.4	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	807	-	62	-	-
HCM Lane V/C Ratio	0.026	-	1.047	-	-
HCM Control Delay (s)	9.6	0	239.4	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	5.1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2030 No Build Saturday Midday Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection						
Int Delay, s/veh	12					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
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	-	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	84	23	23	799	967	56

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1840	995	1023	0	-	0
Stage 1	995	-	-	-	-	-
Stage 2	845	-	-	-	-	-
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	84	300	686	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 79	300	686	-	-	-
Mov Cap-2 Maneuver	~ 79	-	-	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	217	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	686	-	94	-	-
HCM Lane V/C Ratio	0.033	-	1.136	-	-
HCM Control Delay (s)	10.4	0	217	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	7.2	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2030 Build Weekday Morning Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh 34.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations	Y			↑	↑	
Traffic Vol, veh/h	66	45	8	682	1306	13
Future Vol, veh/h	66	45	8	682	1306	13
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	-	-	0	0	-
Peak Hour Factor	83	83	86	86	94	94
Heavy Vehicles, %	0	0	0	6	5	0
Mvmt Flow	80	54	9	793	1389	14

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	2207	1396	1403	0	-	0
Stage 1	1396	-	-	-	-	-
Stage 2	811	-	-	-	-	-
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	~ 49	175	493	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 47	175	493	-	-	-
Mov Cap-2 Maneuver	~ 47	-	-	-	-	-
Stage 1	224	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	596.7	0.1	0
HCM LOS	F		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	493	-	67	-	-
HCM Lane V/C Ratio	0.019	-	1.996	-	-
HCM Control Delay (s)	12.4	0	596.7	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	12.4	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2030 Build Weekday Evening Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh 7.6

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	27	12	21	1195	743	74
Future Vol, veh/h	27	12	21	1195	743	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	-	-	0	0	-
Peak Hour Factor	57	57	92	92	93	93
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	47	21	23	1299	799	80

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	2184	839	879	0	-	0
Stage 1	839	-	-	-	-	-
Stage 2	1345	-	-	-	-	-
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	51	369	777	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 46	369	777	-	-	-
Mov Cap-2 Maneuver	~ 46	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	245	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	249.7	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	777	-	63	-	-
HCM Lane V/C Ratio	0.029	-	1.086	-	-
HCM Control Delay (s)	9.8	0	249.7	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	5.4	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

2030 Build Saturday Mldday Peak Hour
 2: NH Route 125 (Calef Highway) & Scranton Pond Road

Intersection

Int Delay, s/veh 15.6

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations	W			W	W	
Traffic Vol, veh/h	62	19	23	769	859	48
Future Vol, veh/h	62	19	23	769	859	48
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	-	-	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

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	1925	1039	1067	0	-	0
Stage 1	1039	-	-	-	-	-
Stage 2	886	-	-	-	-	-
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	~ 74	283	661	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 69	283	661	-	-	-
Mov Cap-2 Maneuver	~ 69	-	-	-	-	-
Stage 1	320	-	-	-	-	-
Stage 2	406	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	288.6	0.3	0
HCM LOS	F		

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR
























Capacity (veh/h)	661	-	84	-	-
HCM Lane V/C Ratio	0.038	-	1.303	-	-
HCM Control Delay (s)	10.7	0	288.6	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	8.2	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

NH Route 125 at NH Route 9

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
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		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												
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	0.41	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)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		100
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

2019 Existing Weekday Morning Peak Hour

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

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 150.8

Natural Cycle: 120

Control Type: Actuated-Uncoordinated









~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

























Queue shown is maximum after two cycles.

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

 Ø1 36 s	 Ø2 36 s	 Ø3 36 s	 Ø4 53 s
 Ø5 36 s	 Ø6 36 s	 Ø7 36 s	 Ø8 53 s
























2019 Existing Weekday Morning Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Flt	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				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		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						0.08			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		E	F	D	E	C	C
Approach Delay (s)		148.4			65.7			92.5			50.6	
Approach LOS		F			E			F			D	
Intersection Summary												
HCM 2000 Control Delay			88.7			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			152.1			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			87.3%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

2019 Existing Weekday Evening Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		150	150		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
Lane Group Flow (vph)	213	992	116	87	623	0	88	179	111	276	510	139
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												
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	0.66	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

2019 Existing Weekday Evening Peak Hour

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

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 127.7

Natural Cycle: 130

Control Type: Actuated-Uncoordinated









~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
36 s	36 s	36 s	53 s

2019 Existing Weekday Evening Peak Hour
























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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Fr _t	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	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		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			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		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		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			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		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	C	D	D		D	D	D	D	D	C
Approach Delay (s)		277.0			48.2			43.0			45.9	
Approach LOS		F			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			137.6			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.11									
Actuated Cycle Length (s)			127.1			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			94.5%			ICU Level of Service			F			
Analysis Period (min)			15									

c Critical Lane Group

2019 Existing Saturday Midday Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			12.8			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)	118	491	112	131	880	0	126	278	176	162	220	113
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			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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		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	
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		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	5	81	274		78	169	33	100	126	0
Queue Length 95th (ft)	154	#682	55	147	#411		160	293	101	198	228	43
Internal Link Dist (ft)		203			2568			482			581	

2019 Existing Saturday Midday Peak Hour

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

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Turn Bay Length (ft)	150		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		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

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 106.2

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

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
























Queue shown is maximum after two cycles.

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
























Ø1	Ø2	Ø3	Ø4
36 s	36 s	36 s	53 s
Ø5	Ø6	Ø7	Ø8
36 s	36 s	36 s	53 s

2019 Existing Saturday Midday Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Fr _t	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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		1805	1900	1561	1805	1818	1561
Fl _t 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		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			0.03						0.06			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, d ₁	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, d ₂	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	C	D	D		D	D	C	D	D	C
Approach Delay (s)		41.8			37.3			39.1			36.6	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			38.7			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			105.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			64.8%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
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	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												
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	0.42	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	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	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	151	24
Queue Length 95th (ft)	106	#1025	183	#360	#748		184	#924	120	259	165	33
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		100
Base Capacity (vph)	350	375	412	345	1116		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	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

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 Highway)
























Area Type: Other
 Cycle Length: 161
 Actuated Cycle Length: 154.6
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
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 Highway)
























												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		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		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			0.08						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	E	F	D	E	E		E	F	D	F	C	C
Approach Delay (s)		191.0			66.8			90.0			52.5	
Approach LOS		F			E			F			D	

Intersection Summary			
HCM 2000 Control Delay	97.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	155.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

2020 No Build Weekday Evening Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
Lane Group Flow (vph)	210	1023	114	110	686	0	110	174	108	271	498	177
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			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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		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	
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	0.66	1.78	0.20	0.52	0.78		0.51	0.38	0.23	0.74	0.83	0.30
Control Delay	62.0	387.0	10.2	64.8	53.4		64.6	44.9	7.6	63.1	53.6	14.2
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	62.0	387.0	10.2	64.8	53.4		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		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 Highway)

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Turn Bay Length (ft)	150		150	150			100		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		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

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 129.4

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

Ø1	Ø2	Ø3	Ø4
36 s	36 s	36 s	53 s
Ø5	Ø6	Ø7	Ø8
36 s	36 s	36 s	53 s























2020 No Build Weekday Evening Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Flt Protected	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
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 (prot)	1805	1900	1615	1745	3474		1805	1900	1561	1787	1837	1546
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		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)	20.7	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		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			0.03						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	C	E	D		E	D	D	E	D	C
Approach Delay (s)		317.0			50.2			44.0			47.3	
Approach LOS		F			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			152.0			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.14									
Actuated Cycle Length (s)			129.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			97.7%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

2020 No Build Saturday Midday Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			12.8			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		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												
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	0.90	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	99	295		95	166	31	98	127	12
Queue Length 95th (ft)	152	#728	53	170	427		187	289	100	194	233	68
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		100
Base Capacity (vph)	549	572	562	531	1161		549	885	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	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

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 107.4









Natural Cycle: 65

Control Type: Actuated-Uncoordinated

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
























Queue shown is maximum after two cycles.

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
























 Ø1 36 s	 Ø2 36 s	 Ø3 36 s	 Ø4 53 s
 Ø5 36 s	 Ø6 36 s	 Ø7 36 s	 Ø8 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 Highway)

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		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						4			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		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			0.02						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	C	D	D		D	D	C	D	D	C
Approach Delay (s)		46.4			37.4			39.9			38.4	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			40.3			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			106.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			66.3%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		150	150		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
Lane Group Flow (vph)	57	575	203	256	1060	0	137	631	191	264	208	174
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												
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	0.42	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		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		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)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		100
Base Capacity (vph)	349	374	411	343	1121		365	595	568	345	663	669
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	1.54	0.49	0.75	0.95		0.38	1.06	0.34	0.77	0.31	0.26

Intersection Summary

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 155.2

Natural Cycle: 130

Control Type: Actuated-Uncoordinated









- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1 36 s	 Ø2 36 s	 Ø3 36 s	 Ø4 53 s
 Ø5 36 s	 Ø6 36 s	 Ø7 36 s	 Ø8 53 s

2030 Build Weekday Morning Peak Hour
























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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		1.00	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		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			2					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		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		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	E	E		E	F	D	F	C	C
Approach Delay (s)		221.2			70.5			90.9			53.1	
Approach LOS		F			E			F			D	
Intersection Summary												
HCM 2000 Control Delay			106.2			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			156.4			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			92.5%			ICU Level of Service			F			
Analysis Period (min)			15									

c Critical Lane Group

2020 Build Weekday Evening Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		150	150		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
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		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												
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	0.67	1.87	0.21	0.54	0.85		0.55	0.37	0.23	0.75	0.83	0.32
Control Delay	63.2	426.0	10.6	65.7	57.8		65.3	44.5	7.4	64.7	55.3	15.5
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	63.2	426.0	10.6	65.7	57.8		65.3	44.5	7.4	64.7	55.3	15.5
Queue Length 50th (ft)	176	~1428	8	100	326		106	124	0	225	389	42
Queue Length 95th (ft)	278	#1909	59	177	#525		186	213	44	362	#646	118
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		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

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 131.4

Natural Cycle: 130

Control Type: Actuated-Uncoordinated









~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
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 Highway)

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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			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	C	E	D		E	D	D	E	D	C
Approach Delay (s)		349.8			54.6			44.7			48.7	
Approach LOS		F			D			D			D	
























Intersection Summary

HCM 2000 Control Delay	164.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	130.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	100.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

2020 Build Saturday Midday Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			12.8			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	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	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												
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	0.95	0.19	0.57	0.83		0.56	0.65	0.40	0.55	0.55	0.35
Control Delay	52.2	66.0	9.3	51.3	42.2		51.1	47.4	16.8	51.3	44.8	13.6
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)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		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		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

Lanes, Volumes, Timings

AJA

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2020 Build Saturday Mldday 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.

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

 Ø1 36 s	 Ø2 36 s	 Ø3 36 s	 Ø4 53 s
 Ø5 36 s	 Ø6 36 s	 Ø7 36 s	 Ø8 53 s

2020 Build Saturday Midday Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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			0.02						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	E	C	D	D		D	D	D	D	D	C
Approach Delay (s)		53.1			39.0			40.3			39.3	
Approach LOS		D			D			D			D	
























Intersection Summary

HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	107.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

2030 No Build Weekday Morning Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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 (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			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
Lane Group Flow (vph)	63	593	226	268	1132	0	133	700	212	292	230	174
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												
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	0.44	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		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.8	326.1	36.7	87.0	83.5		78.4	149.5	21.4	91.4	37.6	12.7
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)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		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	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

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 157.5

Natural Cycle: 130

Control Type: Actuated-Uncoordinated









- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
36 s	36 s	36 s	53 s

2030 No Build Weekday Morning Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		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						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		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						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		E	F	D	F	D	C
Approach Delay (s)		239.7			87.5			126.6			57.4	
Approach LOS		F			F			F			E	
























Intersection Summary

HCM 2000 Control Delay	125.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	158.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

2030 No Build Weekday Evening Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
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	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												
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	0.72	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			100		100	100		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

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 137.5

Natural Cycle: 140

Control Type: Actuated-Uncoordinated









- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
36 s	36 s	36 s	53 s

2030 No Build Weekday Evening Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Fr _t	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t 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		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		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			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, d ₁	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, d ₂	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	C
Approach Delay (s)		383.3			64.1			45.9			52.5	
Approach LOS		F			E			D			D	
























Intersection Summary

HCM 2000 Control Delay	190.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	137.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

2030 No Build Saturday Midday Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			12.8			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)	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												
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
Control Delay	55.3	89.9	11.9	54.5	53.1		54.4	48.9	18.9	54.2	44.1	13.2
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	55.3	89.9	11.9	54.5	53.1		54.4	48.9	18.9	54.2	44.1	13.2
Queue Length 50th (ft)	86	~440	10	115	370		111	196	43	117	149	20
Queue Length 95th (ft)	176	#915	69	194	#585		213	336	122	226	269	82
Internal Link Dist (ft)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		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		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

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 113.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated









~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
36 s	36 s	36 s	53 s

2030 No Build Saturday Midday Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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	C	D	D		D	D	D	D	D	C
Approach Delay (s)		72.4			48.7			42.0			40.0	
Approach LOS		E			D			D			D	
























Intersection Summary

HCM 2000 Control Delay	51.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	113.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

2030 Build Weekday Morning Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
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
Frts			0.850		0.989				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1810	1599	1662	3404	0	1770	1881	1546	1671	1749	1546
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1687	1810	1599	1662	3404	0	1770	1881	1546	1671	1749	1546
Satd. Flow (RTOR)			102		5				115			130
Adj. Flow (vph)	63	627	226	276	1076	87	144	700	212	292	230	186
Lane Group Flow (vph)	63	627	226	276	1163	0	144	700	212	292	230	186
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												
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	0.44	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		150	150			100		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	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	0.18	1.71	0.56	0.82	1.04		0.40	1.20	0.38	0.86	0.35	0.28

Intersection Summary

Cycle Length: 161

Actuated Cycle Length: 157.9

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

2030 Build Weekday Morning Peak Hour

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









~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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
























Queue shown is maximum after two cycles.

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

 Ø1 36 s	 Ø2 36 s	 Ø3 36 s	 Ø4 53 s
 Ø5 36 s	 Ø6 36 s	 Ø7 36 s	 Ø8 53 s
























2030 Build Weekday Morning Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Fr _t	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Fl _t 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
Fl _t 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		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		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, d ₁	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, d ₂	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	C
Approach Delay (s)		272.7			94.3			126.7			57.8	
Approach LOS		F			F			F			E	
Intersection Summary												
HCM 2000 Control Delay			136.0			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.19									
Actuated Cycle Length (s)			159.1			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			100.3%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

2030 Build Weekday Evening Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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		0	100		100	100		100
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		283			2648			562			661	
Travel Time (s)		6.4			60.2			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 (%)												
Lane Group Flow (vph)	232	1155	237	128	805	0	135	192	120	299	551	142
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												
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	0.72	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		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

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 Highway)

Area Type: Other

Cycle Length: 161

Actuated Cycle Length: 139.1

Natural Cycle: 150

Control Type: Actuated-Uncoordinated









- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

 Ø1	 Ø2	 Ø3	 Ø4
36 s	36 s	36 s	53 s
 Ø5	 Ø6	 Ø7	 Ø8
36 s	36 s	36 s	53 s

2030 Build Weekday Evening Peak Hour

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

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Flt	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			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		E	D	D	E	D	C
Approach Delay (s)		422.9			78.2			46.6			53.9	
Approach LOS		F			E			D			D	
























Intersection Summary

HCM 2000 Control Delay	208.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	139.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

2030 Build Saturday Midday Peak Hour

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

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Frts			0.850		0.970				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1881	1615	1745	3474	0	1805	1900	1561	1805	1818	1561
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	1881	1615	1745	3474	0	1805	1900	1561	1805	1818	1561
Satd. Flow (RTOR)			102		17				115			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		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	0.51	1.09	0.23	0.60	0.95		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)		203			2568			482			581	
Turn Bay Length (ft)	150		150	150			100		100	100		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

Cycle Length: 161

Actuated Cycle Length: 114.6

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

2030 Build Saturday Mldday 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.

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

 Ø1 36 s	 Ø2 36 s	 Ø3 36 s	 Ø4 53 s
 Ø5 36 s	 Ø6 36 s	 Ø7 36 s	 Ø8 53 s

2030 Build Saturday Mldday Peak Hour

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

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
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
Fr't	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	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			2						4			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			0.03						0.07			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	C	D	D		D	D	D	D	D	D
Approach Delay (s)		85.3			52.7			42.5			41.1	
Approach LOS		F			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			56.8			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			114.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			73.4%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

NH Route 125 at the North Project Site Roadway

2030 Build Weekday Morning Peak Hour
 4: NH Route 125 (Calef Highway) & North Site Driveway

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y*		↑			↑
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, #	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	15	16	667	25	35	1301

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2051	680	0	0	692	0
Stage 1	680	-	-	-	-	-
Stage 2	1371	-	-	-	-	-
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	-	-	2.218	-
Pot Cap-1 Maneuver	61	451	-	-	903	-
Stage 1	503	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	451	-	-	903	-
Mov Cap-2 Maneuver	52	-	-	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	203	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	59.8	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	96	903
HCM Lane V/C Ratio	-	-	0.328	0.039
HCM Control Delay (s)	-	-	59.8	9.1
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	1.3	0.1

2020 Build Weekday Evening Peak Hour
 4: NH Route 125 (Calef Highway) & North Site Driveway

Intersection						
Int Delay, s/veh	4.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
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
Storage Length	0	-	-	-	-	-
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
Mvmt Flow	32	40	1263	23	26	723

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2050	1275	0	0	1286
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	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
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	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	116.5	0	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	94	539
HCM Lane V/C Ratio	-	-	0.763	0.048
HCM Control Delay (s)	-	-	116.5	12
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	4	0.2

2020 Build Saturday Mldday Peak Hour
 4: NH Route 125 (Calef Highway) & North Site Driveway

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
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	-	None
Storage Length	0	-	-	-	-	-
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
Mvmt Flow	22	23	762	23	26	842

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1668	774	0	0	785
Stage 1	774	-	-	-	-
Stage 2	894	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	106	398	-	-	834
Stage 1	455	-	-	-	-
Stage 2	399	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	100	398	-	-	834
Mov Cap-2 Maneuver	100	-	-	-	-
Stage 1	455	-	-	-	-
Stage 2	375	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35.4	0	0.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	162	834
HCM Lane V/C Ratio	-	-	0.275	0.031
HCM Control Delay (s)	-	-	35.4	9.5
HCM Lane LOS	-	-	E	A
HCM 95th %tile Q(veh)	-	-	1.1	0.1

2030 Build Weekday Morning Peak Hour
 4: NH Route 125 (Calef Highway) & North Site Driveway

Intersection

Int Delay, s/veh 1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	14	15	675	23	32	1319
Future Vol, veh/h	14	15	675	23	32	1319
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	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	16	734	25	35	1434

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2251	747	0	0	759
Stage 1	747	-	-	-	-
Stage 2	1504	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	46	413	-	-	852
Stage 1	468	-	-	-	-
Stage 2	203	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	37	413	-	-	852
Mov Cap-2 Maneuver	37	-	-	-	-
Stage 1	468	-	-	-	-
Stage 2	162	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	93.1	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	70	852
HCM Lane V/C Ratio	-	-	0.45	0.041
HCM Control Delay (s)	-	-	93.1	9.4
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	1.8	0.1

2030 Build Weekday Evening Peak Hour
 4: NH Route 125 (Calef Highway) & North Site Driveway

Intersection

Int Delay, s/veh 4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	29	37	1179	21	24	731
Future Vol, veh/h	29	37	1179	21	24	731
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	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	40	1282	23	26	795

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2141	1294	0	0	1305
Stage 1	1294	-	-	-	-
Stage 2	847	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	54	199	-	-	530
Stage 1	257	-	-	-	-
Stage 2	420	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	49	199	-	-	530
Mov Cap-2 Maneuver	49	-	-	-	-
Stage 1	257	-	-	-	-
Stage 2	383	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	143.8	0	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	85	530
HCM Lane V/C Ratio	-	-	0.844	0.049
HCM Control Delay (s)	-	-	143.8	12.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	4.4	0.2

2030 Build Saturday Mldday Peak Hour
 4: NH Route 125 (Calef Highway) & North Site Driveway

Intersection

Int Delay, s/veh 1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑			↓
Traffic Vol, veh/h	20	21	767	21	24	854
Future Vol, veh/h	20	21	767	21	24	854
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	-	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	Major1	Major2	Major3	Major4
Conflicting Flow All	1826	846	0	0	857
Stage 1	846	-	-	-	-
Stage 2	980	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	85	362	-	-	783
Stage 1	421	-	-	-	-
Stage 2	364	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	79	362	-	-	783
Mov Cap-2 Maneuver	79	-	-	-	-
Stage 1	421	-	-	-	-
Stage 2	339	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.6	0	0.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	132	783
HCM Lane V/C Ratio	-	-	0.338	0.033
HCM Control Delay (s)	-	-	45.6	9.8
HCM Lane LOS	-	-	E	A
HCM 95th %tile Q(veh)	-	-	1.4	0.1

NH Route 125 at the South Project Site Roadway

2030 Build Weekday Morning Peak Hour
 5: NH Route 125 (Calef Highway) & South Site Driveway

Intersection

Int Delay, s/veh 2.2

Movement WBL WBR NBT NBR SBL SBT

Lane Configurations	W	W	N	N	S	S
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	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	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	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	-	-	-	-	-
Stage 2	1352	-	-	-	-	-
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	-	-	2.218	-
Pot Cap-1 Maneuver	62	446	-	-	895	-
Stage 1	499	-	-	-	-	-
Stage 2	241	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	54	446	-	-	895	-
Mov Cap-2 Maneuver	54	-	-	-	-	-
Stage 1	499	-	-	-	-	-
Stage 2	208	-	-	-	-	-

Approach WB NB SB

HCM Control Delay, s	90.1	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt NBT NBRWBLn1 SBL SBT

Capacity (veh/h)	-	-	85	895	-
HCM Lane V/C Ratio	-	-	0.55	0.039	-
HCM Control Delay (s)	-	-	90.1	9.2	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	2.4	0.1	-

2020 Build Weekday Evening Peak Hour
5: NH Route 125 (Calef Highway) & South Site Driveway

Intersection						
Int Delay, s/veh	6.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	38	40	1143	35	27	667
Future Vol, veh/h	38	40	1143	35	27	667
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	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	43	1242	38	29	725

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2044	1261	0	0	1280
Stage 1	1261	-	-	-	-
Stage 2	783	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	62	208	-	-	542
Stage 1	267	-	-	-	-
Stage 2	450	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	56	208	-	-	542
Mov Cap-2 Maneuver	56	-	-	-	-
Stage 1	267	-	-	-	-
Stage 2	410	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	162.8	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	90	542
HCM Lane V/C Ratio	-	-	0.942	0.054
HCM Control Delay (s)	-	-	162.8	12
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	5.3	0.2

2020 Build Saturday Midday Peak Hour
 5: NH Route 125 (Calef Highway) & South Site Driveway

Intersection

Int Delay, s/veh 1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
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	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
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
Mvmt Flow	34	27	758	37	28	836

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1669	777	0	0	795
Stage 1	777	-	-	-	-
Stage 2	892	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	106	397	-	-	826
Stage 1	453	-	-	-	-
Stage 2	400	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	99	397	-	-	826
Mov Cap-2 Maneuver	99	-	-	-	-
Stage 1	453	-	-	-	-
Stage 2	375	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	44.9	0	0.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	149	826
HCM Lane V/C Ratio	-	-	0.409	0.034
HCM Control Delay (s)	-	-	44.9	9.5
HCM Lane LOS	-	-	E	A
HCM 95th %tile Q(veh)	-	-	1.8	0.1

2030 Build Weekday Morning Peak Hour
 5: NH Route 125 (Calef Highway) & South Site Driveway

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	T		T		T	
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	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	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	20	739	30	35	1414

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2238	754	0	0	769
Stage 1	754	-	-	-	-
Stage 2	1484	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	47	409	-	-	845
Stage 1	465	-	-	-	-
Stage 2	208	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	38	409	-	-	845
Mov Cap-2 Maneuver	38	-	-	-	-
Stage 1	465	-	-	-	-
Stage 2	168	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	163.5	0	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	61	845
HCM Lane V/C Ratio	-	-	0.766	0.041
HCM Control Delay (s)	-	-	163.5	9.4
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	3.4	0.1

2030 Build Weekday Evening Peak Hour
 5: NH Route 125 (Calef Highway) & South Site Driveway

Intersection						
Int Delay, s/veh	8.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	38	40	1160	35	27	733
Future Vol, veh/h	38	40	1160	35	27	733
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	-	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	Major2		
Conflicting Flow All	2135	1280	0	0	1299
Stage 1	1280	-	-	-	-
Stage 2	855	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	54	202	-	-	533
Stage 1	261	-	-	-	-
Stage 2	417	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	49	202	-	-	533
Mov Cap-2 Maneuver	49	-	-	-	-
Stage 1	261	-	-	-	-
Stage 2	376	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	210.6	0	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	80	533
HCM Lane V/C Ratio	-	-	1.06	0.055
HCM Control Delay (s)	-	-	210.6	12.1
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	5.9	0.2

2030 Build Saturday Mldday Peak Hour
 5: NH Route 125 (Calef Highway) & South Site Driveway

Intersection

Int Delay, s/veh 2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑			↖↗
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	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	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	27	834	37	28	922

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1831	853	0	0	871
Stage 1	853	-	-	-	-
Stage 2	978	-	-	-	-
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	-	-	2.218
Pot Cap-1 Maneuver	84	359	-	-	774
Stage 1	418	-	-	-	-
Stage 2	364	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	78	359	-	-	774
Mov Cap-2 Maneuver	78	-	-	-	-
Stage 1	418	-	-	-	-
Stage 2	337	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	62.5	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	120	774
HCM Lane V/C Ratio	-	-	0.507	0.037
HCM Control Delay (s)	-	-	62.5	9.8
HCM Lane LOS	-	-	F	A
HCM 95th %tile Q(veh)	-	-	2.3	0.1

TURN LANE WARRANTS ANALYSIS

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

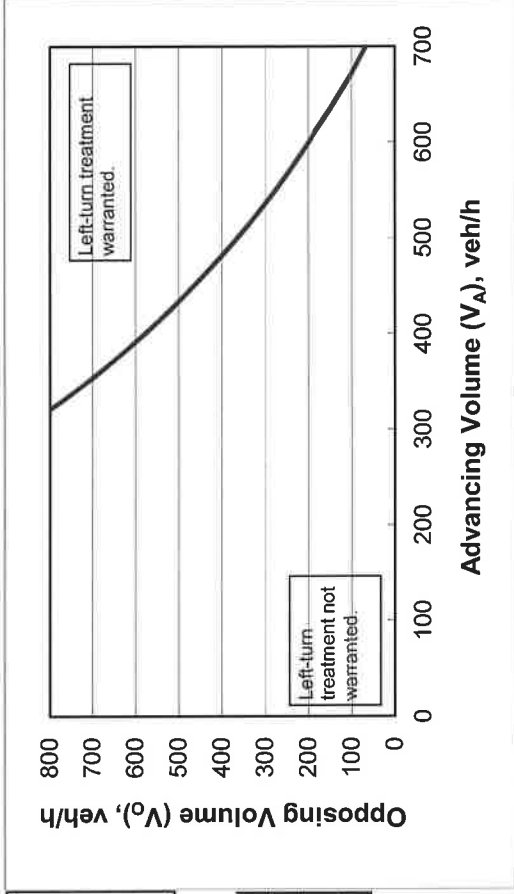
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	1229
Opposing volume (V_O), veh/h:	614

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	386
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

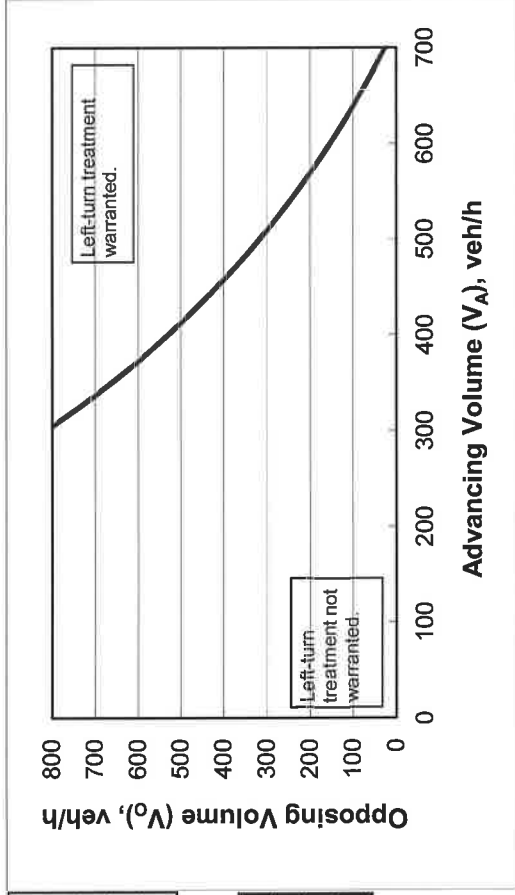
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	689
Opposing volume (V_O), veh/h:	1162

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	215
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

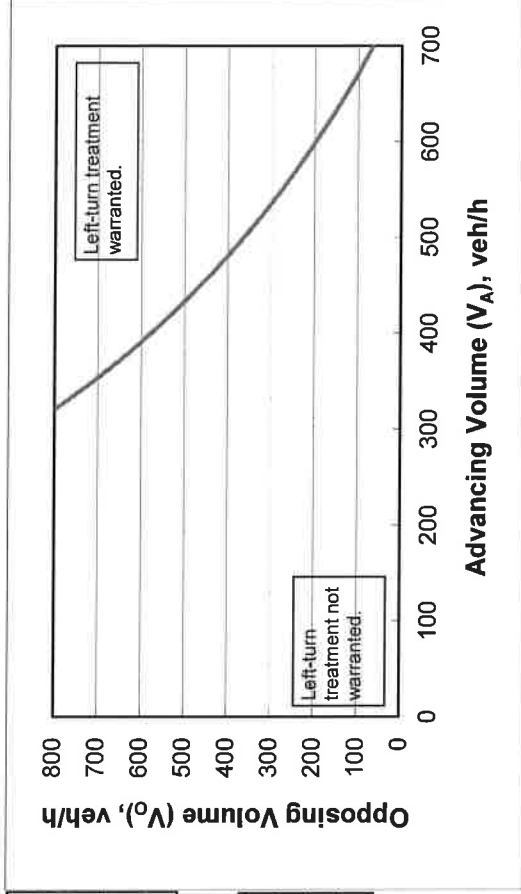
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	799
Opposing volume (V_O), veh/h:	701

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	386
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

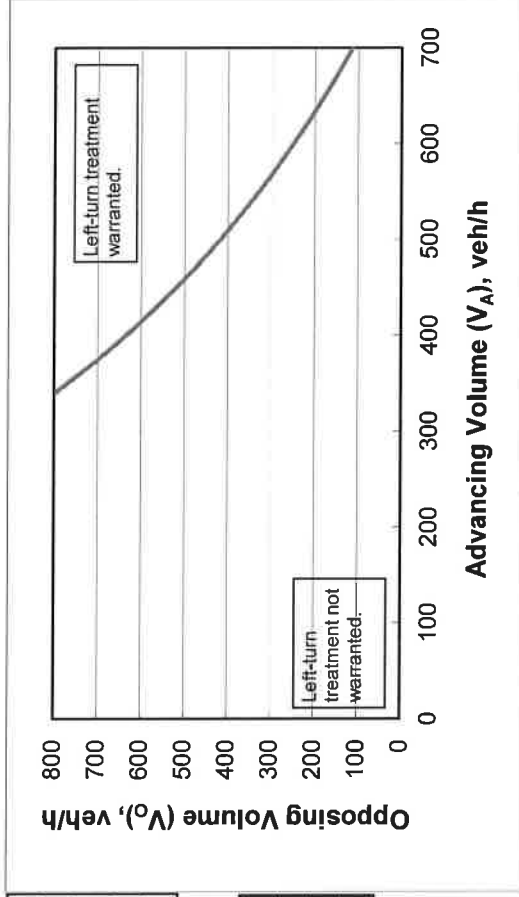
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	1351
Opposing volume (V_O), veh/h:	675

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	384
Guidance for determining the need for a major-road left-turn bay:	
	Left-turn treatment warranted.



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

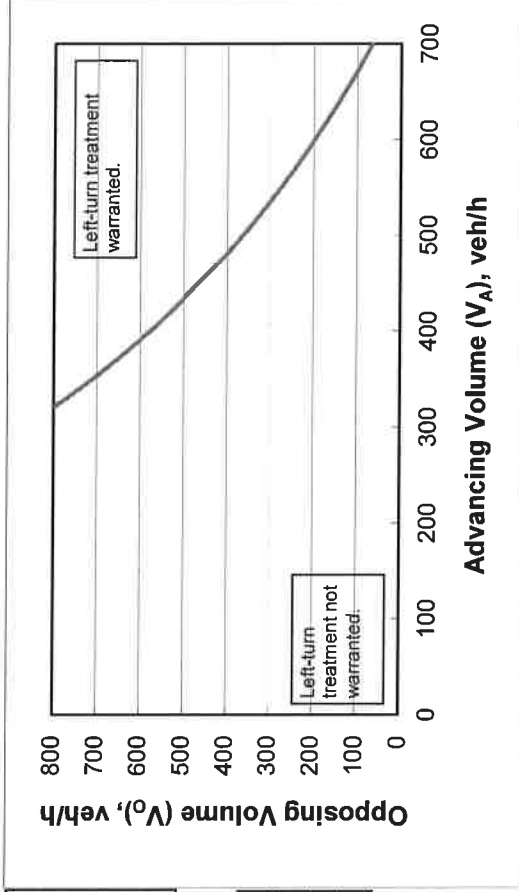
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	755
Opposing volume (V_O), veh/h:	1179

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	386
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

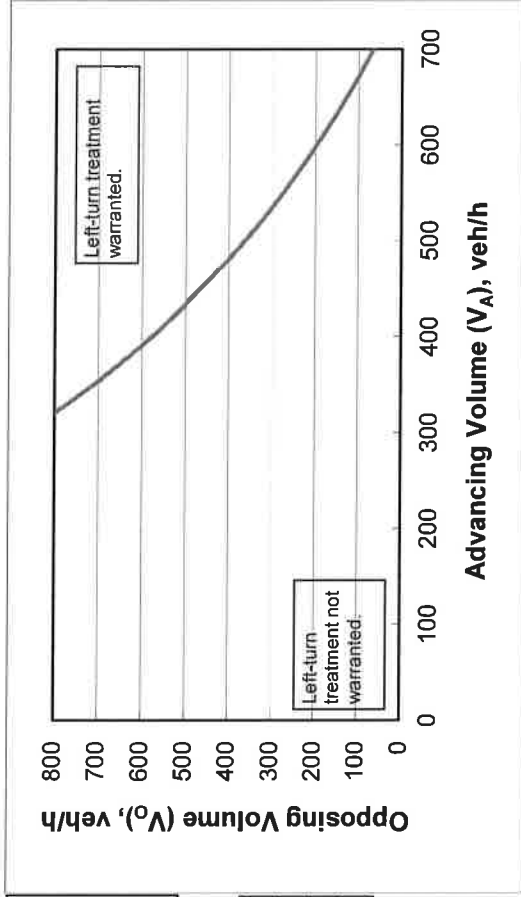
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	878
Opposing volume (V_O), veh/h:	771

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	386
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

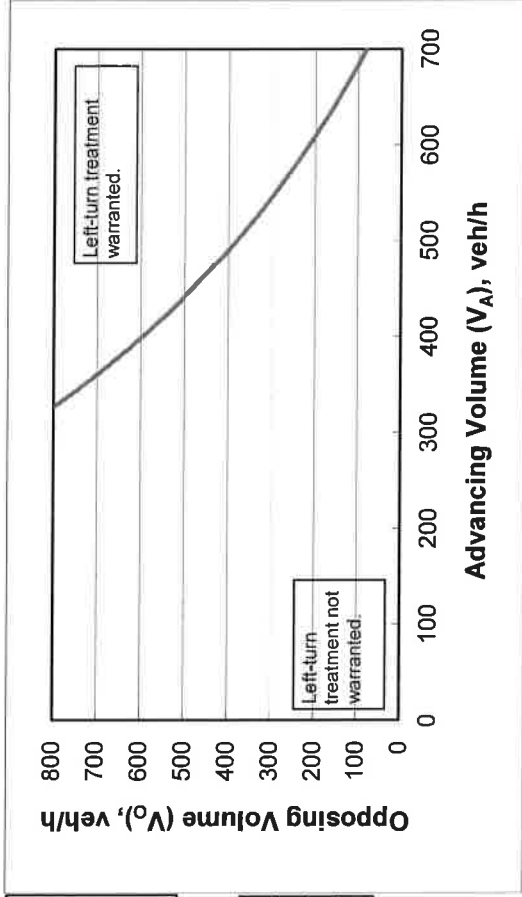
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	1211
Opposing volume (V_O), veh/h:	619

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	391
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

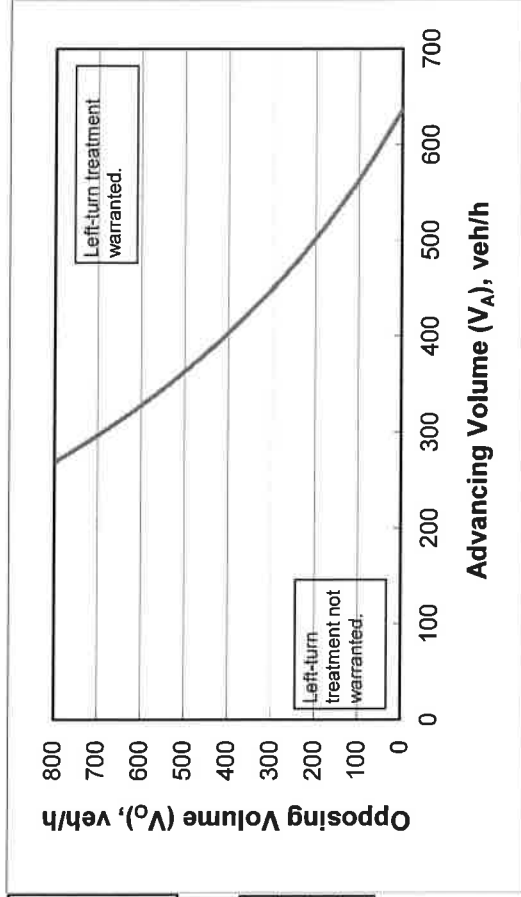
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	694
Opposing volume (V_O), veh/h:	1143

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	193
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

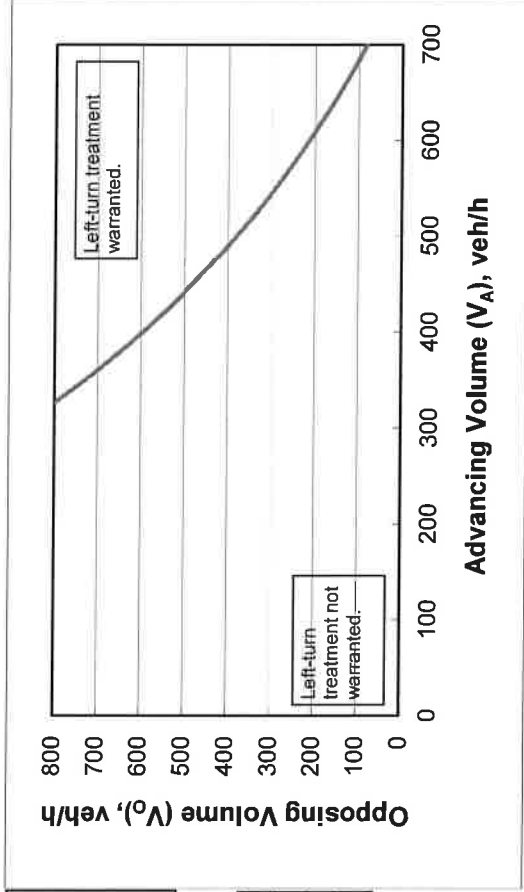
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	795
Opposing volume (V_O), veh/h:	697

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	391
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

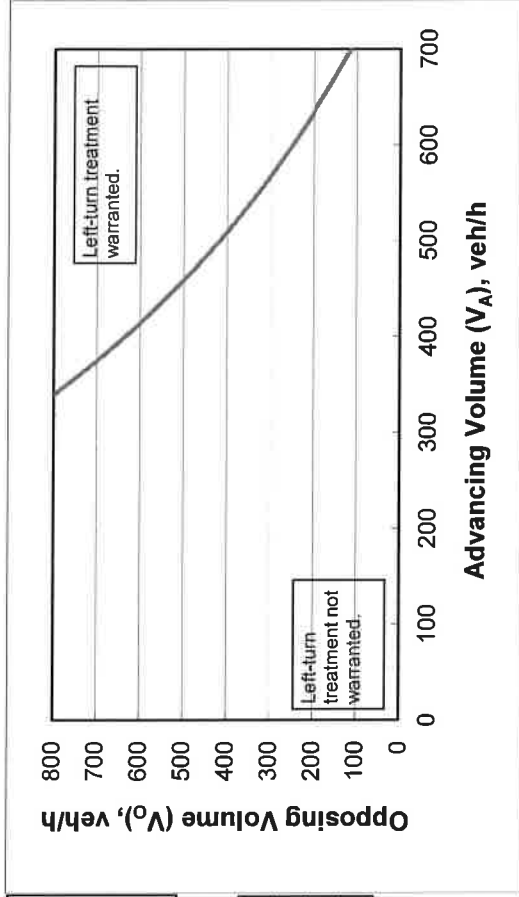
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	2%
Advancing volume (V_A), veh/h:	1333
Opposing volume (V_O), veh/h:	680

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	383
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

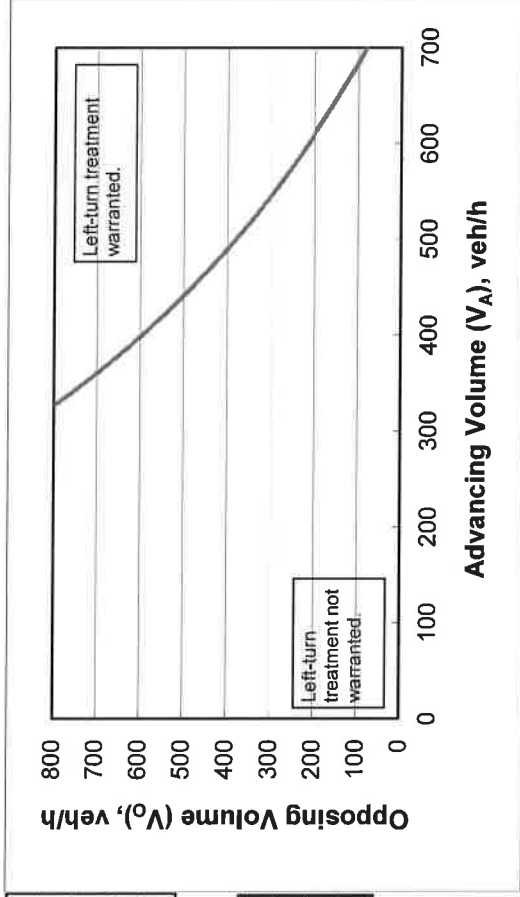
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	760
Opposing volume (V_O), veh/h:	1160

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	391
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

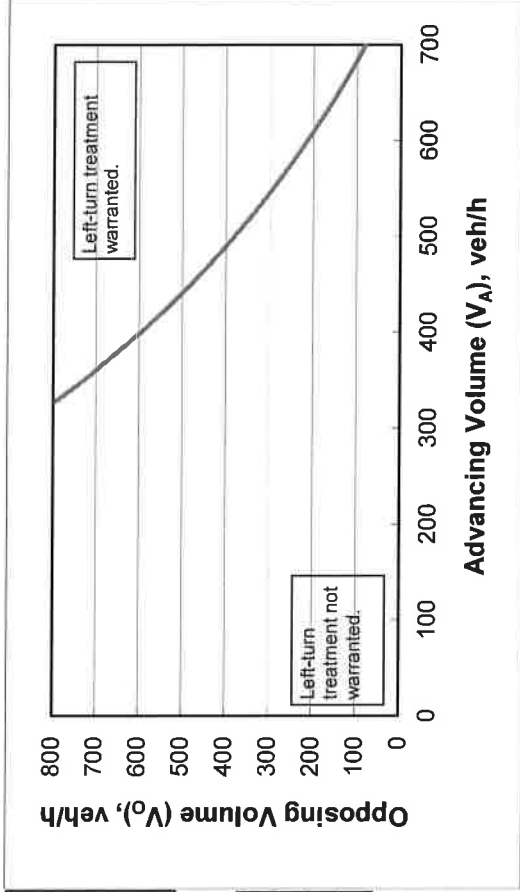
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	60
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	874
Opposing volume (V_O), veh/h:	767

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	391
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment warranted.	



CALIBRATION CONSTANTS

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

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	614
Right-turn volume, veh/h:	23

OUTPUT

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.

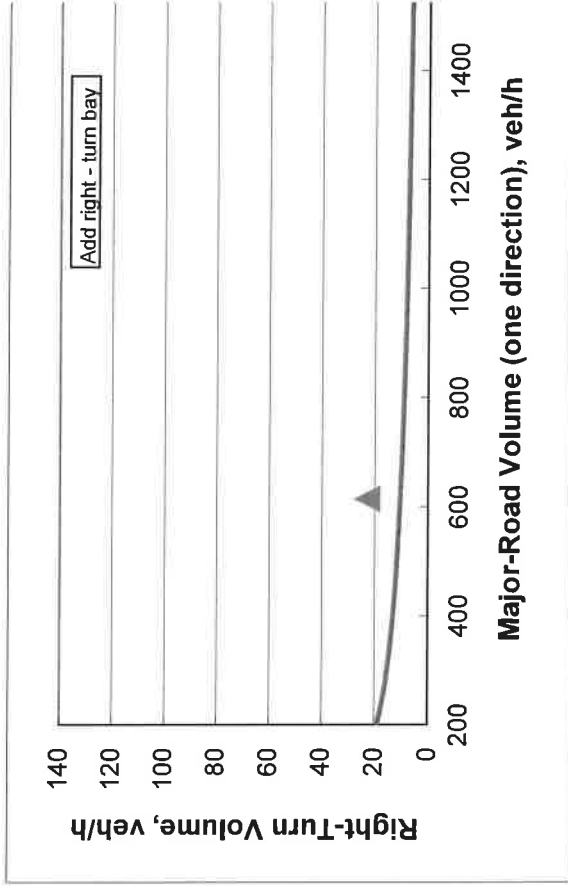


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

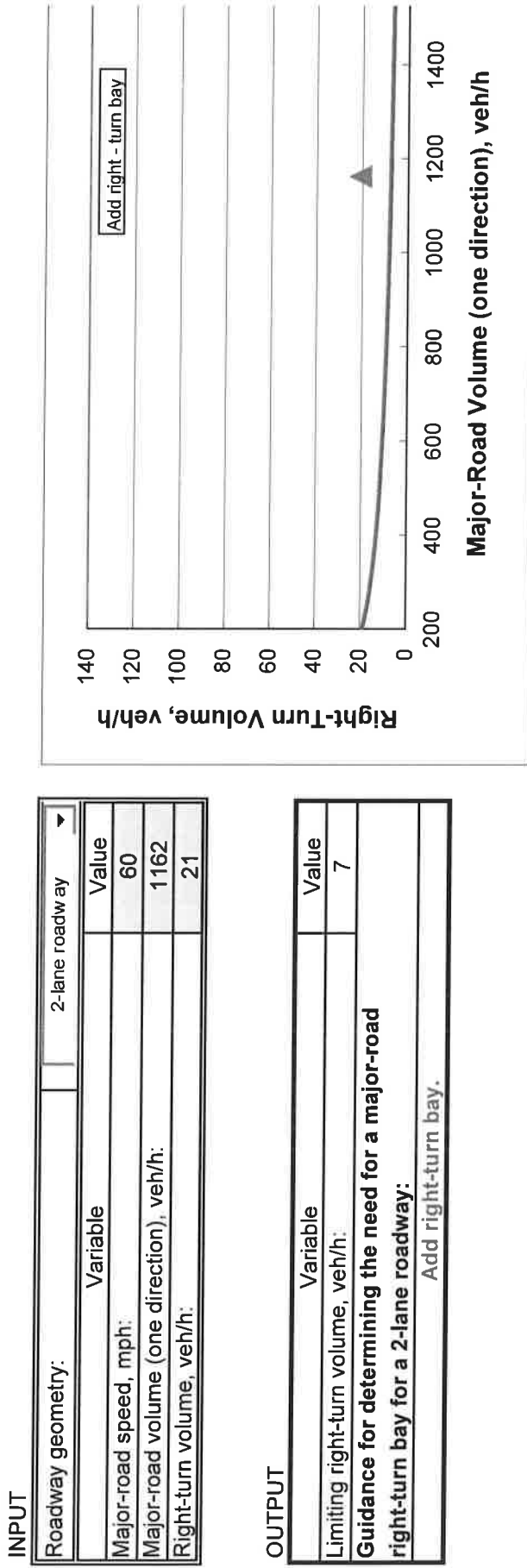


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

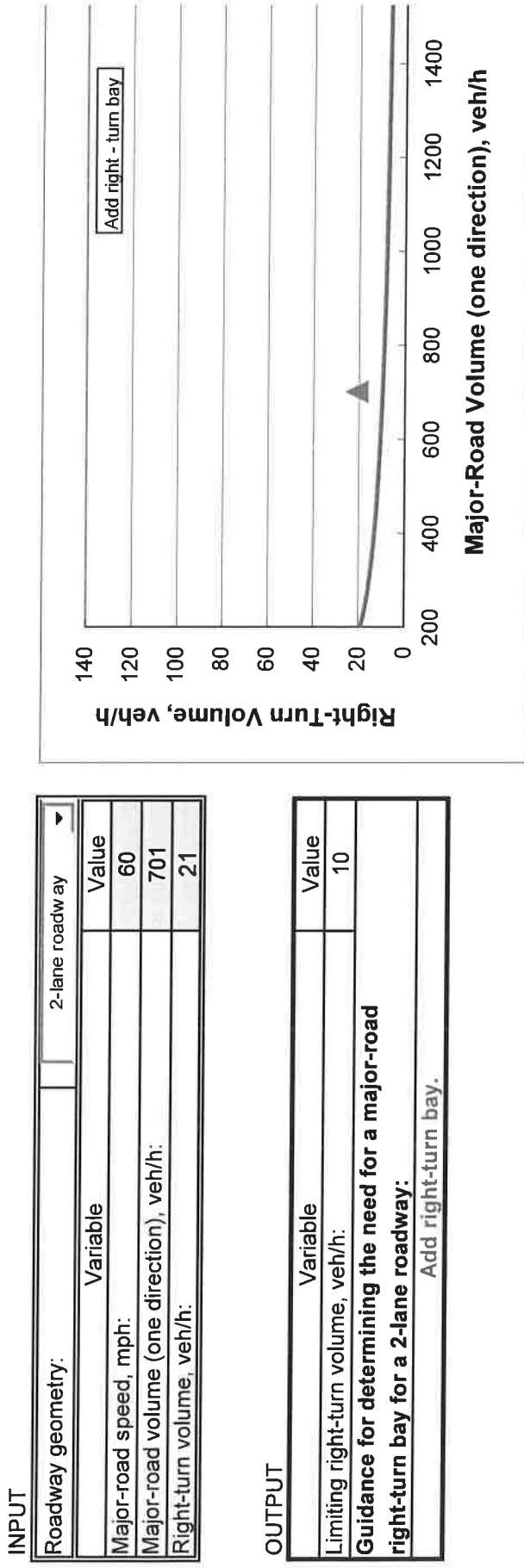


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	675
Right-turn volume, veh/h:	23

OUTPUT

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.

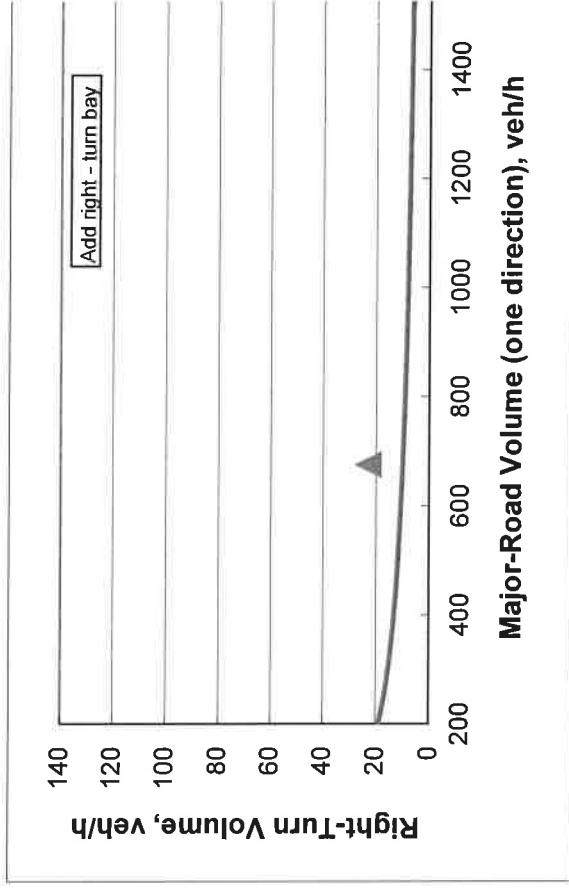


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	1179
Right-turn volume, veh/h:	21

OUTPUT

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.	

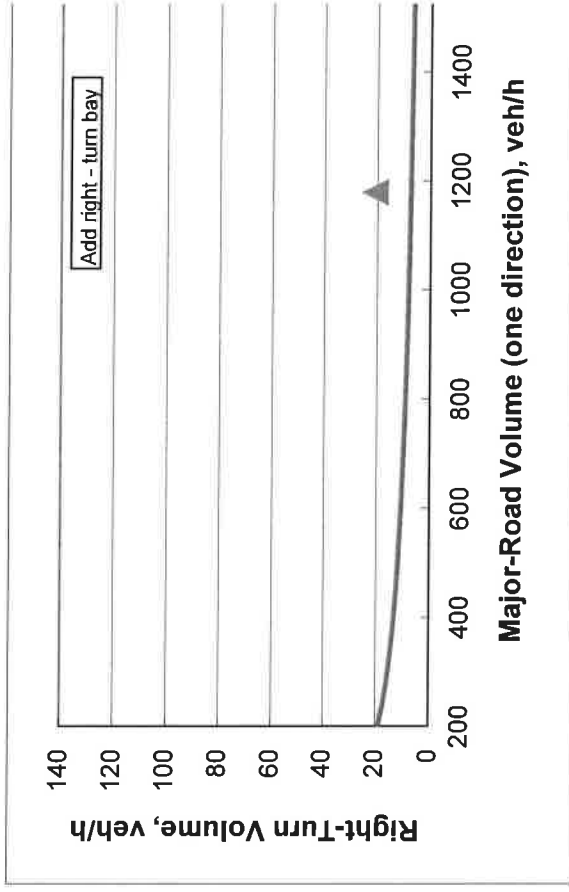


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	771
Right-turn volume, veh/h:	21

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	9
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

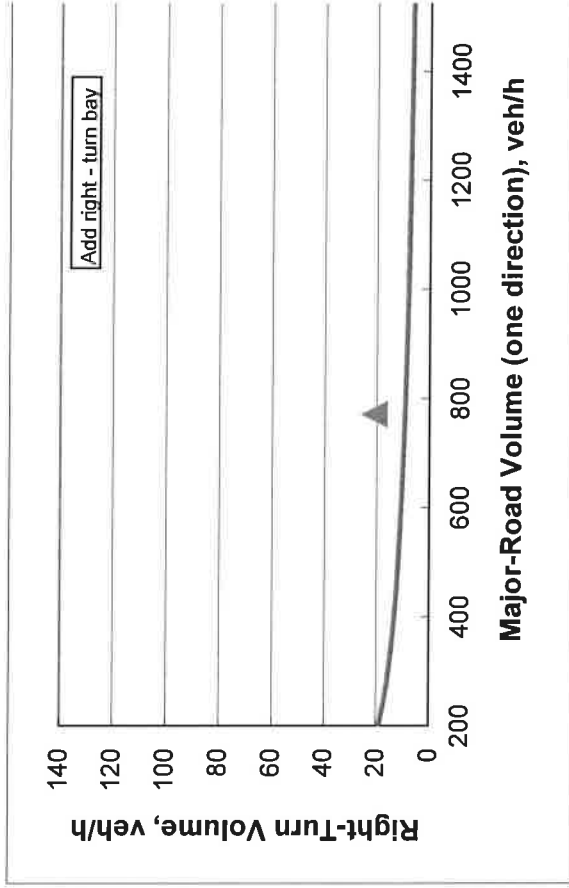


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

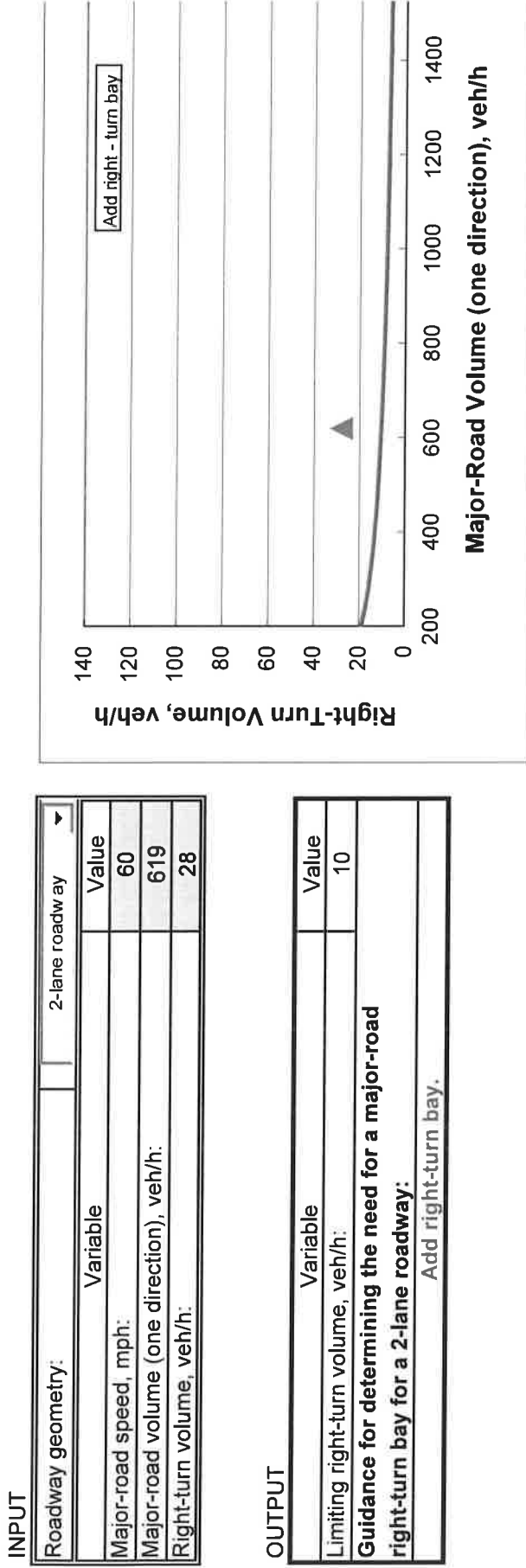


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

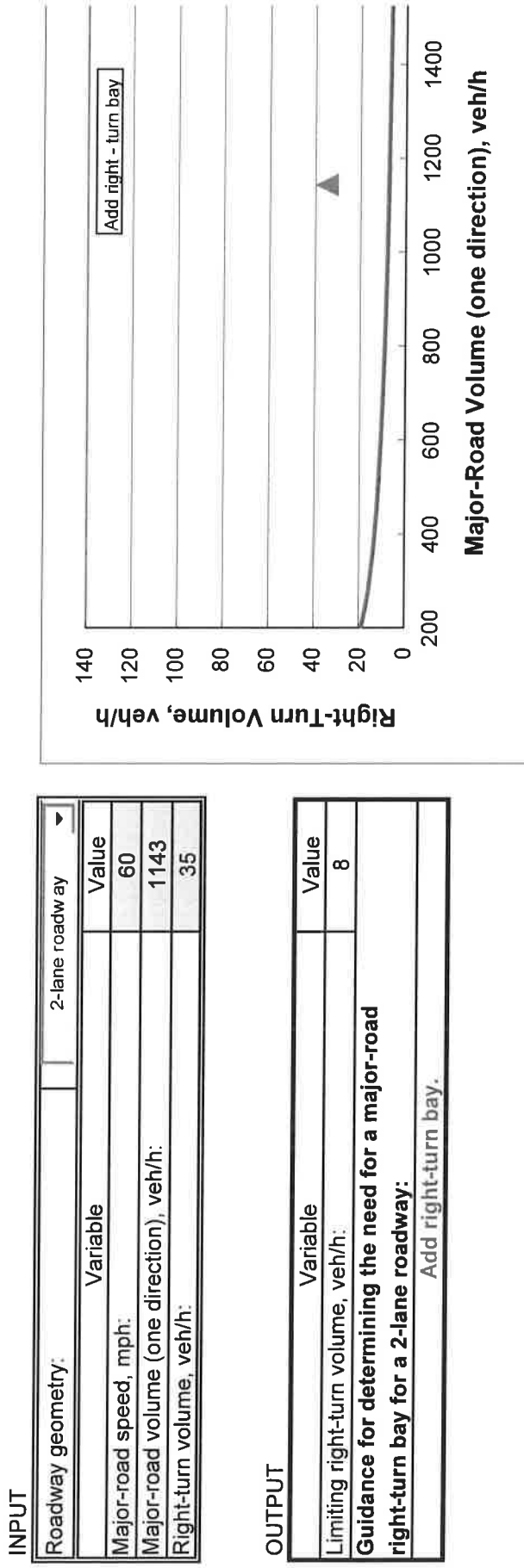


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

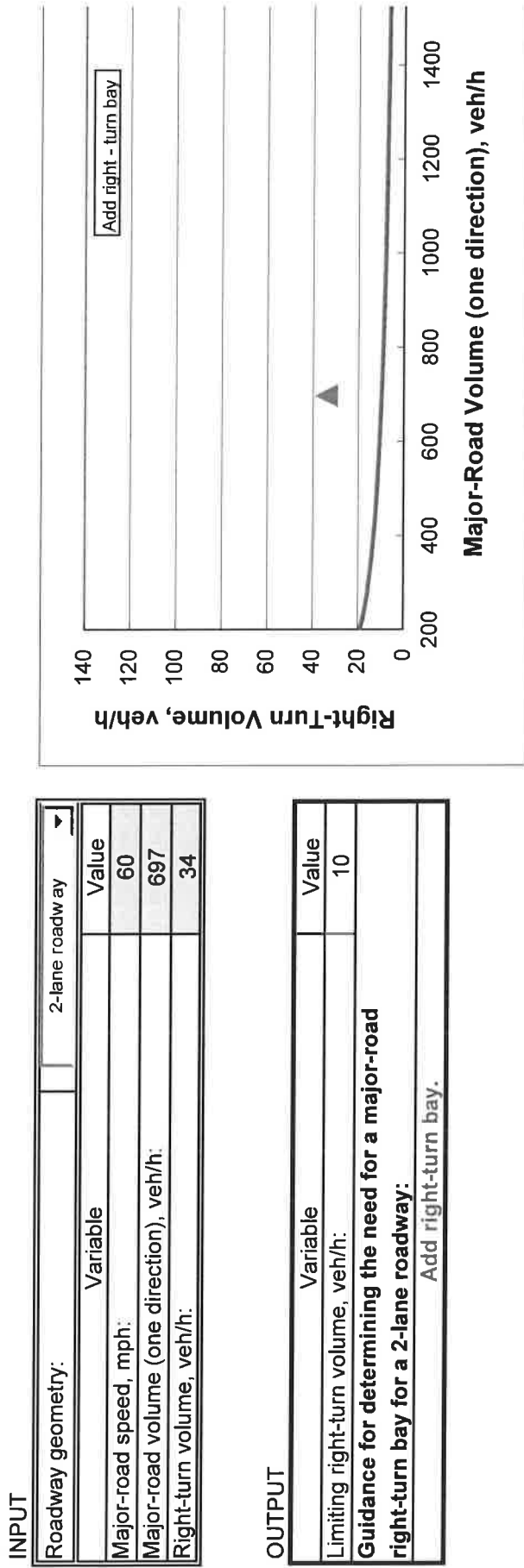


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
	<input type="button" value="Add right - turn bay"/>
Variable	Value
Major-road speed, mph:	60
Major-road volume (one direction), veh/h:	680
Right-turn volume, veh/h:	28

OUTPUT

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.

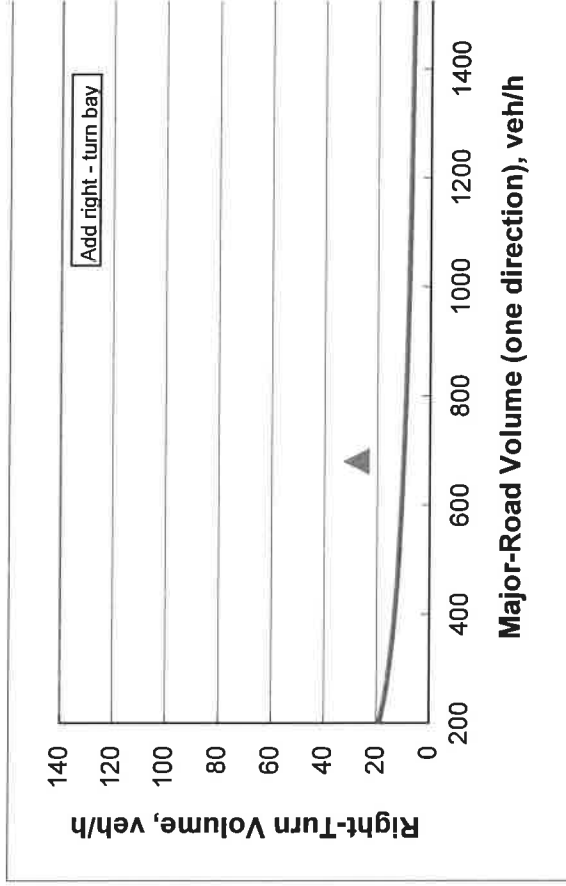


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

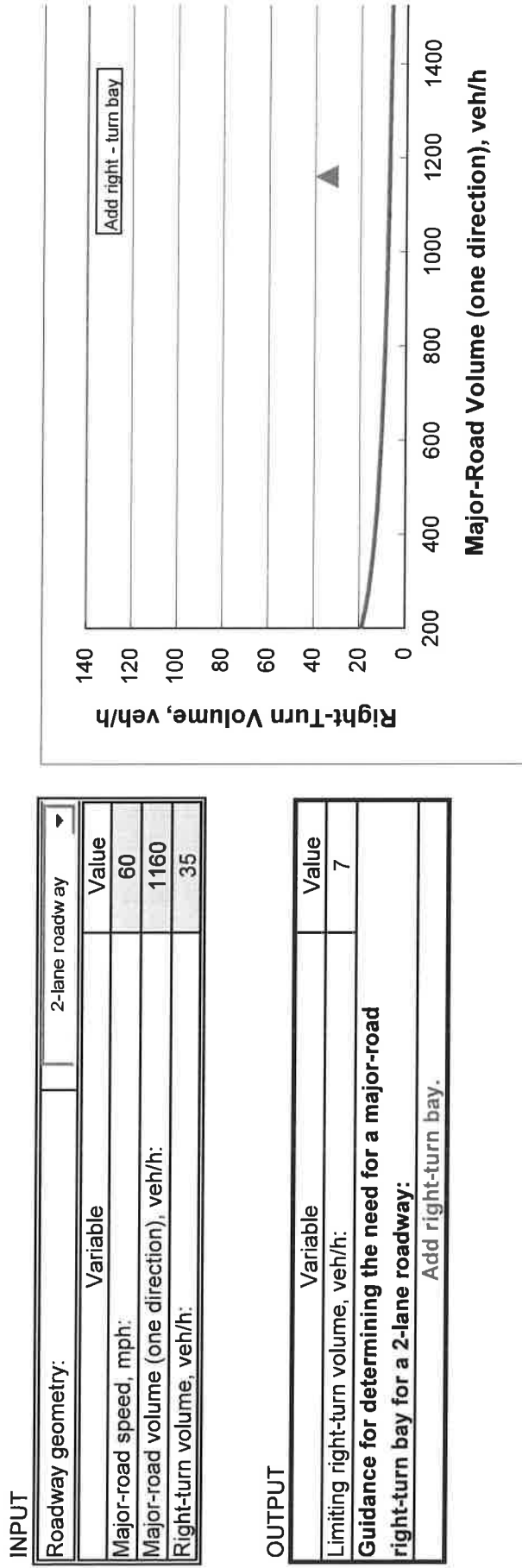


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

