

OVERTURE SENIOR RESIDENCES

TRAFFIC IMPACT STUDY



Prepared for:

The Town of Chapel Hill
Public Works Department - Engineering

Prepared by:

HNTB North Carolina, PC

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December 2017

HNTB

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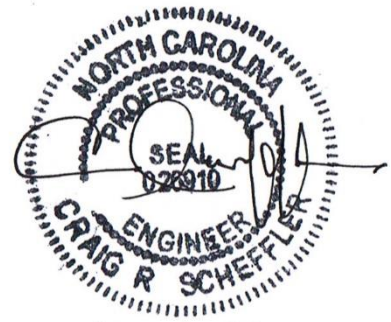
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I. EXISTING CONDITIONS

A. Project Overview

A new senior-oriented residential community, known for this study as Overture Senior Residences, is being proposed in Chapel Hill along Homestead Road near its intersection with the Weaver Dairy Road Extension. The project proposes to construct 190 attached residential units with amenities. **Figure 1** (found in **Appendix A**) shows the general location of the site. The project is anticipated to be fully complete by late 2019. This report analyzes the full build-out scenario for the year 2020 (one year after anticipated completion), the no-build scenario for 2020, as well as 2017 existing year traffic conditions.

The proposed site plan shows a provision for a full movement access driveway that connects to Homestead Road and a provision for a cross-access connection in the rear of the site to the Courtyards of Homestead residential development that is currently under construction. No other vehicular access connections are proposed. The main site driveway is proposed to have internal intersections with on-site parking areas. **Figure 2** displays the overall site plan of the Overture Senior Residences and nearby land uses and roadways. The site is expected to provide approximately 250 parking spaces on surface lots.

B. Site Location and Study Area

This report analyzes and presents the transportation impacts that the Overture Senior Residences will have on the following intersections in the project study area:

- Homestead Road and Seawell School Road
- Homestead Road and Proposed Site Driveway
- Homestead Road and Weaver Dairy Road Extension
- Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard)

The impacts of the proposed site at the study area intersections will be evaluated during the AM, noon, and PM peak hours of an average weekday. The following study is based on background traffic for the existing year, 2017, the year following the estimated site build-out year of 2019, as well as the estimated site-generated traffic produced by the residential units.

There are numerous Town-approved future developments in, or just beyond, the immediate project study area that were considered to be constructed by 2020 and may generate additional background traffic. An area-wide ambient future traffic growth percentage of 1.0 percent per year was applied to the existing volumes, based on historical average annual daily traffic (AADT) growth rate data provided by the Town of Chapel Hill and NCDOT, and consistent with recent study area traffic impact studies.

C. Site Description

The Overture site is currently a private residence and contains a large amount of undeveloped, wooded land. It borders Carolina North property to the east and south and the Courtyards of Homestead single-family home development to the west. The proposed Bridge Point development parcel is located immediately to the north of the site. Additional residential subdivisions, commercial and institutional development are present along Martin Luther King, Jr. Boulevard, the Weaver Dairy Road Extension and Homestead Road in the project study area.



The site has frontage along Homestead Road and will border the Horace Williams Trail greenway to the west. All vehicular access will utilize Homestead Road. An additional access driveway connection to the Courtyards of Homestead development on the southern/western side of the parcel will provide cross-access between the two developments. The proposed site plan, shown in **Figure 2**, indicates all parking will be accommodated on-site, through the use of existing surface parking facilities. The primary site driveway will include internal connections to parking areas adjacent to the residential units.



D. Existing and Proposed Uses in Vicinity of Site

The land uses and development in the study area are primarily residential and institutional, with some higher density commercial areas located along Martin Luther King, Jr. Boulevard. The Existing Land Use Plan shown in the 2020 *Town of Chapel Hill Comprehensive Plan* and adopted June 25, 2012, indicates that the proposed site is designated as “low-density residential 1-4 units/acre”. The Future Land Use Plan, that is also a part of the Town Comprehensive Plan, indicates that the parcel would change designation to become “medium-density residential 4-8 units/acre”. The Comprehensive Plan also indicates that this parcel is a “Future Focus Discussion Area”. The parcel is currently zoned “R-2” – delineating residential use with a density of 4 units per acre.

E. Existing and Committed Surface Transportation Network

Roadways

The Overture Senior Residences project study area features several major arterial roadways serving areas throughout the Town of Chapel Hill and points beyond, as well as a number of collector and local access streets. **Table 1** summarizes pertinent information on the study area roadway facilities.

Table 1. Existing Study Area Roadways

| Road Name | Functional Classification* | Study Area Cross-Section | 2015 AADT | Speed Limit | Sidewalk | On-Street Parking |
|---|----------------------------|--|-----------|-------------|----------|-------------------|
| N.C. 86 (Martin Luther King, Jr. Boulevard) | Other Principal Arterial | 4 lane median divided | 25,000 | 35 | Y | N |
| Homestead Road | Minor Arterial | 2 lane undivided / 3 lane undivided with TWLTL | 8,100 | 35 | S | N |
| Weaver Dairy Road Extension | Local | 2 lane median divided | N/A | 25 | Y | N |
| Seawell School Road | Minor Collector | 2 lane undivided | 3,700 | 35 | S | N |

S – Some Sidewalk/Parking Present TWLTL – Two-Way Left-turn Lane
 * - As defined on the NCDOT Functional Classification web page <http://ncdot.maps.arcgis.com/home/webmap/viewer.html>

AAADT data was taken from 2015 AADT mapping produced by the NCDOT Traffic Survey Unit. **Figure 3** shows the existing lane configuration, traffic control, and speed limits for these study area roadways. Detailed descriptions of several of the major study area roadways are as follows:



- **N.C. Highway 86 (Martin Luther King Jr, Blvd)** is a principal arterial in the study area, serving areas from I-40 (via Martin Luther King Jr. Boulevard) to downtown Chapel Hill and the US 15-501 corridor to the south. In the study area vicinity, Martin Luther King, Jr. Boulevard is a four lane divided cross-section north of Homestead Road and a five-lane undivided section (with two-way left-turn lane) south of Homestead Road. There are multiple driveway access points along the roadway and several major street intersections. No on-street parking is permitted along N.C. 86 in the project study area. Several bus stops are located along the facility. The posted speed limit is 35 mph in the study area.
- **Homestead Road** is a minor arterial that connects areas of west and north Chapel Hill. In the study area, Homestead Road is an undivided facility with sections near NC 86 that feature a continuous center left-turn lane with a 35 mph speed limit. It transitions to a two-lane undivided facility west of the existing Southern Orange County Human Services Center. Several bus stops are located along the facility.
- **Seawell School Road and Weaver Dairy Road Extension** are collector/local streets that provide access to residential neighborhoods along Homestead Road and multiple schools along Seawell School Road. Both are two-lane facilities, with Weaver Dairy Road Extension having a raised center median. The posted speed limit is 25 mph on the Weaver Dairy Road Extension and 35 mph on Seawell School Road.

Intersections

Table 2, below, summarizes all three existing study area intersections, traffic control features, and pedestrian amenities at each. Laneage details and intersection turn bay lengths are also detailed on **Figure 3**.

Table 2. Existing Study Area Intersection Details

| Intersection | Traffic Control | Signal Phases | Signal Operation | Cross walk | Ped Signals |
|--|------------------------|----------------------|-------------------------|-------------------|--------------------|
| Homestead Road and Seawell School Road | Sig | 3 | Free-Run | No | No |
| Homestead Road and Weaver Dairy Road Extension | Sig | 3 | Free-Run | Yes (1) | Yes (1) |
| Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard) | Sig | 8 | Coordinated | Yes (4) | Yes (4) |

The project study area along Homestead Road features a mixture of signalized and unsignalized intersections. The N.C. 86 (Martin Luther King, Jr. Boulevard) corridor features coordinated signal operation for weekday peak hours.

Bicycle Routes and Sidewalks

Specific bicycle facilities are present in the immediate study area, with striped bicycle lanes in both directions along Martin Luther King, Jr. Boulevard north of Homestead Road. A bicycle lane is also present on Weaver Dairy Road Extension in the northbound direction and Seawell School Road in the southbound direction. Pedestrian sidewalk is found along both sides of Martin Luther King Jr. Boulevard through the study area. Additional connectivity exists along the Homestead Road corridor from Martin Luther King, Jr. Boulevard to Northern Park Drive (both sides) and past the existing Southern Orange County Human Services Driveway (south side of Homestead Road). Sidewalk is also present on one side of the Weaver Dairy Road Extension and along Seawell School Road south of Homestead Road. Crosswalks and pedestrian signals are present across Martin Luther King, Jr. Boulevard at the



Homestead Road intersection. A crosswalk is also present at the Homestead Road and Northern Park Drive intersection in the study area. The Horace Williams Trail Greenway is located just south of the Weaver Dairy Road Extension and there is a signalized pedestrian crossing across Homestead Road that connects the Greenway to the Weaver Dairy Road Extension. **Figure 4** displays a schematic of existing pedestrian and bicycle facilities in the project study area.

Transit Routes

Current Chapel Hill Transit (CHT) Routes A, HS, NS and T serve the project study area along NC 86 (Martin Luther King, Jr. Boulevard) and Homestead Road with weekday bus service (T Route also provides Saturday service). Several bus stops, with a range of amenities (shelters, benches), are present in the study area. **Table 3** details the four current CHT routes serving the study area. Most buses run on 15, 30, or hour headways during weekday peak service periods. The A Route currently provides service directly to the Seymour Senior Center and Southern Orange Government Services Campus to the east of the Overture site, and the HS Route provides service immediately on Homestead Road.

GoTriangle provides regional bus service to the immediate study area via the 420 Route that runs along NC 86 between Chapel Hill and Hillsborough. Service for this route occurs at 30 minute headways during peak weekday periods. GoTriangle also provides express bus service from Chapel Hill to Raleigh on the CRX Route that operates along NC 86 (Martin Luther King, Jr. Boulevard) in the study area on 30 minute headways during weekday peak hours.

Table 3. Current Study Area Weekday Transit Service

| Route | Headways (minutes) | | | Study Area Stops | Destinations |
|----------------------------|--------------------|---------|----------|--|--|
| | AM Peak | PM Peak | Off Peak | | |
| Chapel Hill Transit | | | | | |
| A | 30 | 30 | 30-60 | <ul style="list-style-type: none"> • Southern Orange County Human Services • Seymour Senior Center • Chapel View Apartments | <ul style="list-style-type: none"> • NC 86 Corridor • Downtown Chapel Hill • UNC Campus/Hospitals Area |
| NS | 10 | 10 | 20-40 | <ul style="list-style-type: none"> • Eubanks Road Park & Ride • Weaver Dairy Road Area • NC 86 Corridor | <ul style="list-style-type: none"> • UNC Campus/Hospitals Area • UNC Park and Ride • Southern Village Park and Ride |
| T | 25 | 35 | 35 | <ul style="list-style-type: none"> • Timberlyne Shopping Ctr • Westminster Circle • NC 86 Corridor | <ul style="list-style-type: none"> • UNC Campus/UNC Hospitals • Downtown Chapel Hill • E. Chapel Hill HS/Cedar Falls Pk |
| GoTriangle | | | | | |
| 420 | 30 | 30 | N/A | <ul style="list-style-type: none"> • NC 86 Corridor | <ul style="list-style-type: none"> • Hillsborough • Downtown Chapel Hill/UNC Campus |
| CRX | 15-35 | 15-35 | N/A | <ul style="list-style-type: none"> • None (Express Service) | <ul style="list-style-type: none"> • Downtown Chapel Hill/UNC Campus • Eubanks Park-and-Ride • Raleigh |

Sources: CHT 2017 Fall Ride Guide, <http://www.gotriangle.org/maps-and-schedules>

Figure 5 displays transit routes and bus stops that currently exist in the project study area. The potential for transit trips are accounted for in the Overture Senior Residences site in the following sections of this report, as the proximity and frequency of transit service directly near proposed site may account for a measurable portion of site trips.



Recommended/Committed Surface Transportation Improvement Projects

There are no committed/programmed NCDOT State Transportation Improvement Program (STIP) projects, Town of Chapel Hill transportation improvement projects, or private development-related projects to improve roadway facilities in the study area that are expected to be complete by 2020. Several development projects near the study area have recommended, as part of their traffic impact study reports, reoptimization of traffic signals along the NC 86 (Martin Luther King, Jr. Blvd) corridor.

There are numerous additional recommended improvements to transportation facilities in Overture Senior Residences project study area that may occur as the Carolina North development progresses just to the south of the project study area. However, any additional improvements due to Carolina North were considered post-2020 analysis year for the purposes of this study.

F. Existing Traffic Conditions

Figure 6 shows the existing AM, noon, and PM peak hour traffic volumes for the study area intersections. The counts used to determine these volumes were conducted in October 2017 for all study area intersections during the weekday periods 7:00 - 9:00 AM, 11:30 AM – 1:30 PM, and 4:00 – 6:00 PM. This data, along with all turning movement count output is found in **Appendix B**.

Traffic count information shows traffic flows on N.C. 86 (Martin Luther King, Jr. Boulevard) were heavy during the AM and PM peak count periods, with southbound flows into downtown Chapel Hill heaviest in the AM peak and northbound return flows heaviest in the PM peak. Traffic on Homestead Road was moderate to heavy during the peak commuting periods. Traffic flows were light to moderate on the remaining study area roadways that function as collector or local access streets. **Table 4** provides a detailed listing of each intersection count, peak hour, and count date.

Table 4. Traffic Count Information

| Traffic Count Location | Period Counted | Peak Hour | Date of Count |
|--|----------------|-----------------|---------------|
| Homestead Road and Seawell School Road | AM Peak | 7:30 – 8:30 AM | 10/5/17 |
| | Noon Peak | 12:30 – 1:30 PM | |
| | PM Peak | 4:45 – 5:45 PM | |
| Homestead Road and Weaver Dairy Road Extension | AM Peak | 7:30 – 8:30 AM | 10/5/17 |
| | Noon Peak | 12:15 – 1:15 PM | |
| | PM Peak | 5:00 – 6:00 PM | |
| Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard) | AM Peak | 7:45 – 8:45 AM | 10/5/17 |
| | Noon Peak | 12:00 – 1:00 PM | |
| | PM Peak | 4:45 – 5:45 PM | |

II. 2020 BUILD-OUT YEAR +1 CONDITIONS

A. Future Ambient Area-Wide Traffic Growth Estimation

Based on information on average daily traffic collected by the Town of Chapel Hill and the NCDOT, a yearly ambient traffic growth rate of 1.0 percent per year was used for the short-term 2020 design year capacity analyses. This rate is based on previous and anticipated growth trends for this area from Town and NCDOT average daily traffic information from the period 2003-2015, and is generally consistent with recent traffic impact studies near the project study area. **Figures 7A and 7B** show ambient area-wide growth traffic volume projections.



It is important to also note that multiple background traffic generating developments were included in this study, and would likely contribute a significant portion of new trips in the Homestead Road corridor between 2017 and 2020, if all of these projects were built and occupied to their approved land use intensities.

B. Approved Background Development Traffic Estimation

Per information from Town of Chapel Hill staff and the Town’s Development Activity Report, four Town-approved developments that are either currently under construction or are expected to be built out and fully operational by the 2020 design analysis year were studied for the inclusion of specific background traffic for this report. The four developments are listed in **Table 5**, along with their current status and impact to 2020 traffic volumes.

Table 5. Study Area Background Development Status

| Development Name | Fall 2017 Status | Development Density | TIS Completed? | 2020 Traffic Impact |
|--|---------------------------|---|-------------------|--|
| Bridge Point | Approved, Not Constructed | Original SUP – 32 Townhomes 27k SF Retail | Yes – RS&H (2009) | Assume 100% built out – specific generator |
| The Edge – 2013 Update | Under Construction | 157k SF Office 196k Shopping Ctr 431 Apartments | Yes – HNTB (2013) | Assume 100% built out – specific generator |
| Courtyards of Homestead (Retreat at Homestead Road, Cottages of Chapel Hill) | Under Construction | 63 Single Family Homes | No | Assume 100% built out – specific generator |
| Southern Orange County Government Services Complex | Approved, Not Constructed | 50,000 SF Additional Space | Yes – HNTB (2014) | Assume 100% built out – specific generator |

Figure 8 shows the relative location of the approved background developments. Total approved background traffic volumes (corresponding to the 2020 Without Site Traffic Scenario) for the Overture Senior Residences study area are shown in **Figure 9**.

Appendix C displays individual background traffic generator peak hour volumes estimates projected across the project study area. Traffic assignment from the four specific generator developments was estimated based on information already compiled for *The Edge Mixed-Use Development Traffic Impact Study - 2013 Update* (HNTB, 2013), the *Southern Orange County Government Services Campus Traffic Impact Study* (HNTB, 2014), and *Fraley Property (Bridge Point) Traffic Impact Study* (RS&H, 2007). Background traffic from the Courtyards of Homestead project was generated and assigned using similar methodologies to the Overture site traffic distribution/assignment detailed in the following section. Background traffic assignment in the project study area that was beyond the original traffic impact study areas was determined by using current turning movement peak hour volumes and engineering judgment.

C. Proposed Project Traffic

i. Trip Generation

Projected trips for the proposed government services facility expansion were generated based on the *ITE Trip Generation Manual* (Institute of Transportation Engineers, 9th Edition, 2013). Trip generation methodologies for estimated trips utilize the number of dwelling units and average rate methodology



(per NCDOT recommendations) as trip-generating variables. **Table 6** shows the number of vehicular trips generated by existing Overture Senior Residences during the weekday AM, noon, and PM peak hours of adjacent streets, based on the generation methodologies described above. A peak hour truck percentage of two percent was estimated for all site-generated traffic.

Table 6
Existing Weekday Peak Hour Vehicle Trip Generation Summary

| Description | Density | Daily | | | AM Peak | | | Noon Peak | | | PM Peak | | |
|---|-----------|-------|------|-------|---------|------|-------|-----------|------|-------|---------|------|-------|
| | | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| Senior Adult Housing – Attached (ITE LUC 252) | 190 Units | 327 | 327 | 654 | 13 | 25 | 38 | 20 | 24 | 44 | 26 | 22 | 48 |

ii.) Adjustments to Trip Generation Rates

Raw ITE trip generation estimates for daily and peak hour trips are typically adjusted for the following factors to reduce raw trip generation estimates to actual estimated vehicular trips produced by the Overture Senior Residences development.

a.) Internal Capture

The land uses proposed for Overture Senior Residences development would not exhibit the potential for internally captured trips for any on-site uses. No additional modifications or reductions were made to trip generation results to account for internal capture.

b.) Modal Split

The study area is well served by several CHT and Triangle Transit fixed bus routes with frequent existing service and also has facilities for pedestrians and bicyclists with good connectivity to trip attractions in downtown Chapel Hill and the UNC Main Campus. To be conservative, no quantitative reductions in vehicular trips was made using these modes. However, it is recognized that some peak period trip-making will occur with the availability and connectivity provided for non-motorized transportation.

c.) Pass-by Trips

No pass-by trips were accounted for in this study, since the proposed Overture Senior Residences is not a typical pass-by trip generator.

d.) Trip Generation Budget

Current plans for Overture Senior Residences are for the project to be built in a single phase. No consideration was made for the need for a trip generation budget if the site is built-out to what is currently shown on the site plans.

iii.) Trip Distribution

Trip distribution for site-related traffic was based existing daily and peak hour traffic patterns to determine the directional peak hour characteristics of traffic to and from the site from the major study area thoroughfares. No local trips to/from several lower volume collector and residential streets were estimated, though the possibility exists a small portion of trip-making may occur to/from these local streets. Basic distribution estimates for site traffic flow utilized existing peak hour turning



movement counts and overall comparison to local and regional trip attractors. **Figure 11** presents the projected trip distribution traffic percentages for the proposed site in 2020.

iv.) Trip Assignment

Figure 12 shows the corresponding site traffic volumes distributed on the 2020 study area network. Total volumes into and out of the site correspond to total external vehicular trips generated, based on the trip generation methodology developed previously. It was assumed that the proposed site access point along Homestead Road would feature full access for future traffic assignment and that no site traffic would use the future cross-connection to the Courtyards at Homestead development.

D. Future Traffic Forecasts with the Proposed Development

Figure 13 displays the 2020 Build-out+1 year projected study area traffic volumes with site traffic added. These traffic volumes represent the aggregate traffic growth over existing traffic volumes for a) ambient traffic growth, b) specific background development traffic assignments from those developments, and c) estimated site traffic assignments for Overture Senior Residences. With the future cross-connectivity provided between the Overture site and the Courtyards at Homestead site, it was assumed that a small portion (10 percent or less) of the Courtyards at Homestead background traffic would utilize the proposed Overture site driveway to gain access to Homestead Road. This background traffic was redistributed and added to the Overture Site Driveway and respective turning movements along Homestead Road. **Appendix D** contains all the peak hour scenario volume development spreadsheets used in the estimation of 2020 traffic volumes for both the with and without site scenarios.

III. IMPACT ANALYSES

A. Peak Hour Intersection Level of Service Analysis

i.) Methodology

Evaluation of traffic operations on suburban arterial, collector, and local roadway facilities is most effective through the determination of level of service (LOS) criteria. The concept of level of service correlates qualitative aspects of traffic flow to quantitative terms. This enables transportation professionals to take the qualitative issues, such as congestion and substandard geometrics, and translate them into measurable quantities, such as operating speeds and vehicular delays. The 2010 *Highway Capacity Manual (HCM 2010)* characterizes level of service by letter designations A through F. Level of service A represents ideal low-volume traffic operations, and level of service F represents over-saturated high-volume traffic operations. Level of service is measured differently for various roadway facilities, but in general, level of service letter designations are described by the following in **Table 7**.

The minimum acceptable peak hour intersection level of service established for this project is LOS D for signalized intersections or LOS E for critical movements at unsignalized intersections, or no increase in delay for signalized intersections operating below LOS D or unsignalized intersection critical movements operating below LOS E without the inclusion of site traffic. The following four conditions were evaluated:

- Condition 1** - Existing Traffic
- Condition 2** - 2020 Traffic without Site Traffic
- Condition 3** - 2020 Traffic with Site Traffic Volumes Added
- Condition 4** - 2020 Traffic with Site Traffic and Improvements



Table 7. Level of Service (LOS) Characteristics

| Level of Service Description | Per Vehicle Delay at Signal | Per Vehicle Delay at Stop Sign |
|--|-----------------------------|--------------------------------|
| LOS A ➤ Free flow ➤ Freedom to select desired speed and to maneuver is extremely high ➤ General level of comfort and convenience for motorists is excellent | < 10.0 sec | < 10.0 sec |
| LOS B ➤ Stable flow ➤ Other vehicles in the traffic stream become noticeable ➤ Reduction in freedom to maneuver from LOS A | 10.0 – 20.0 sec | 10.0 – 15.0 sec |
| LOS C ➤ Stable flow ➤ Maneuverability and operating speed are significantly affected by other vehicles ➤ General level of comfort and convenience declines noticeably | 20.0 – 35.0 sec | 15.0 – 25.0 sec |
| LOS D ➤ High density but stable flow ➤ Speed/freedom to maneuver are very restricted ➤ General level of comfort / convenience is poor ➤ Small increases in traffic will generally cause operational problems | 35.0 – 55.0 sec | 25.0 – 35.0 sec |
| LOS E ➤ Unstable flow ➤ Speed reduced to lower but relatively uniform value ➤ Volumes at or near capacity level ➤ Comfort and convenience are extremely poor ➤ Small flow increases or minor traffic stream disturbances will cause breakdowns | 55.0 – 80.0 sec | 35.0 – 50.0 sec |
| LOS F ➤ Forced or breakdown flow ➤ Volumes exceed roadway capacity ➤ Formation of unstable queues ➤ Stoppages for long periods of time because of traffic congestion | > 80.0 sec | > 50.0 sec |

The *Synchro Professional Version 9* operations analysis software was used to analyze peak hour conditions at signalized intersections. Synchro was also used to analyze peak hour conditions at unsignalized intersections, through the use of its HCM 2010 two-way stop controlled output function. The methodology of evaluating each condition for signalized intersections is presented below:

- **Condition 1** – Use current Town of Chapel Hill data for the cycle length, splits and offsets of individual signalized intersections and report LOS and delay values from Synchro.
- **Conditions 2 and 3** – Reoptimize the cycle lengths and splits of individual intersections in Synchro, if existing timing data does not provide adequate overall intersection LOS. Adjust cycle lengths, splits, and offsets, if necessary, if the signal is currently operating in a coordinated system. The optimized signal timing information will be held constant for both Conditions, to provide a means to compare effects of the proposed site traffic. No changes to free run traffic signal inputs were made for Conditions 2 and 3.



- **Condition 4** – Optimize coordinated traffic signals for effects of recommended mitigation strategies that change existing/committed changes to lane geometrics. Evaluate the potential for different signal phasing schemes (left-turn lag phases, for example). Retain existing split minimums and any pedestrian timing values. Recommendations, if warranted, will be made to obtain at least LOS D for the intersection as a whole.

The net effect of this process is that direct comparisons, by movement, of delay and LOS between each of the three conditions are impossible because splits and cycle lengths can and do change between conditions. The pertinent statistic of this analysis is the *overall intersection level of service and delay*. Improvements to deficient intersections in Condition 3 were made by first attempting to adjust signal operations via changes in cycle lengths, splits and/or with acceptable adjustments to signal phasing. If that did not produce satisfactory results for all intersections, geometric improvements to improve intersection capacity were considered for the deficient intersections. **Appendix E** contains the Synchro signalized intersection output for all four conditions (where applicable).

Unsignalized intersections were analyzed using HCM methodologies. Their results were evaluated on a per-movement basis, since HCM methods do not produce an overall intersection level of service for unsignalized intersections. Thus, intersections with deficient (LOS F) movements in Condition 2 would need to be evaluated for improvements in Condition 3. This methodology differs from signalized intersections, where one or more movements at an intersection may be deficient in Condition 2, but as long as the overall intersection level of service does not fall below LOS D, no intersection improvements may be deemed necessary. **Appendix F** contains the Synchro 2010 HCM unsignalized output for all stop-controlled intersections under study.

ii.) 2017 Existing Conditions Results

Table 8 presents the results for the existing year traffic conditions as compiled from field data. The table lists LOS and delay values for those movements that are in existence at this time. Currently, all study area signalized intersections operate at acceptable levels of service for all of the analyzed 2017 peak hours. Several signalized intersection movements are over capacity in at least one peak hour during existing conditions. However, overall intersection delays and LOS are not significantly impacted by these movements, which may have relatively low traffic volumes or are for minor street movements that are not given as much signal green time compared to higher volume coordinated movements.



Table 8. Capacity Analysis Results for Study Area Intersections
Condition 1 – 2017 Existing Traffic

| Intersections/Movements | LOS | | | Average Vehicular Delay (seconds/vehicle) | | |
|---|-----------------|-----------------|-----------------|---|--------------------|--------------------|
| | AM | Noon | PM | AM | Noon | PM |
| Homestead Road and Seawell School Road | B | A | A | 13.8 | 5.5 | 9.4 |
| EB TH-RT | B | A | B | 17.4 | 8.7 | 14.1 |
| WB LT | A | A | A | 7.1 | 2.1 | 4.3 |
| WB TH | A | A | A | 2.5 | 1.8 | 4.4 |
| NB LT | C | B | B | 27.0 | 12.5 | 18.9 |
| NB RT | B | A | B | 19.3 | 8.3 | 12.6 |
| Homestead Road and Weaver Dairy Road Extension | A | A | B | 9.0 | 6.9 | 10.6 |
| EB LT | A | A | A | 4.1 | 2.1 | 2.9 |
| EB TH | A | A | A | 3.2 | 1.5 | 2.0 |
| WB TH-RT | C | B | B | 20.8 | 10.7 | 17.2 |
| SB LT | C | B | C | 24.7 | 13.8 | 23.6 |
| SB RT | A | B | B | 9.6 | 10.5 | 14.9 |
| Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard) | C | C | C | 25.7 | 25.9 | 27.0 |
| EB LT | <i>F</i> | <i>F</i> | <i>F</i> | <i>80.1</i> | <i>83.7</i> | <i>96.8</i> |
| EB LT-TH | <i>E</i> | <i>F</i> | <i>F</i> | <i>79.3</i> | <i>83.8</i> | <i>97.4</i> |
| EB RT | <i>D</i> | <i>E</i> | <i>E</i> | <i>51.9</i> | <i>61.5</i> | <i>63.3</i> |
| WB LT | <i>E</i> | <i>E</i> | <i>F</i> | <i>68.3</i> | <i>76.9</i> | <i>83.3</i> |
| WB LT-TH | <i>E</i> | <i>E</i> | <i>F</i> | <i>68.3</i> | <i>76.5</i> | <i>83.8</i> |
| WB RT | <i>D</i> | <i>E</i> | <i>E</i> | <i>47.0</i> | <i>57.0</i> | <i>58.6</i> |
| NB LT | <i>E</i> | <i>E</i> | <i>F</i> | <i>60.3</i> | <i>72.7</i> | <i>92.1</i> |
| NB TH-RT | A | A | B | 9.6 | 9.8 | 10.7 |
| SB LT | B | B | B | 14.8 | 11.4 | 12.8 |
| SB TH | B | B | B | 19.7 | 12.4 | 14.5 |
| SB RT | A | A | A | 6.1 | 5.5 | 5.3 |

N/A => Not Applicable, i.e. movement is non-existent or overall intersection values are not reported for unsignalized intersections
BOLD/ITALICS – Movement or overall intersection is over Town TIS Guidelines threshold capacity

iii.) 2020 No-Build Scenario (Condition 2) Results

Table 9 presents the results for the 2020 analysis year estimated traffic conditions without the impacts of site-related traffic. This analysis includes ambient growth, and data for the future background site developments.

During Condition 2 - 2020 Without Site Traffic, all study area intersections are expected to still operate at acceptable levels of service for all analyzed peak hours, though some areas in the project study area will experience relatively significant traffic growth, due to the construction of background traffic developments. No specific geometric improvements to study area intersections area were recommended (other than signal timing optimization) in previous Traffic Impact Studies for the background developments. There are no other committed background improvement projects in the project study area that are expected to be complete by 2020.



**Table 9. Capacity Analysis Results for Study Area Intersections
 Condition 2 – 2020 Traffic Without Site**

| Intersections/Movements | LOS | | | Average Vehicular Delay (seconds/vehicle) | | |
|---|-----------------|-----------------|-----------------|---|------|-------|
| | AM | Noon | PM | AM | Noon | PM |
| Homestead Road and Seawell School Road | B | A | B | 15.3 | 5.7 | 10.5 |
| EB TH-RT | B | A | B | 19.0 | 9.0 | 16.0 |
| WB LT | A | A | A | 8.8 | 2.1 | 5.1 |
| WB TH | A | A | A | 2.3 | 1.8 | 5.5 |
| NB LT | C | B | C | 30.2 | 13.1 | 21.0 |
| NB RT | C | B | B | 21.1 | 10.0 | 13.2 |
| Homestead Road and Weaver Dairy Road Extension | B | B | B | 11.0 | 10.7 | 15.0 |
| EB LT | A | A | A | 5.1 | 3.7 | 4.8 |
| EB TH | A | A | A | 4.2 | 3.2 | 3.4 |
| WB TH-RT | C | B | C | 24.9 | 16.4 | 24.8 |
| SB LT | C | C | C | 28.8 | 21.0 | 33.4 |
| SB RT | B | B | B | 10.1 | 10.5 | 16.4 |
| Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard) | C | C | C | 28.6 | 31.5 | 32.4 |
| EB LT | <i>E</i> | <i>F</i> | <i>F</i> | 79.8 | 85.0 | 96.7 |
| EB LT-TH | <i>E</i> | <i>F</i> | <i>F</i> | 78.3 | 85.9 | 96.9 |
| EB RT | <i>E</i> | <i>E</i> | <i>E</i> | 56.7 | 77.5 | 70.4 |
| WB LT | <i>E</i> | <i>E</i> | <i>F</i> | 68.3 | 76.9 | 83.3 |
| WB LT-TH | <i>E</i> | <i>E</i> | <i>F</i> | 68.3 | 76.5 | 83.8 |
| WB RT | D | <i>E</i> | <i>E</i> | 46.0 | 55.7 | 57.0 |
| NB LT | <i>E</i> | <i>E</i> | <i>F</i> | 62.1 | 78.4 | 112.1 |
| NB TH-RT | B | B | B | 10.9 | 12.1 | 13.1 |
| SB LT | B | B | B | 15.9 | 13.0 | 14.2 |
| SB TH | C | B | B | 22.4 | 14.5 | 16.8 |
| SB RT | A | A | A | 6.4 | 5.8 | 5.7 |

N/A => Not Applicable, i.e. movement is non-existent or overall intersection values are not reported for unsignalized intersections
BOLD/ITALICS – Movement or overall intersection is over Town TIS Guidelines threshold capacity

iv.) 2020 Build Scenario (Condition 3) Results

Table 10 presents results for 2020 Build-out+1 year estimated traffic conditions, including impacts of site-related traffic. In general, the addition of site-related traffic will marginally increase delays at intersections and is not expected to cause additional intersections or critical intersection stop-controlled movements to drop to deficient levels in the 2020 analysis year.



**Table 10. Capacity Analysis Results for Study Area Intersections
 Condition 3 – 2020 Traffic With Site**

| Intersections/Movements | LOS | | | Average Vehicular Delay (seconds/vehicle) | | |
|---|----------|----------|----------|--|------|-------|
| | AM | Noon | PM | AM | Noon | PM |
| Homestead Road and Seawell School Road | B | A | B | 15.4 | 5.7 | 10.6 |
| EB TH-RT | B | A | B | 19.1 | 9.0 | 16.0 |
| WB LT | A | A | A | 8.9 | 2.1 | 5.1 |
| WB TH | A | A | A | 2.3 | 1.8 | 5.5 |
| NB LT | C | B | C | 30.3 | 13.1 | 21.1 |
| NB RT | C | B | B | 21.2 | 10.1 | 13.4 |
| Homestead Road and Site Driveway | N/A | N/A | N/A | N/A | N/A | N/A |
| WB LT | A | A | A | 9.7 | 8.1 | 8.9 |
| NB LT-RT | C | B | C | 19.2 | 12.0 | 15.9 |
| Homestead Road and Weaver Dairy Road Extension | B | B | B | 11.1 | 10.9 | 15.5 |
| EB LT | A | A | A | 5.2 | 3.6 | 5.3 |
| EB TH | A | A | A | 4.2 | 3.2 | 3.4 |
| WB TH-RT | C | B | C | 25.1 | 16.7 | 25.2 |
| SB LT | C | C | C | 29.2 | 21.9 | 34.6 |
| SB RT | B | B | B | 10.4 | 11.1 | 17.3 |
| Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard) | C | C | C | 29.3 | 32.9 | 33.8 |
| EB LT | <i>E</i> | <i>F</i> | <i>F</i> | 78.9 | 85.4 | 96.1 |
| EB LT-TH | <i>E</i> | <i>F</i> | <i>F</i> | 79.8 | 85.9 | 96.8 |
| EB RT | <i>E</i> | <i>F</i> | <i>E</i> | 59.1 | 83.1 | 72.3 |
| WB LT | <i>E</i> | <i>E</i> | <i>F</i> | 68.3 | 76.9 | 83.3 |
| WB LT-TH | <i>E</i> | <i>E</i> | <i>F</i> | 68.3 | 76.5 | 83.8 |
| WB RT | D | <i>E</i> | <i>E</i> | 45.8 | 55.5 | 56.8 |
| NB LT | <i>E</i> | <i>E</i> | <i>F</i> | 62.4 | 79.9 | 119.7 |
| NB TH-RT | B | B | B | 11.0 | 12.2 | 13.3 |
| SB LT | B | B | B | 16.1 | 13.2 | 14.4 |
| SB TH | C | B | B | 22.6 | 14.6 | 17.0 |
| SB RT | A | A | A | 6.4 | 5.8 | 5.7 |

N/A => Not Applicable, i.e. movement is non-existent or overall intersection values are not reported for unsignalized intersections
BOLD/ITALICS – Movement or overall intersection is over Town TIS Guidelines threshold capacity

v.) 2020 Build + Mitigation Scenario (Condition 4) Results

Table 11 presents results for 2020 Build-out+1 year estimated traffic conditions, including impacts of site-related traffic and safety-related recommended mitigation improvements at the intersection of Homestead Road and the Site Driveway. The proposed change to this intersection would be the development of a westbound left-turn lane along Homestead Road for site traffic ingress.



**Table 11. Capacity Analysis Results for Study Area Intersections
 Condition 4 – 2020 Traffic With Site & Mitigation**

| Intersections/Movements | LOS | | | Average Vehicular Delay (seconds/vehicle) | | |
|---|-----|------|-----|---|------|------|
| | AM | Noon | PM | AM | Noon | PM |
| Homestead Road and Site Driveway | N/A | N/A | N/A | N/A | N/A | N/A |
| WB LT | A | A | A | 9.7 | 8.1 | 8.9 |
| NB LT-RT | C | B | C | 19.2 | 12.0 | 15.8 |

N/A => Not Applicable, i.e. movement is non-existent or overall intersection values are not reported for unsignalized intersections

B. Access Analysis

Vehicular site access is to be accommodated at a proposed full movement access driveway connecting to Homestead Road about 325 feet to the west of its signalized intersection with the Weaver Dairy Road Extension. The driveway has a single inbound lane and outbound lanes. A second driveway access connection is also proposed in the rear of the property to connect to an internal roadway from the Courtyards at Homestead development.

The driveway connection to Homestead Road would have a throat length of approximately 400 feet prior to internal parking lot connections and is acceptable, based on 50 foot minimum throat length standards found on Page 69 of the 2017 *Town of Chapel Hill Public Works Design Manual*. Two internal driveway connections to the main site driveway are proposed, with a separation of approximately 475 feet.

Driveway distances along Homestead Road from the signalized intersection at the Weaver Dairy Road Extension is approximately 325 feet as noted above, and is acceptable, based on recommendations of 100 foot minimum corner clearance as set forth in the 2003 *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and the 100 foot minimum along collector streets specified in the Town Design Manual. The distance between the proposed driveway connection and the Courtyards at Homestead site access driveway is approximately 450 feet and would also be acceptable, based on the recommended 50 foot spacing along collector roadways found in Table 3.2 – Street Standards in the Town Design Manual.

Access for pedestrians is adequate in the project study area. Sidewalk is present on the south sides of Homestead Road east of the site and is planned along the site frontage on the south side of Homestead Road connecting to sidewalk along the Courtyards of Homestead development. Sidewalk connectivity is not present along Homestead Road on the north side of the road and further to the west of the site. Crosswalk exists across the NC 86 and Weaver Dairy Extension intersections with Homestead Road signalized intersections and across Homestead Road at Northern Park Drive to the east of the Overture Senior Residences site. No specific bicycle amenities are present along Homestead Road, but bicycle lanes are present on one side of Seawell School Road and the Weaver Dairy Road Extension and along NC 86 north of Homestead Road. The site is adjacent to the Horace Williams Greenway and is proposing an unpaved pedestrian/bicycle path at the rear of the site.

C. Signal Warrant Analysis

Based on projected 2020 traffic volumes and proposed access plans, the unsignalized Site Driveway intersection with Homestead Road would not warrant the installation of a traffic signal, based on the methodology found in the 2009 *Manual on Uniform Traffic Control Devices (MUTCD)*.



D. Sight Distance Analysis

In general, sight distance issues entering/exiting the existing Overture Senior Residences driveway would be minimal, considering the fact that Homestead Road has no horizontal curvature in the vicinity of this existing access location and vertical curvature at this location is minimal, giving entering and exiting traffic adequate sight distance in both directions.

E. Crash Analysis

Data from the NCDOT Traffic Safety Unit TEAAS crash software database was extracted for the five year period from 9/1/2012 to 8/31/2017 for the segment of Homestead Road from Seawell School Road to NC 86 (Martin Luther King, Jr. Boulevard). Raw crash data can be found in **Appendix G**.

Homestead Road Corridor

There were 29 crashes reported along the Homestead Road study area corridor between Seawell School Road and NC 86 over the five year period. In this 1.0 mile segment, crash types were primarily rear end crashes, with several other crash types occurring. 13 of the 29 crashes were rear-end type crashes. No other crash type had more than two crashes. There was one fatality reported for a crash involving a pedestrian crossing Homestead Road near the Seymour Senior Center. Spatial distribution of crashes along the corridor from the segment strip map indicates that a considerable number of crashes (14) occurred in the vicinity of the NC 86 (Martin Luther King, Jr. Blvd) intersection. The remaining crashes were distributed relatively evenly along the rest of the segment, with three crashes occurring in the vicinity of the Weaver Dairy Road Extension intersection and four crashes near Seawell School Road.

Table 12 presents a comparison between the Homestead Road study area crash rates and the latest North Carolina statewide rates for the period 2013-2015 (compiled by NCDOT Traffic Safety Unit). Overall, the crash rates along Homestead Road in the project study area are lower than statewide averages for similar facilities (two-lane undivided and two-lane undivided with continuous center turn lane) in every reported category, except for fatal crashes.

Table 12. Study Area Crash Rate Comparison – Homestead Road Corridor

| Statistic | Crashes Per 100 Million Vehicle Miles | | |
|-------------------------------|---|-----------------------|---------------------------------------|
| | Homestead Road | NC Statewide Average* | NC Statewide Average* |
| | Seawell School Rd to NC 86 (MLK Jr. Blvd) | 2-Lane Undivided | 2-Lane with Continuous Left-Turn Lane |
| Total Crash Rate | 196.07 | 247.39 | 324.59 |
| Fatal Crash Rate | 6.76 | 1.18 | 1.66 |
| Non-Fatal (Injury) Crash Rate | 67.61 | 76.16 | 99.33 |
| Night Crash Rate | 33.81 | 65.51 | 74.81 |
| Wet Crash Rate | 13.52 | 46.04 | 60.40 |

* - Data for Urban Secondary Routes



F. Other Transportation-Related Analyses

Other transportation-related analyses relevant to the 2001 Town of Chapel Hill Guidelines for the preparation of Traffic Impact Studies were completed as appropriate. The following topics listed in **Table 13** are germane to the scope of this study.

Table 13. Other Transportation-Related Analyses

| Analysis | Comment |
|--|--|
| Turn Lane Storage Requirements | Storage bay lengths at study area intersections were analyzed using Synchro and HCS 95 th percentile (max) queue length estimates for the 2020 Build Scenario. No recommendations for improvements to storage bays are expected, based on the analysis results. At the intersection of Homestead Road and NC 86 (Martin Luther King, Jr. Blvd), projected 95 th percentile queue lengths may exceed the northbound and eastbound existing delineated storage bay lengths if existing signal timings are not adjusted to reflect expected increases in traffic volumes related to those movements. |
| Appropriateness of Acceleration/Deceleration Lanes | The site concept plan shows no specifics related to acceleration/deceleration lanes. It is recommended that a westbound left-turn lane be constructed along Homestead Road at the proposed site driveway to remove turning traffic movements from the westbound through traffic flow along Homestead Road. No other specific acceleration/deceleration lane issues were analyzed in the project study area. |
| Pedestrian and Bicycle Analysis | Existing pedestrian access and connectivity is adequate along the Homestead Road corridor adjacent to the site, though some gaps exist on both sides of the road in certain areas. Sidewalk exists along thoroughfares connecting to Homestead Road on at least one side of the road. Bicycle lanes extend along NC 86 north of Homestead Road and along the Weaver Dairy Road Extension and Seawell School Road, but no bicycle facilities exist along Homestead Road within the project study area. The site plan shows a sidewalk across the Homestead Road frontage, allowing a direct connection to the Horace Williams Greenway, along with an unpaved path at the rear of the site. |
| Public Transportation Analysis | Public transportation service to the study area, and to the proposed site is adequate, with bus stops and multiple local and regional bus routes on both NC 86 and Homestead Road proximate to the site. |

G. Special Analysis/Issues Related to Project

Based on discussions with Town of Chapel Hill staff, there are no special issues or analyses beyond the ones already discussed for this proposed site.



IV. MITIGATION MEASURES / RECOMMENDATIONS

A. Planned Improvements

There are no Town of Chapel Hill or North Carolina Department of Transportation improvement projects for study area roadway facilities within the analysis year time frame of 2017-2020.

B. Background Committed Improvements

There are no specific geometric improvements to the study area roadway intersections related to background private development projects that are expected to be completed between 2017 and 2020. Several traffic impact studies for development projects in and near the study area recommended signal timing reoptimization for signalized intersections along the NC 86 (Martin Luther King, Jr. Blvd) corridor by their respective build-out years. It is assumed that signal timing reoptimization will occur for the NC 86 corridor by the year 2020, whether or not specifically needed by any of the proposed background traffic generating developments included in this study.

C. Applicant Committed Improvements

Based on the preliminary site plans and supporting development information provided, there are no specific transportation-related improvements proposed external to the Overture Senior Residences site. There are several internal improvements including the following:

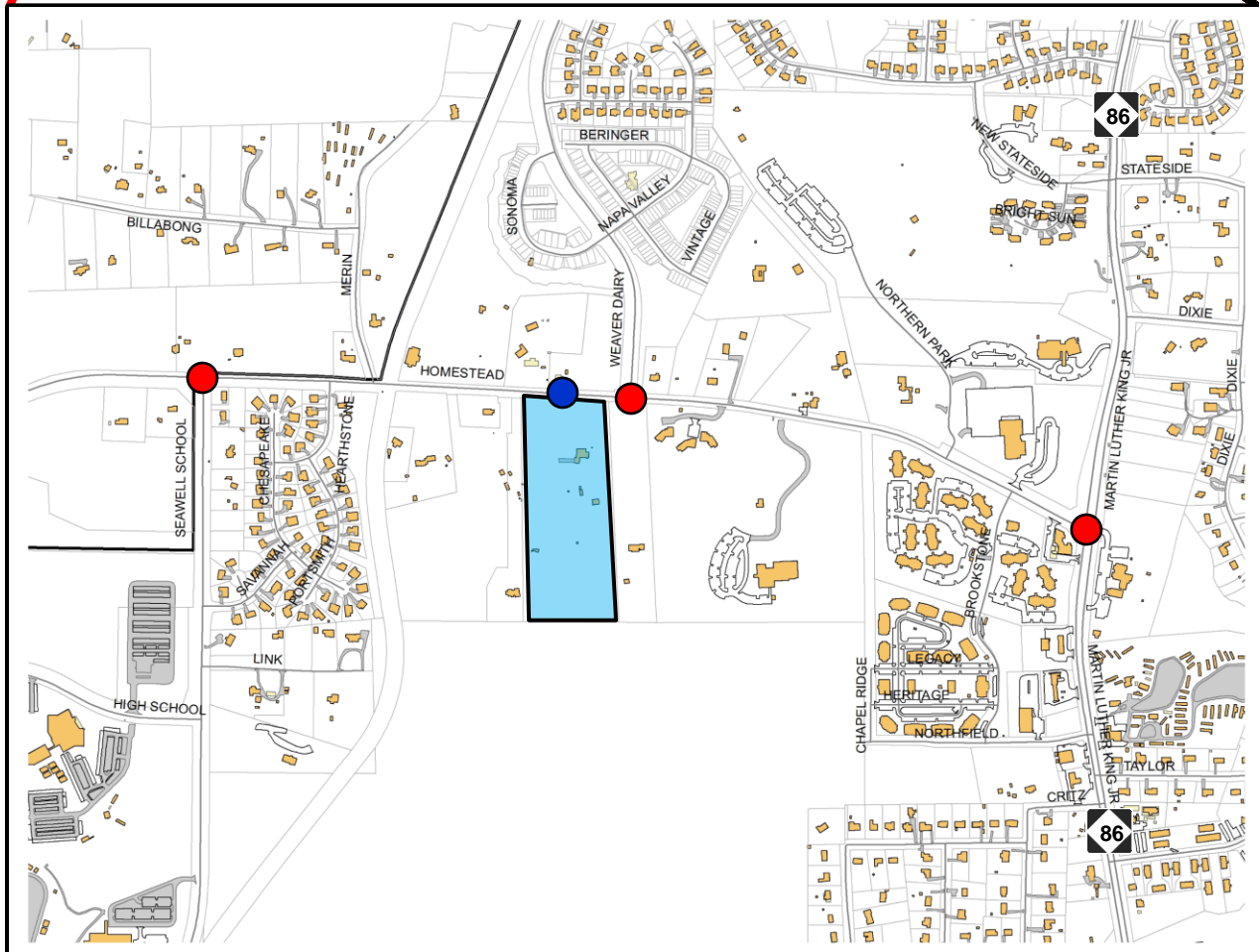
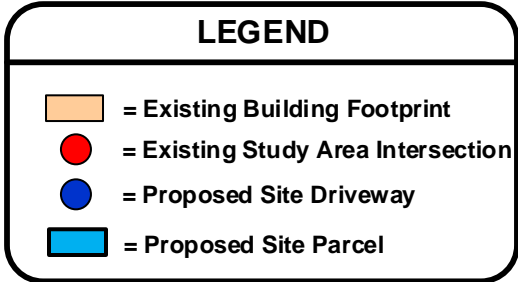
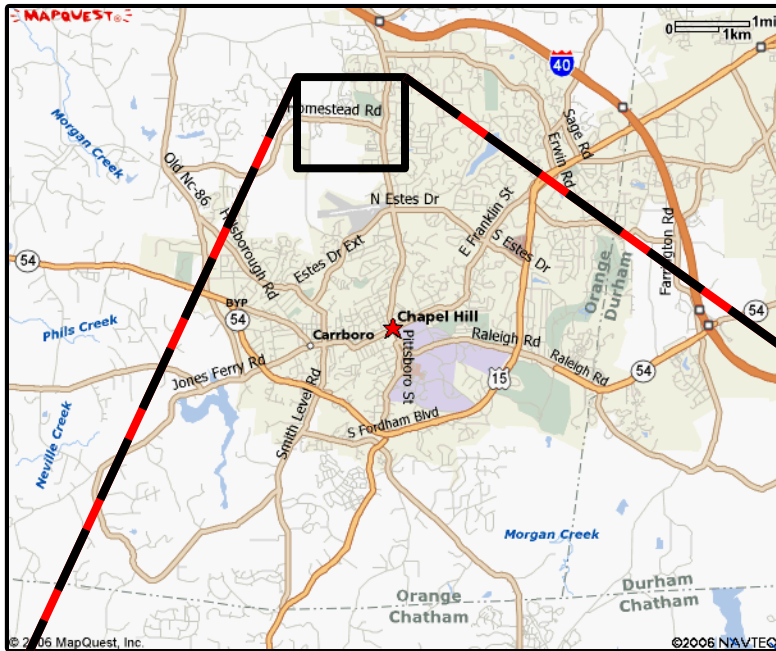
- Provision of cross-access connection to adjacent Courtyards at Homestead development.
- Construction of continuous sidewalk along south side of Homestead Road across site frontage.
- Construction of an unpaved pedestrian path at rear of site to connect to trail system within Carolina North.

D. Necessary Improvements

Based on traffic capacity analyses for the 2020 design year, and analyses of existing study area turning bay storage lengths and site access, the following improvements are recommended as being necessary for adequate transportation network operations (see **Figure 14**).

- 1) Retime the NC 86 (Martin Luther King, Jr. Blvd) and Homestead Road intersection to optimize overall capacity given the existing intersection geometrics and progression along NC 86. Also, retime the signal to potentially reduce projected vehicle queues on the eastbound Homestead Road approach and northbound NC 86 left-turn lanes that may exceed existing storage capacity. This improvement is recommended whether or not if the Overture Senior Residences site is developed.
- 2) Widen Homestead Road along the length of site frontage to provide a consistent three-lane cross-section with an exclusive westbound left-turn lane into the site with 100 feet of vehicular storage. This also may allow the extension of the existing eastbound left-turn lane at the Weaver Dairy Road Extension for additional storage (125 feet total or more depending on taper design). This improvement is recommended due to the Overture Senior Residences development.

Appendix A – Figures



Source: Town of Chapel Hill GIS Files

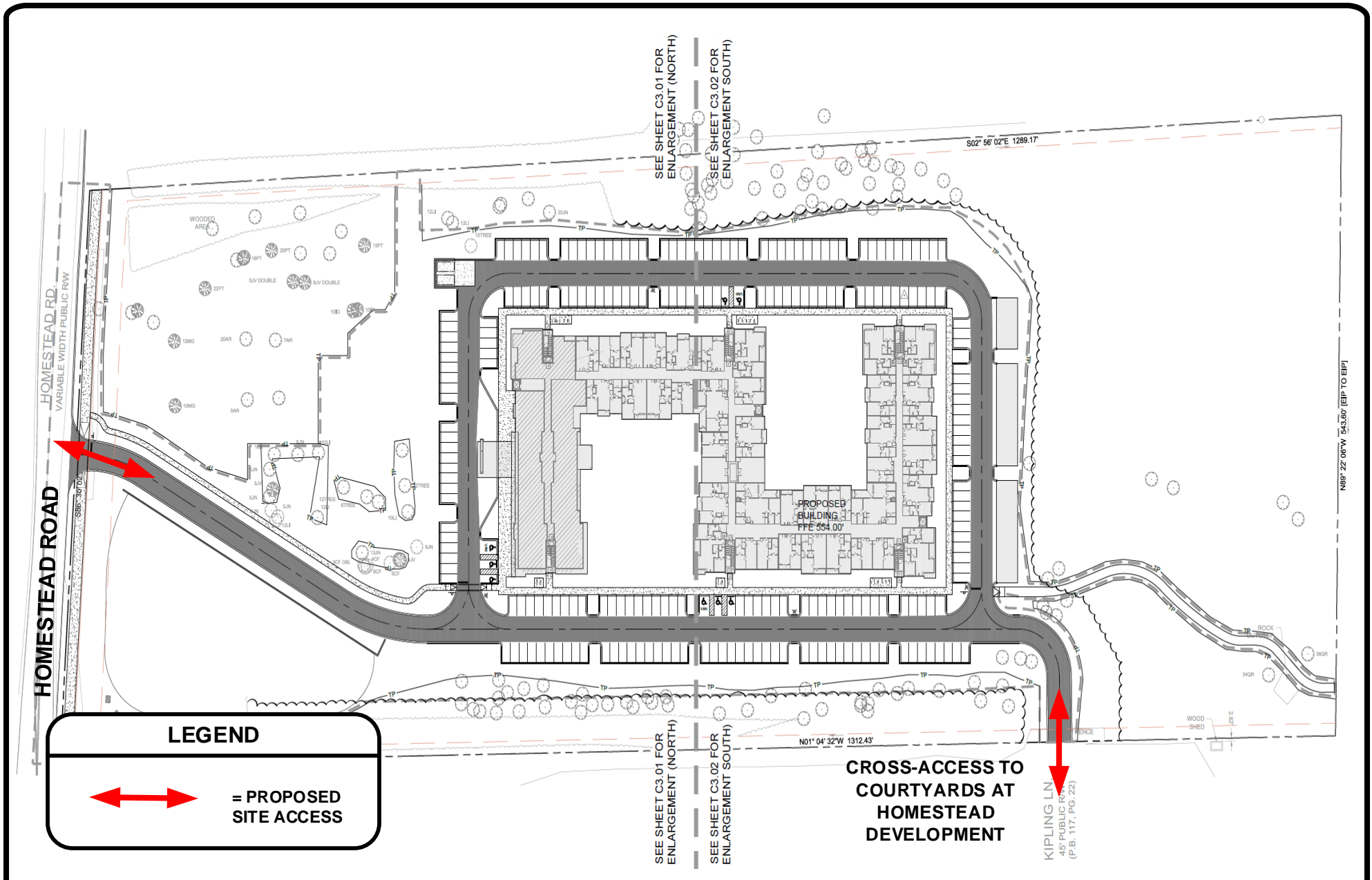


**Overture Senior Residences
Traffic Impact Study**


DATE: December 2017

PROJECT STUDY AREA


FIGURE 1



LEGEND

 = PROPOSED SITE ACCESS




NOT TO SCALE

**Overture Senior Residences
Traffic Impact Study**

PRELIMINARY SITE PLAN

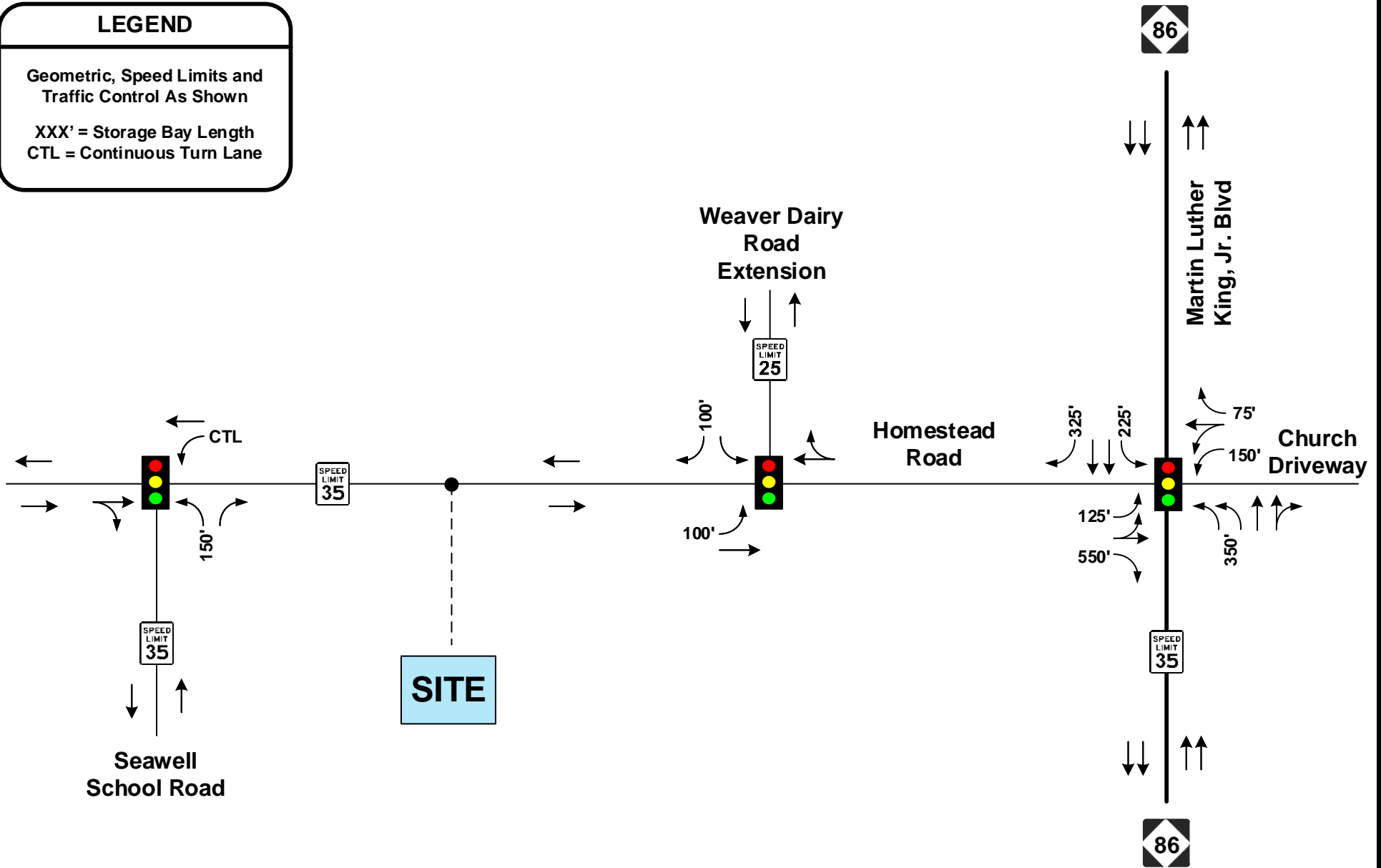
DATE: December 2017

FIGURE 2

LEGEND

Geometric, Speed Limits and Traffic Control As Shown

XXX' = Storage Bay Length
CTL = Continuous Turn Lane



NOT TO SCALE

**Overture Senior Residences
Traffic Impact Study**

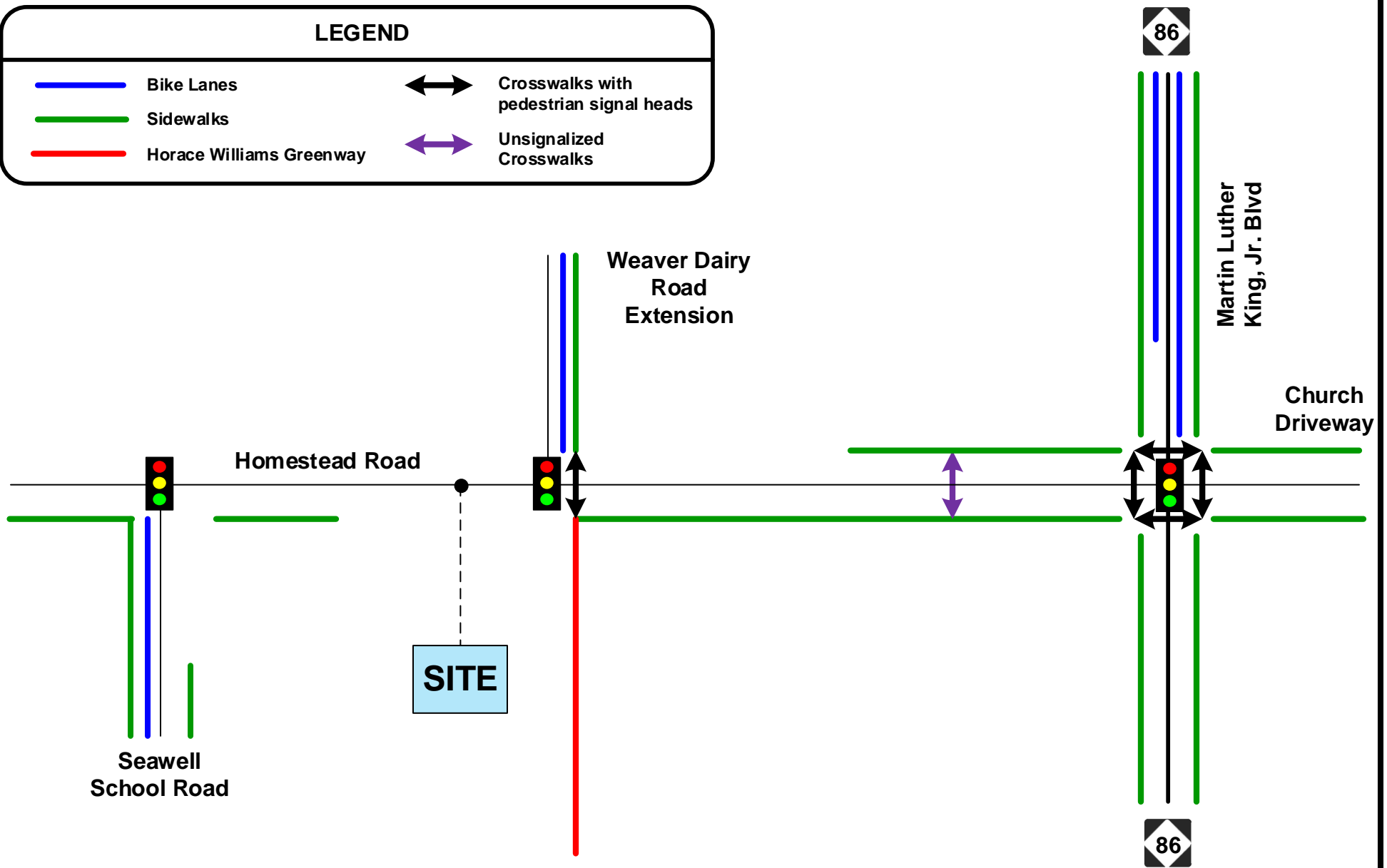
EXISTING LANEAGE AND GEOMETRICS

DATE: December 2017

FIGURE 3

LEGEND

-  Bike Lanes
-  Sidewalks
-  Horace Williams Greenway
-  Crosswalks with pedestrian signal heads
-  Unsignalized Crosswalks



HNTB



NOT TO
SCALE

**Overture Senior Residences
Traffic Impact Study**

STUDY AREA PEDESTRIAN AND BICYCLE FACILITIES

DATE: December 2017

FIGURE 4

LEGEND



= BUS STOP

= **NS** ROUTE

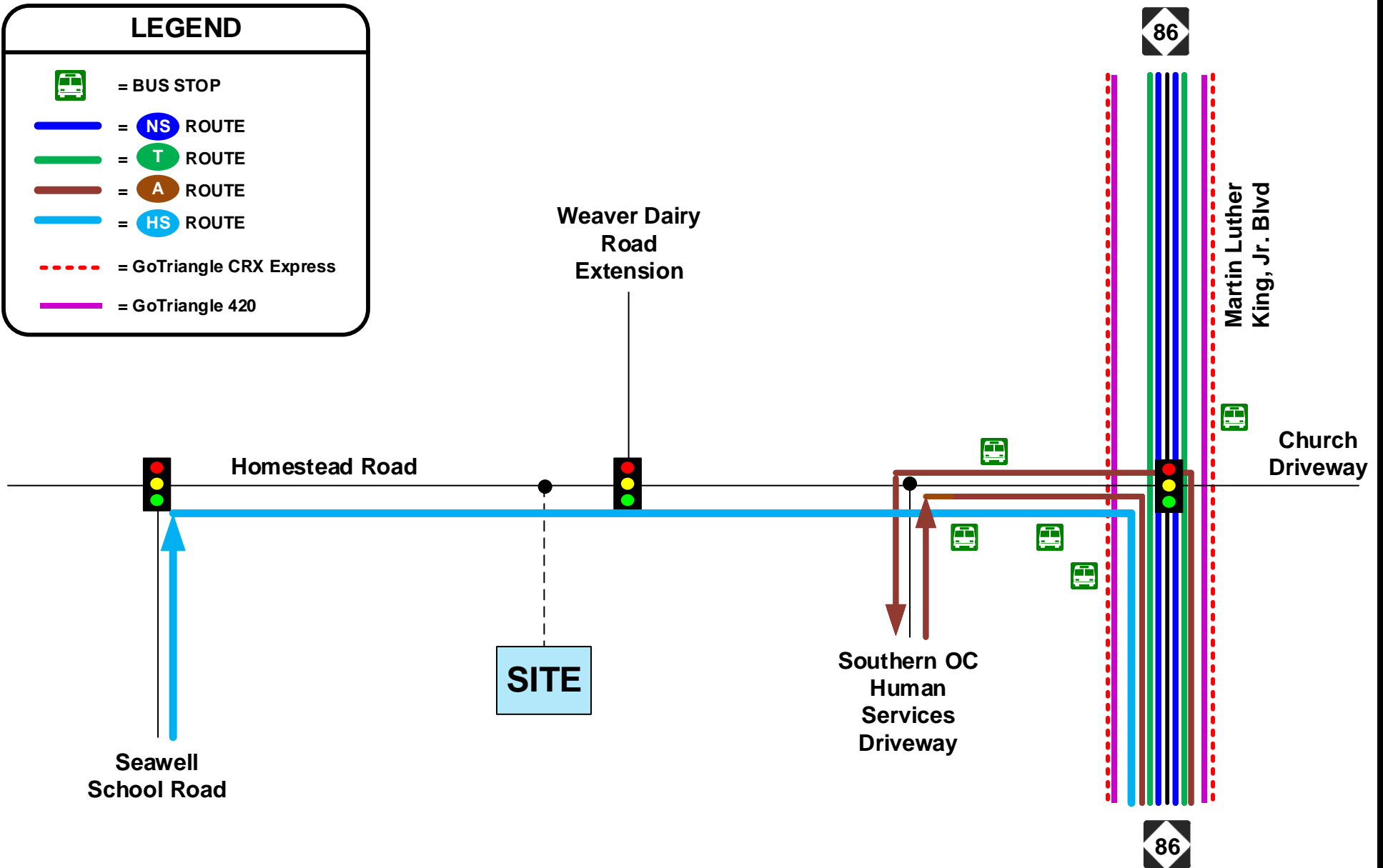
= **T** ROUTE

= **A** ROUTE

= **HS** ROUTE

= GoTriangle CRX Express

= GoTriangle 420



HNTB



NOT TO
SCALE

**Overture Senior Residences
Traffic Impact Study**

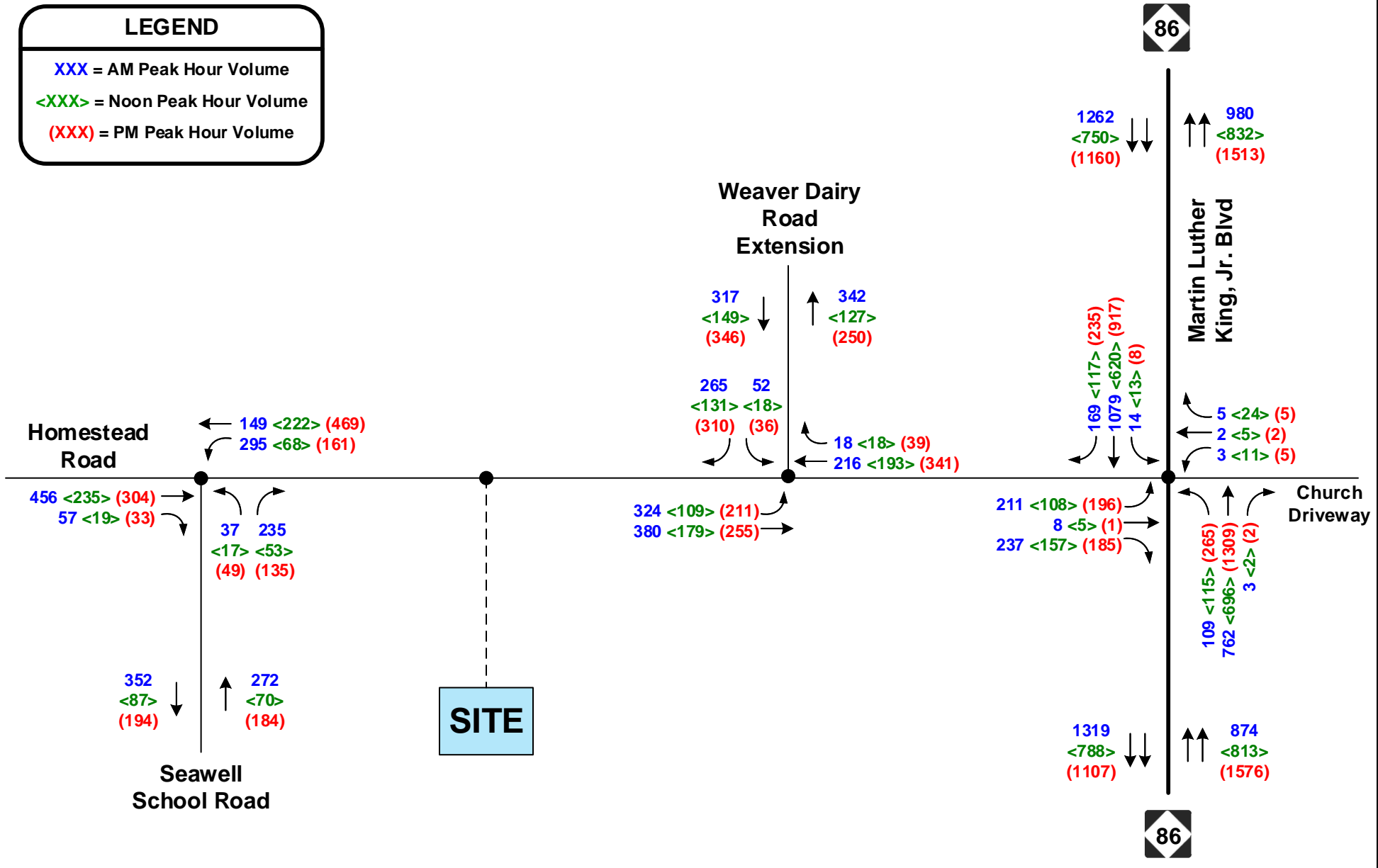
STUDY AREA TRANSIT ROUTES

DATE: December 2017

FIGURE 5

LEGEND

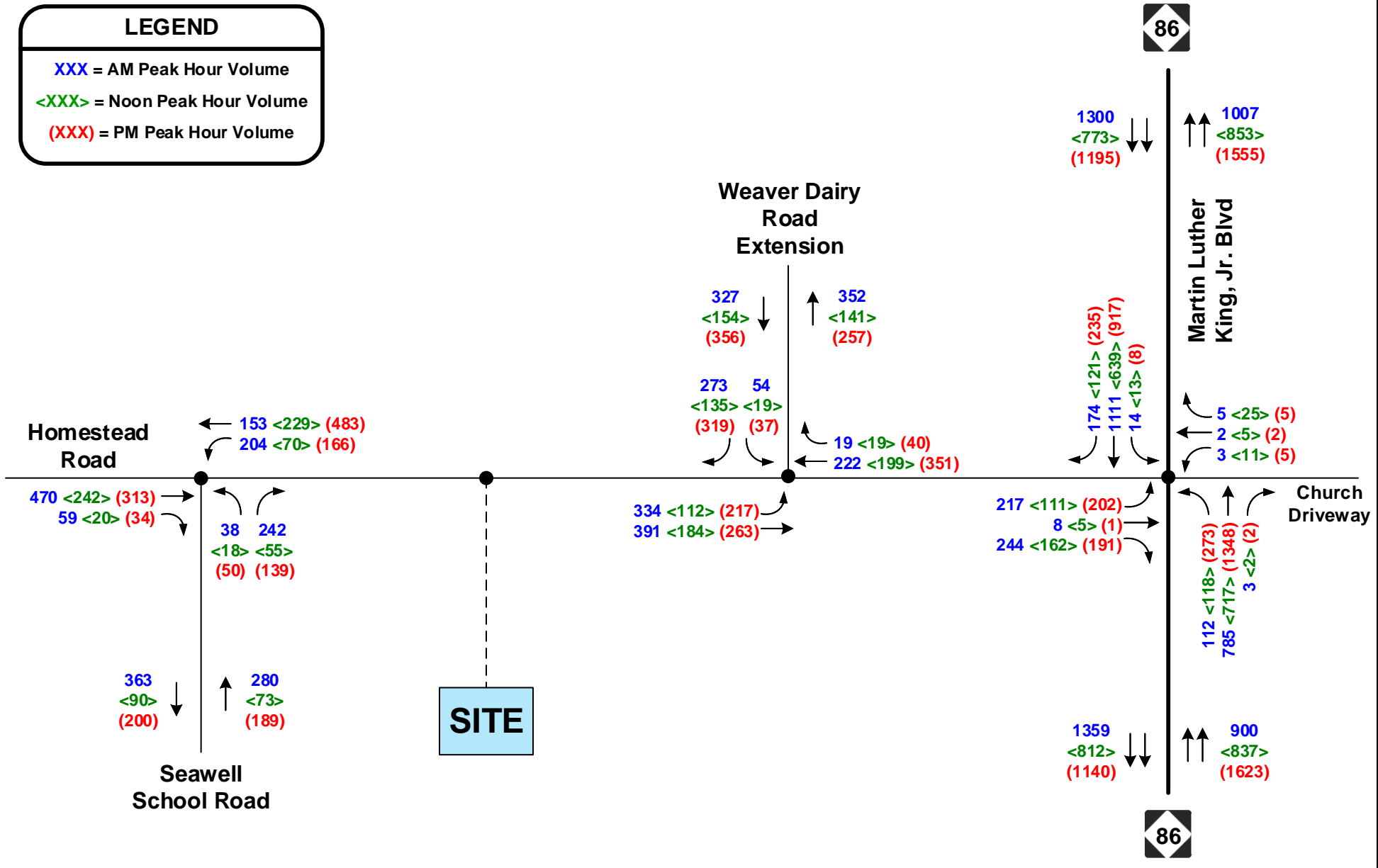
- XXX = AM Peak Hour Volume
- <XXX> = Noon Peak Hour Volume
- (XXX) = PM Peak Hour Volume



SITE

LEGEND

- XXX = AM Peak Hour Volume
- <XXX> = Noon Peak Hour Volume
- (XXX) = PM Peak Hour Volume



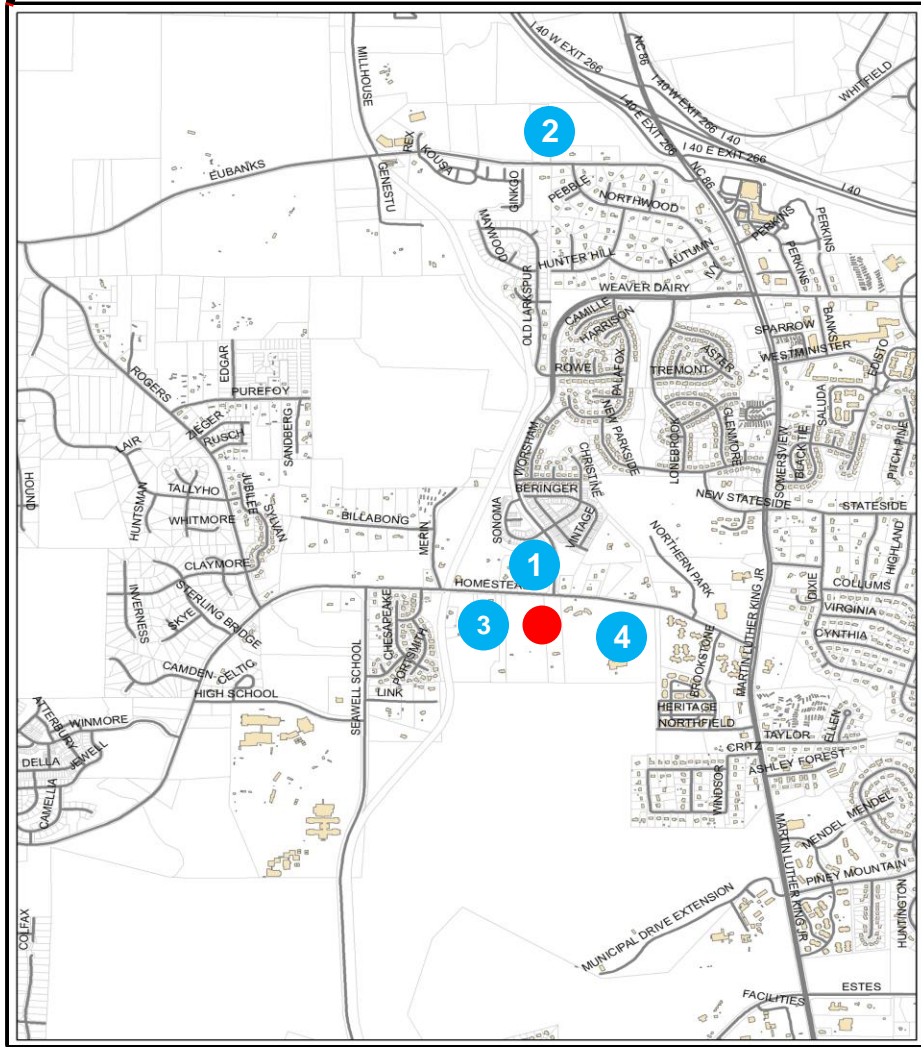
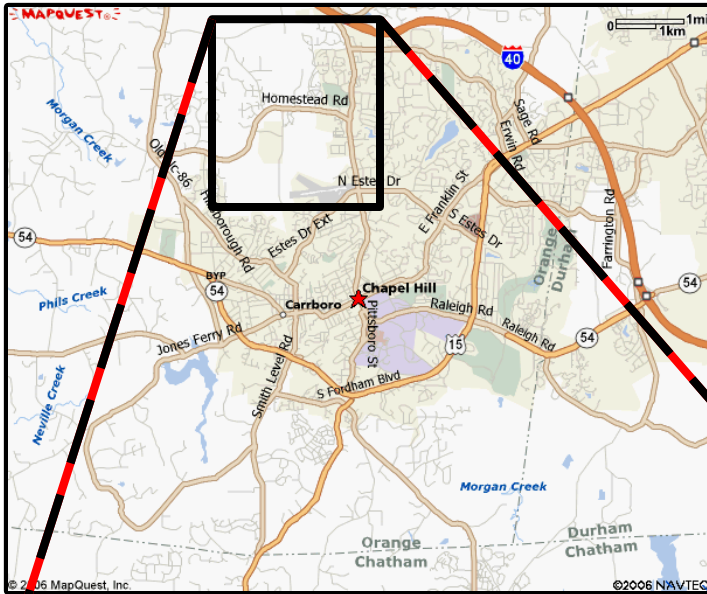
NOT TO SCALE

**Overture Senior Residences
Traffic Impact Study**

2020 AMBIENT GROWTH PEAK HOUR TRAFFIC VOLUMES

DATE: December 2017

FIGURE 7



LEGEND

- 1 Bridge Point
- 2 The Edge (2013 Update)
- 3 Courtyards of Homestead
- 4 Southern Orange Government Services Complex
- Overture Senior Residences Site



**Overture Senior Residences
Traffic Impact Study**

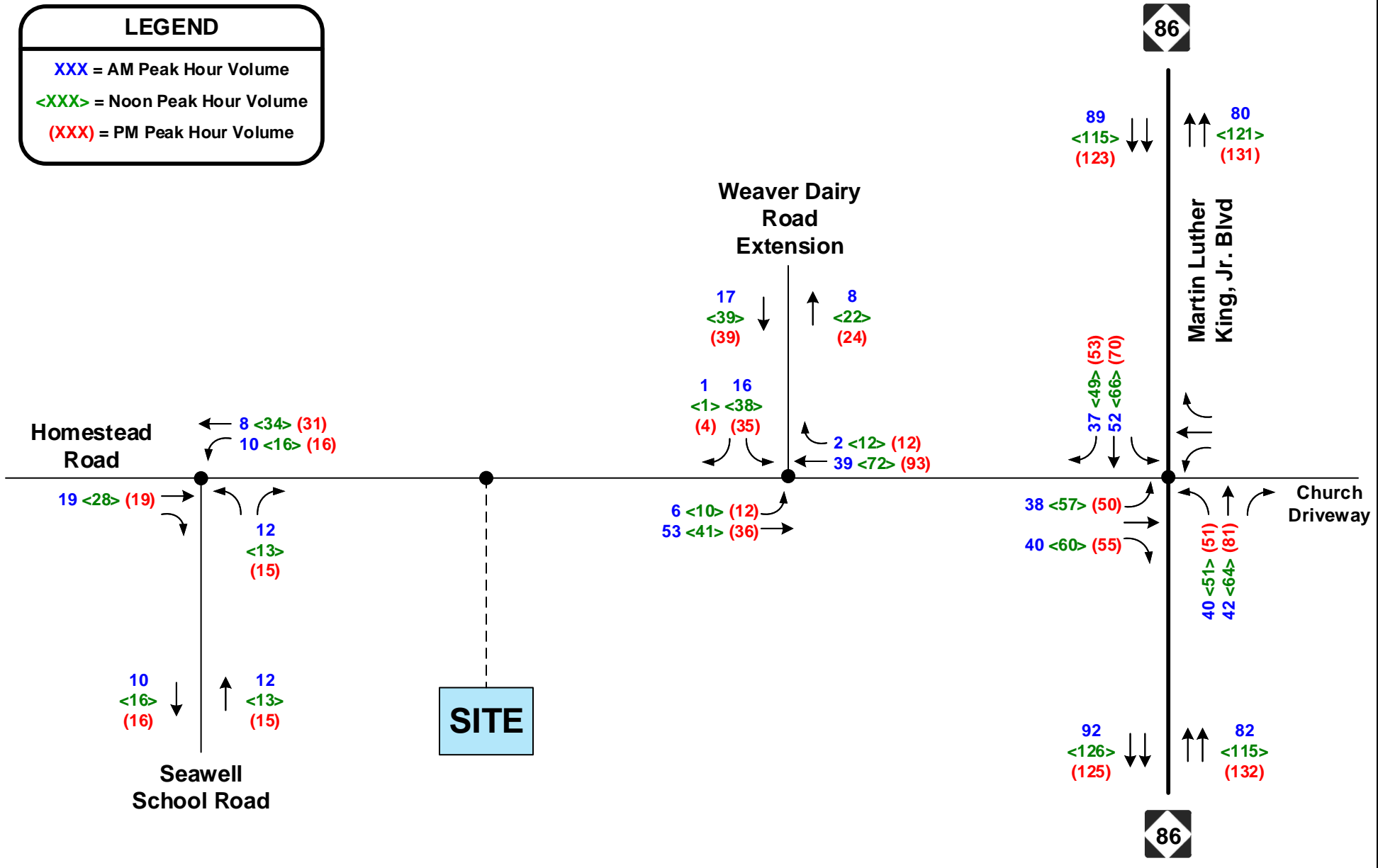
DATE: December 2017

BACKGROUND DEVELOPMENT LOCATIONS

FIGURE 8

LEGEND

- XXX = AM Peak Hour Volume
- <XXX> = Noon Peak Hour Volume
- (XXX) = PM Peak Hour Volume



HNTB



NOT TO SCALE

**Overture Senior Residences
Traffic Impact Study**

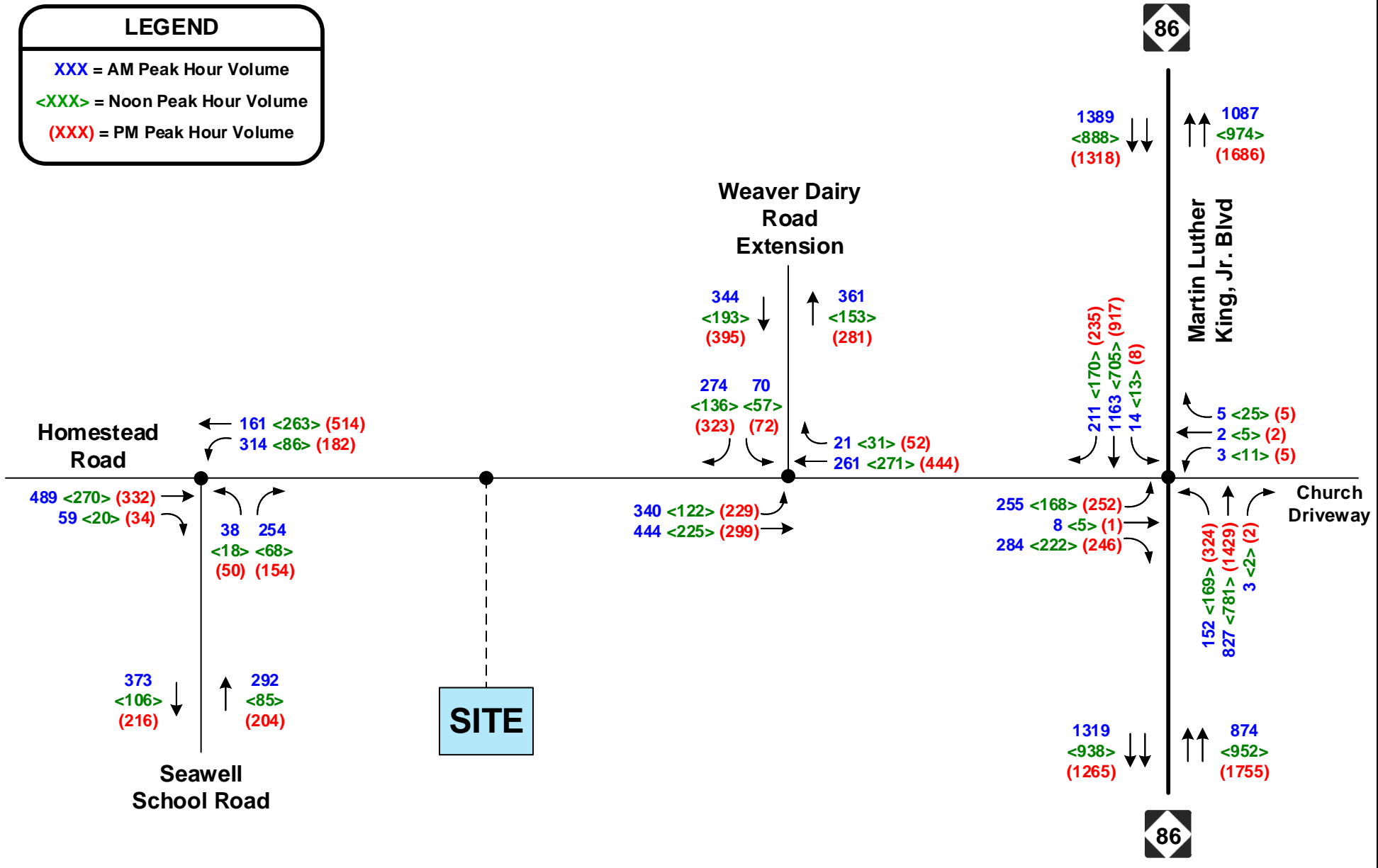
**2020 TOTAL BACKGROUND GENERATOR
PEAK HOUR TRAFFIC VOLUMES**

DATE: December 2017

FIGURE 9

LEGEND

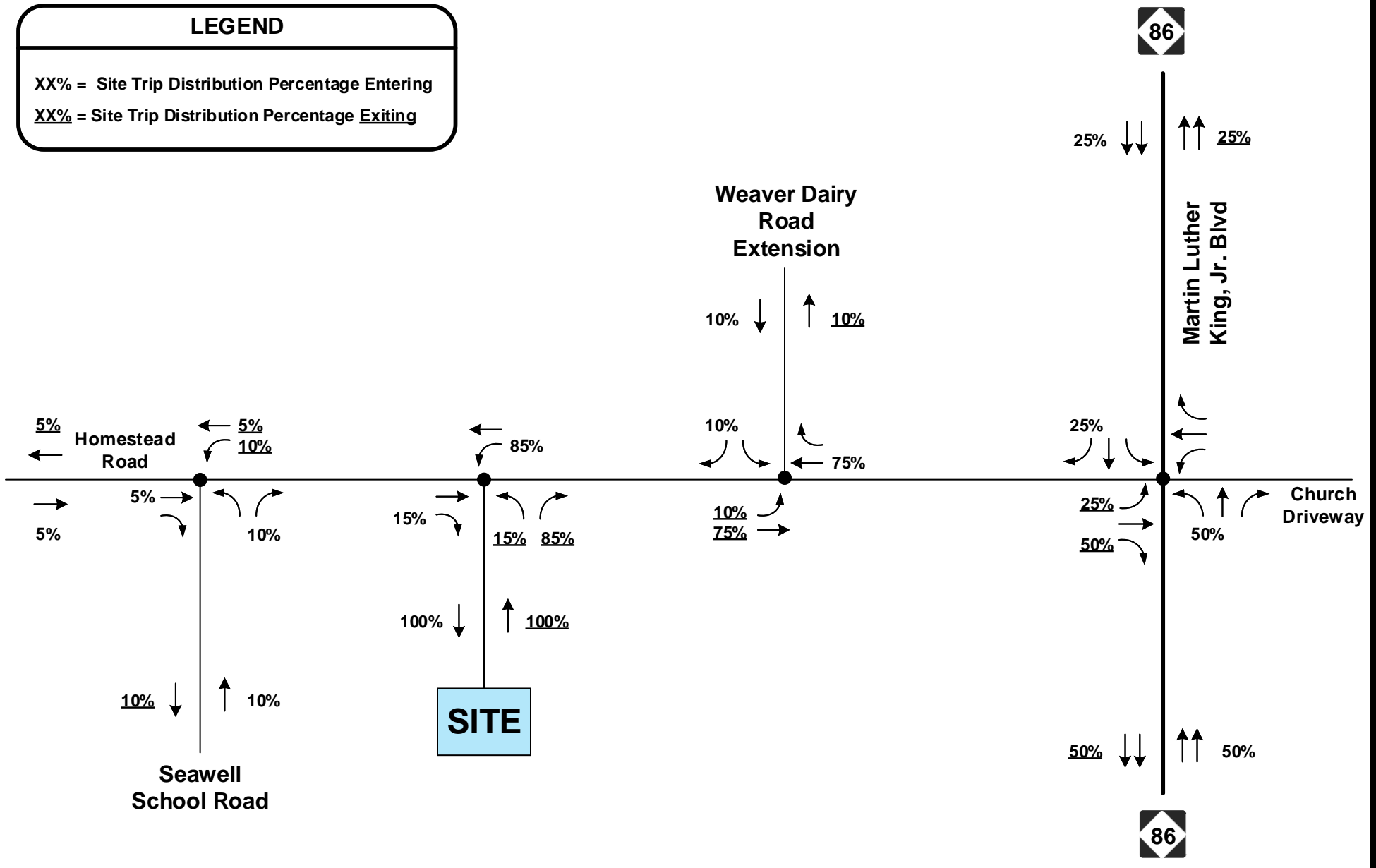
- XXX = AM Peak Hour Volume
- <XXX> = Noon Peak Hour Volume
- (XXX) = PM Peak Hour Volume



SITE

LEGEND

XX% = Site Trip Distribution Percentage Entering
 XX% = Site Trip Distribution Percentage Exiting



NOT TO SCALE

**Overture Senior Residences
 Traffic Impact Study**

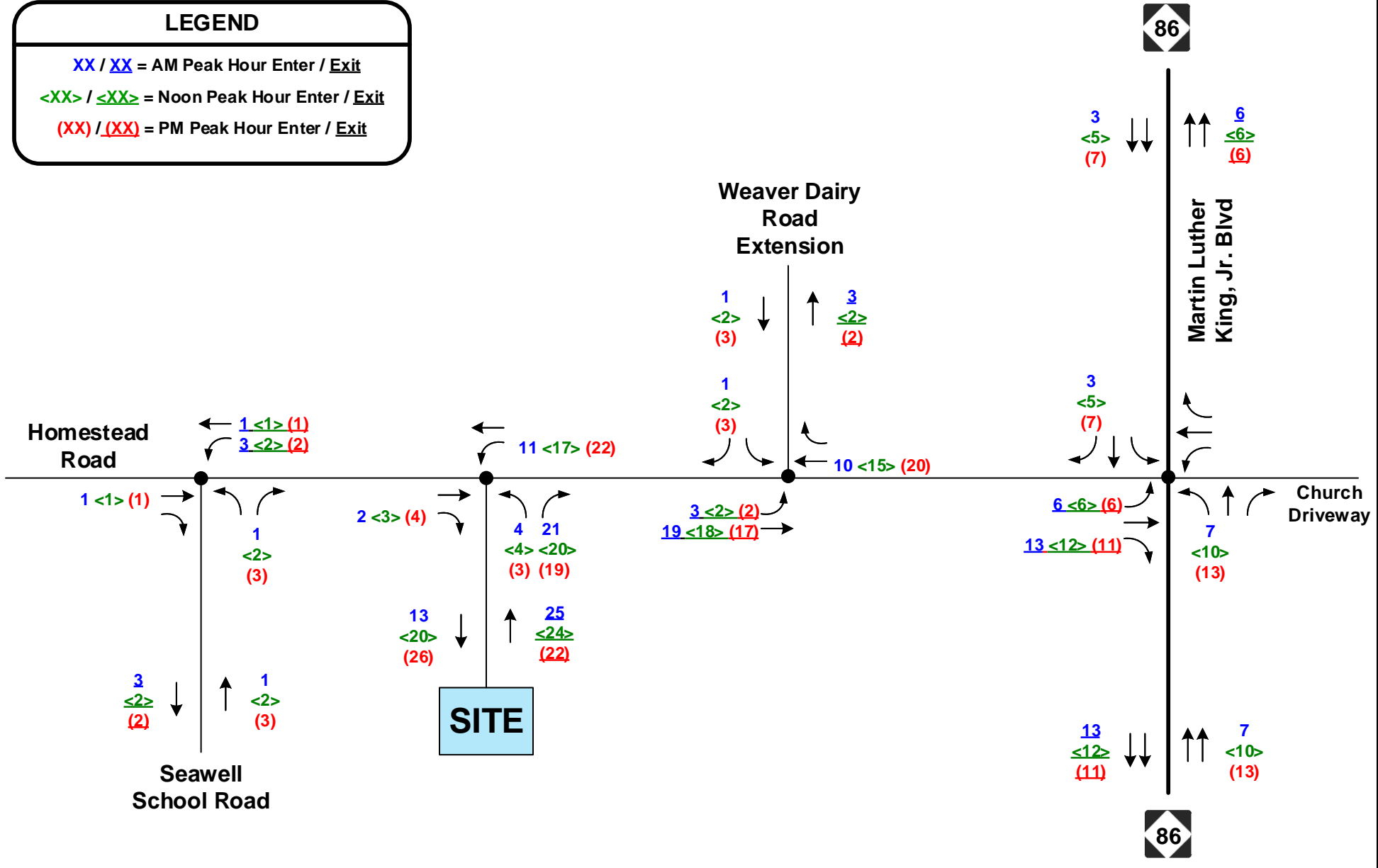
DATE: December 2017

2020 SITE TRIP DISTRIBUTION PERCENTAGES

FIGURE 11

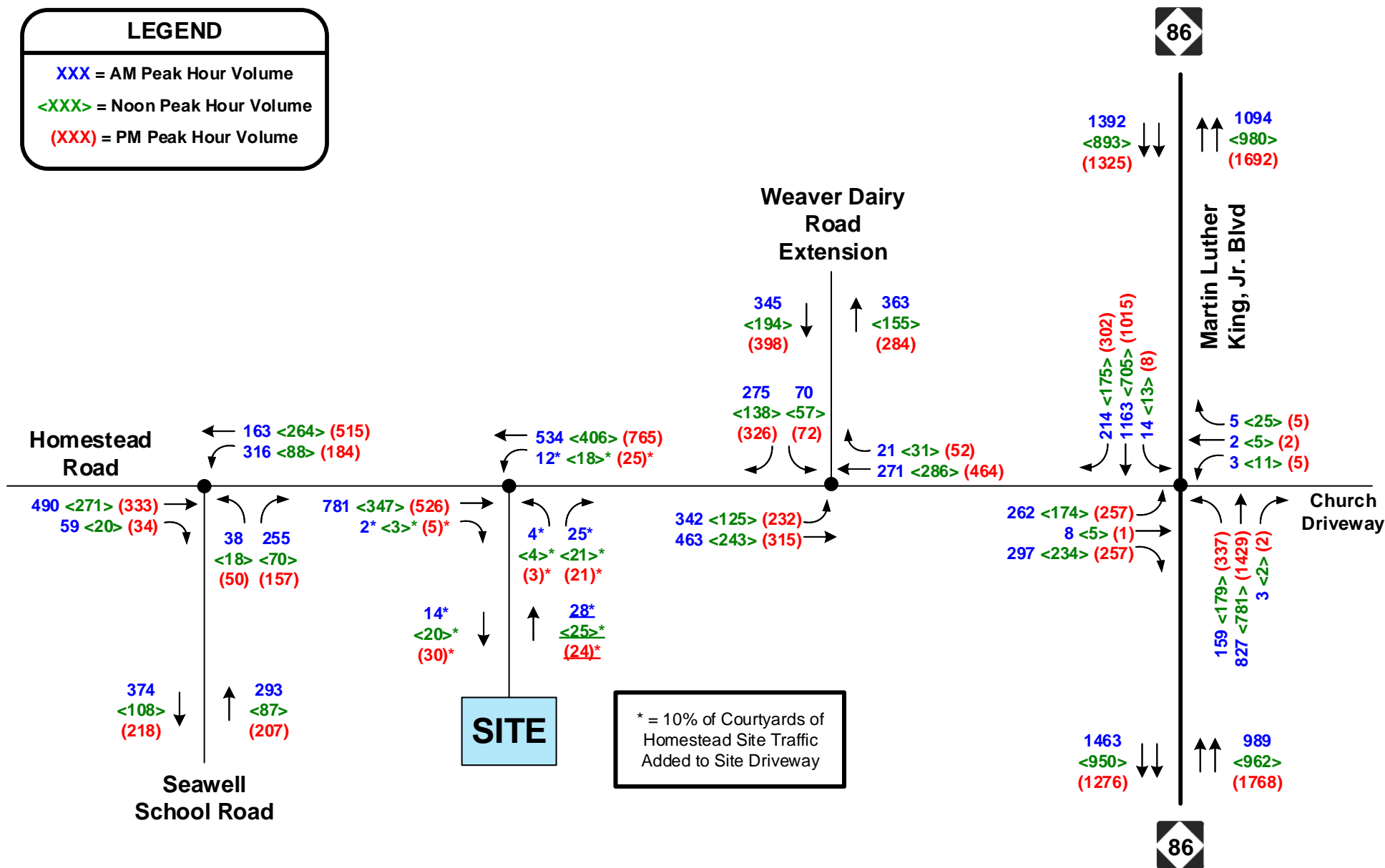
LEGEND

- XX / XX = AM Peak Hour Enter / Exit
- <XX> / <XX> = Noon Peak Hour Enter / Exit
- (XX) / (XX) = PM Peak Hour Enter / Exit



LEGEND

XXX = AM Peak Hour Volume
<XXX> = Noon Peak Hour Volume
(XXX) = PM Peak Hour Volume



NOT TO SCALE



Overture Senior Residences Traffic Impact Study

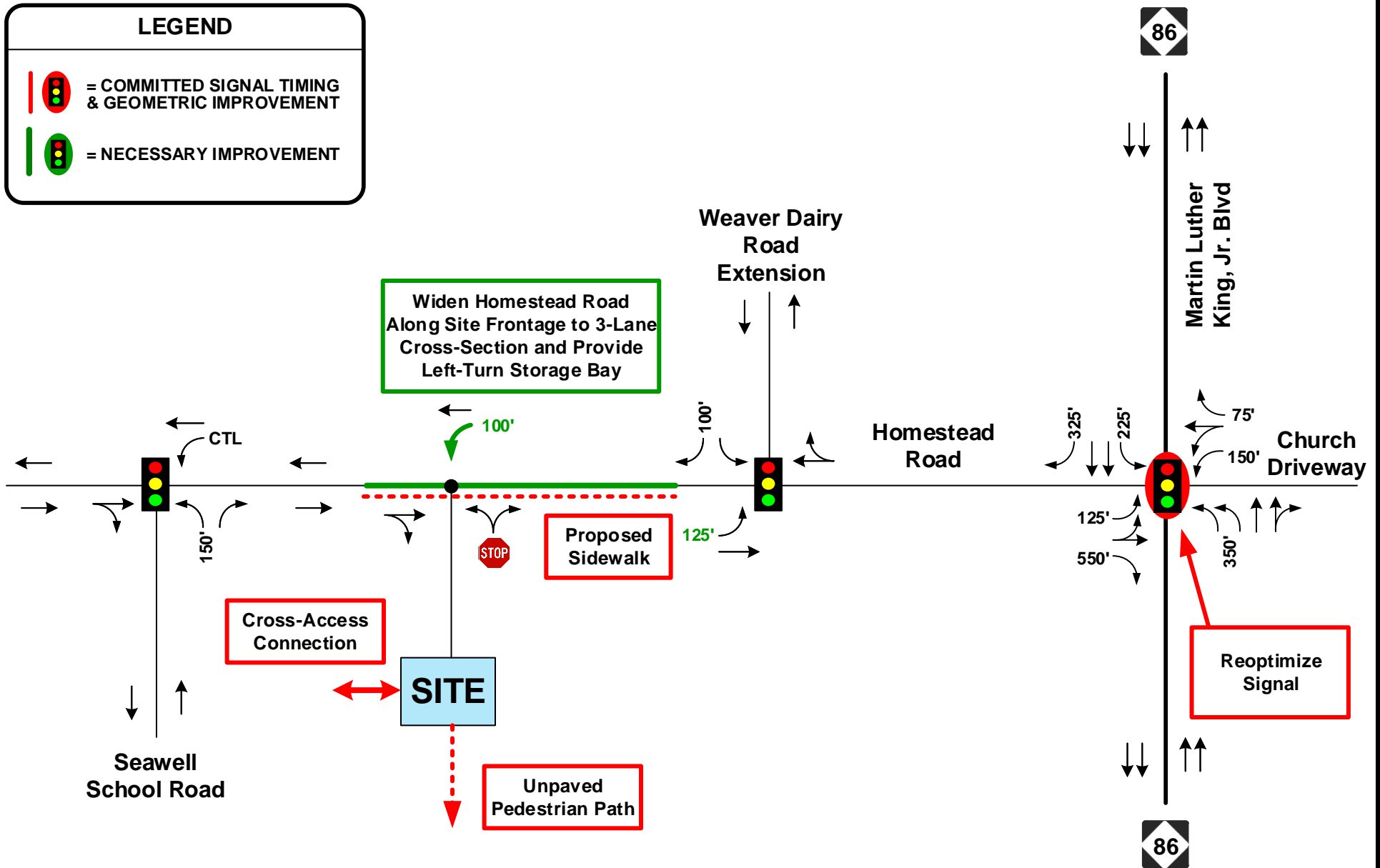
2020 PEAK HOUR TRAFFIC VOLUMES – WITH SITE

DATE: December 2017

FIGURE 13

LEGEND

-  = COMMITTED SIGNAL TIMING & GEOMETRIC IMPROVEMENT
-  = NECESSARY IMPROVEMENT



HNTB



NOT TO SCALE

**Overture Senior Residences
Traffic Impact Study**

COMMITTED AND RECOMMENDED IMPROVEMENTS

DATE: December 2017

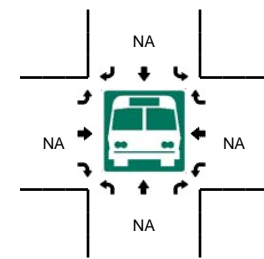
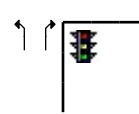
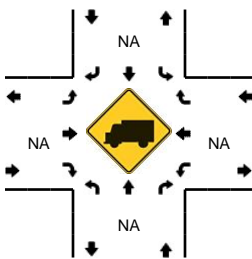
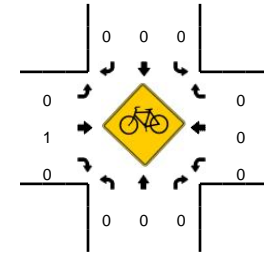
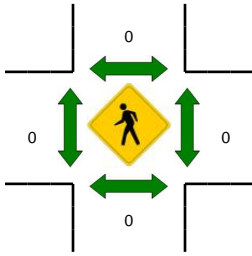
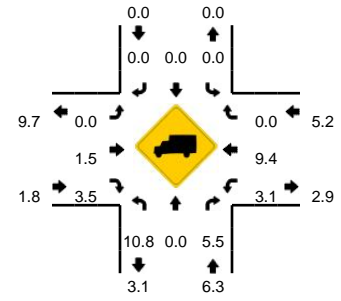
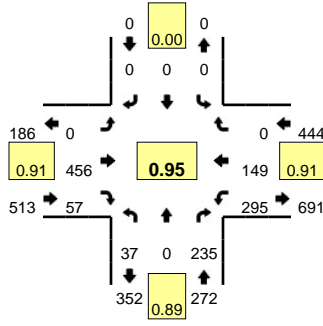
FIGURE 14

Appendix B – Traffic Count Data

LOCATION: Seawell School Rd -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515101
DATE: Thu, Oct 05 2017

Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 8:00 AM -- 8:15 AM



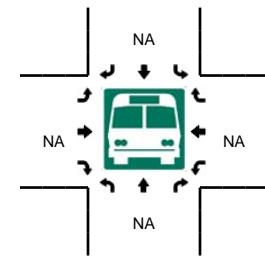
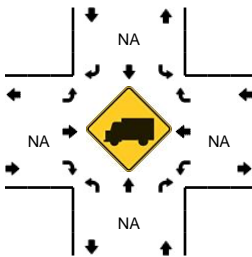
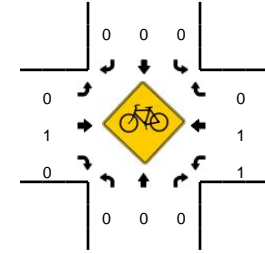
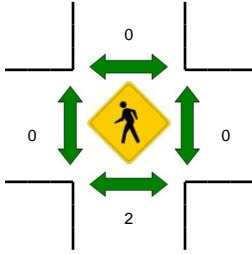
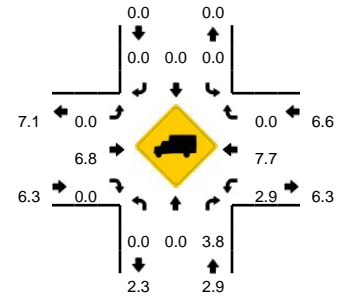
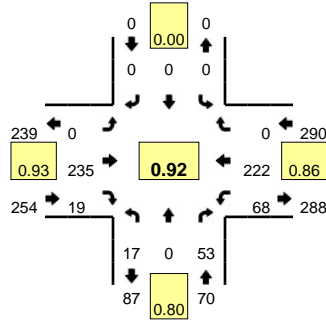
| 15-Min Count Period Beginning At | Seawell School Rd (Northbound) | | | | Seawell School Rd (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|--------------------------------|------|-------|---|--------------------------------|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 7:00 AM | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 3 | 0 | 19 | 21 | 0 | 0 | 99 | |
| 7:15 AM | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 14 | 0 | 40 | 27 | 0 | 0 | 175 | |
| 7:30 AM | 5 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 109 | 12 | 0 | 87 | 35 | 0 | 0 | 293 | |
| 7:45 AM | 9 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | 18 | 0 | 67 | 35 | 0 | 0 | 317 | 884 |
| 8:00 AM | 12 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 16 | 0 | 83 | 31 | 0 | 0 | 325 | 1110 |
| 8:15 AM | 11 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 101 | 11 | 0 | 58 | 48 | 0 | 0 | 294 | 1229 |
| 8:30 AM | 7 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 33 | 0 | 62 | 52 | 0 | 0 | 283 | 1219 |
| 8:45 AM | 2 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 4 | 0 | 35 | 40 | 0 | 0 | 238 | 1140 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| All Vehicles | 48 | 0 | 244 | 0 | 0 | 0 | 0 | 0 | 0 | 488 | 64 | 0 | 332 | 124 | 0 | 0 | 1300 | |
| Heavy Trucks | 4 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 16 | 8 | 0 | 0 | 60 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Railroad | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | |

Comments:

LOCATION: Seawell School Rd -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515102
DATE: Thu, Oct 05 2017

Peak-Hour: 12:30 PM -- 1:30 PM
Peak 15-Min: 12:45 PM -- 1:00 PM



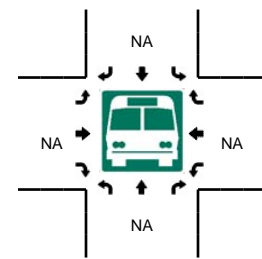
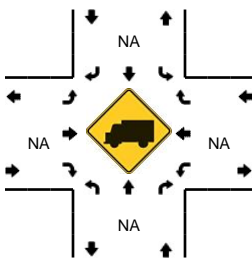
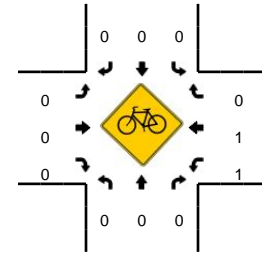
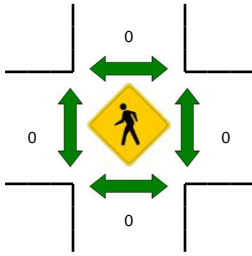
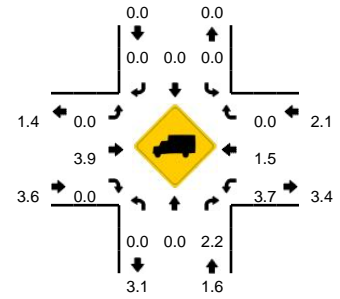
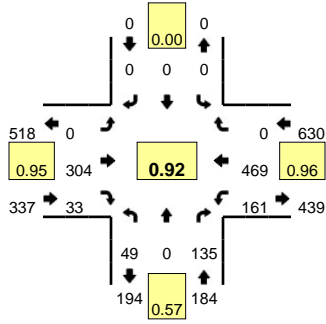
| 15-Min Count Period Beginning At | Seawell School Rd (Northbound) | | | | Seawell School Rd (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|--------------------------------|------|-------|---|--------------------------------|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|--------------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 11:30 AM | 2 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 3 | 0 | 6 | 40 | 0 | 0 | 118 | |
| 11:45 AM | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 51 | 3 | 0 | 12 | 47 | 0 | 0 | 126 | |
| 12:00 PM | 3 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 5 | 0 | 13 | 53 | 0 | 0 | 133 | |
| 12:15 PM | 6 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 4 | 0 | 17 | 59 | 0 | 0 | 138 | 515 |
| 12:30 PM | 5 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 2 | 0 | 13 | 46 | 0 | 0 | 147 | 544 |
| 12:45 PM | 4 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 64 | 4 | 0 | 20 | 59 | 0 | 0 | 167 | 585 |
| 1:00 PM | 2 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 6 | 0 | 20 | 67 | 0 | 0 | 154 | 606 |
| 1:15 PM | 6 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 57 | 7 | 0 | 15 | 50 | 0 | 0 | 146 | 614 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| All Vehicles | 16 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 256 | 16 | 0 | 80 | 236 | 0 | 0 | 668 | |
| Heavy Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 24 | 0 | 0 | 40 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| Railroad | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | |

Comments:

LOCATION: Seawell School Rd -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515103
DATE: Thu, Oct 05 2017

Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:00 PM -- 5:15 PM



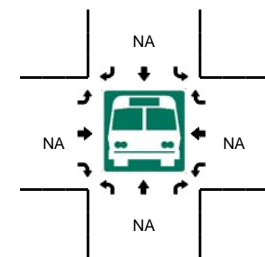
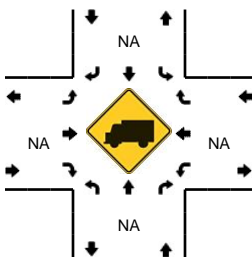
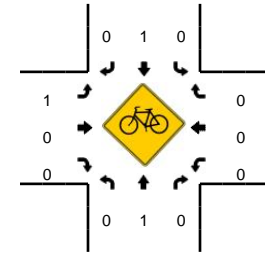
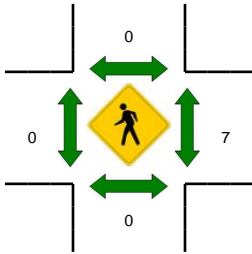
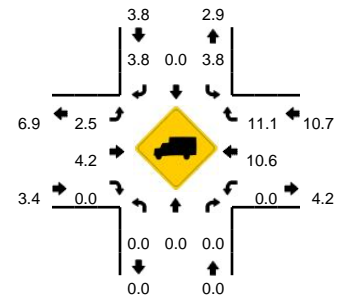
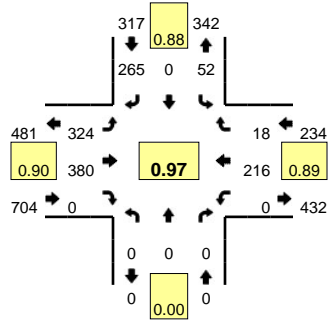
| 15-Min Count Period Beginning At | Seawell School Rd (Northbound) | | | | Seawell School Rd (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|--------------------------------|------|-------|---|--------------------------------|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 4:00 PM | 23 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 15 | 0 | 44 | 79 | 0 | 0 | 310 | |
| 4:15 PM | 11 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 84 | 6 | 0 | 36 | 70 | 0 | 0 | 237 | |
| 4:30 PM | 5 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 7 | 0 | 34 | 82 | 0 | 0 | 235 | |
| 4:45 PM | 14 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 76 | 17 | 0 | 50 | 112 | 0 | 0 | 295 | 1077 |
| 5:00 PM | 13 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 6 | 0 | 47 | 118 | 0 | 0 | 314 | 1081 |
| 5:15 PM | 11 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 8 | 0 | 30 | 121 | 0 | 0 | 250 | 1094 |
| 5:30 PM | 11 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 2 | 0 | 34 | 118 | 0 | 0 | 292 | 1151 |
| 5:45 PM | 9 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 83 | 5 | 0 | 30 | 133 | 0 | 0 | 292 | 1148 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| All Vehicles | 52 | 0 | 168 | 0 | 0 | 0 | 0 | 0 | 0 | 352 | 24 | 0 | 188 | 472 | 0 | 0 | 1256 | |
| Heavy Trucks | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 12 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Railroad | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Stopped Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Comments:

LOCATION: Weaver Dairy Rd Ext -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515104
DATE: Thu, Oct 05 2017

Peak-Hour: 7:30 AM -- 8:30 AM
Peak 15-Min: 7:45 AM -- 8:00 AM



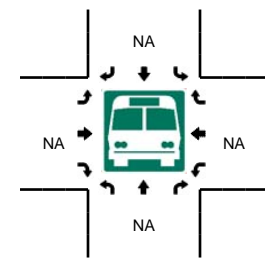
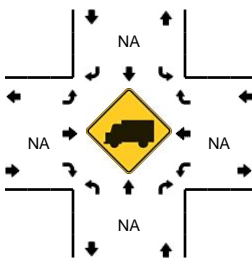
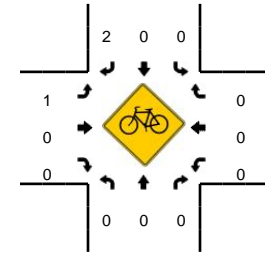
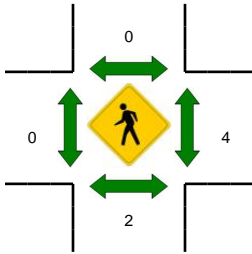
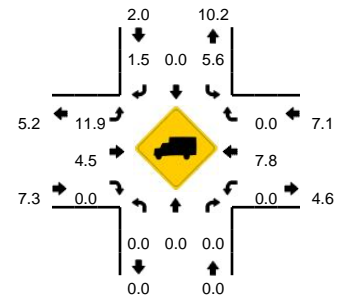
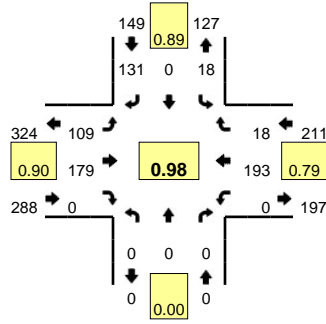
| 15-Min Count Period Beginning At | Weaver Dairy Rd Ext (Northbound) | | | | Weaver Dairy Rd Ext (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|----------------------------------|------|-------|---|----------------------------------|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 7 | 0 | 18 | 0 | 19 | 35 | 0 | 0 | 0 | 30 | 3 | 0 | 112 | |
| 7:15 AM | 0 | 0 | 0 | 0 | 8 | 0 | 33 | 0 | 32 | 59 | 0 | 0 | 0 | 36 | 1 | 0 | 169 | |
| 7:30 AM | 0 | 0 | 0 | 0 | 14 | 0 | 76 | 0 | 78 | 74 | 0 | 0 | 0 | 55 | 2 | 0 | 299 | |
| 7:45 AM | 0 | 0 | 0 | 0 | 14 | 0 | 51 | 0 | 86 | 109 | 0 | 0 | 0 | 57 | 8 | 0 | 325 | 905 |
| 8:00 AM | 0 | 0 | 0 | 0 | 10 | 0 | 73 | 0 | 85 | 103 | 0 | 0 | 0 | 44 | 2 | 0 | 317 | 1110 |
| 8:15 AM | 0 | 0 | 0 | 0 | 14 | 0 | 65 | 0 | 75 | 94 | 0 | 0 | 0 | 60 | 6 | 0 | 314 | 1255 |
| 8:30 AM | 0 | 0 | 0 | 0 | 6 | 0 | 72 | 0 | 66 | 74 | 0 | 0 | 0 | 45 | 4 | 0 | 267 | 1223 |
| 8:45 AM | 0 | 0 | 0 | 0 | 12 | 0 | 42 | 0 | 61 | 106 | 0 | 0 | 0 | 38 | 3 | 0 | 262 | 1160 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| All Vehicles | 0 | 0 | 0 | 0 | 56 | 0 | 204 | 0 | 344 | 436 | 0 | 0 | 0 | 228 | 32 | 0 | 1300 | |
| Heavy Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 28 | 0 | 0 | 0 | 28 | 4 | 0 | 72 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Railroad | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Stopped Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Comments:

LOCATION: Weaver Dairy Rd Ext -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515105
DATE: Thu, Oct 05 2017

Peak-Hour: 12:15 PM -- 1:15 PM
Peak 15-Min: 12:45 PM -- 1:00 PM



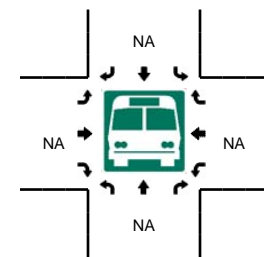
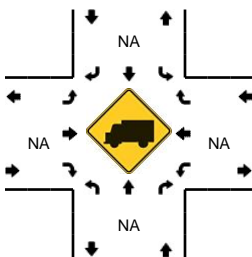
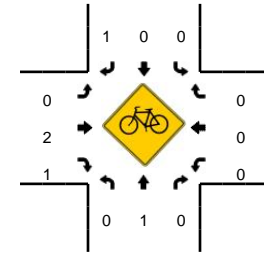
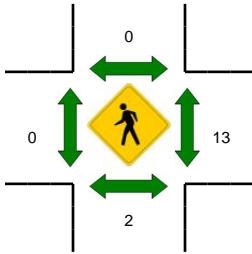
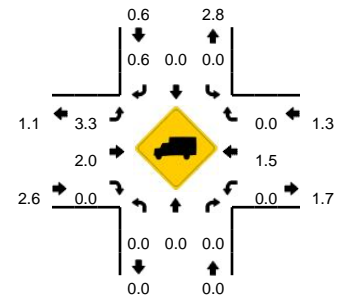
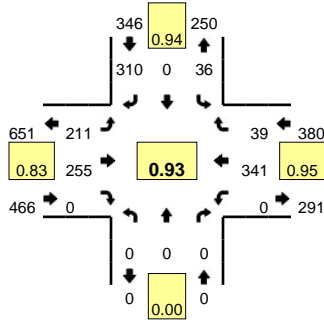
| 15-Min Count Period Beginning At | Weaver Dairy Rd Ext (Northbound) | | | | Weaver Dairy Rd Ext (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|----------------------------------|------|-------|---|----------------------------------|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 11:30 AM | 0 | 0 | 0 | 0 | 4 | 0 | 19 | 0 | 23 | 48 | 0 | 0 | 0 | 26 | 2 | 0 | 122 | |
| 11:45 AM | 0 | 0 | 0 | 0 | 2 | 0 | 22 | 0 | 24 | 40 | 0 | 0 | 0 | 35 | 4 | 0 | 127 | |
| 12:00 PM | 0 | 0 | 0 | 0 | 3 | 0 | 18 | 0 | 21 | 42 | 0 | 0 | 0 | 52 | 1 | 0 | 137 | |
| 12:15 PM | 0 | 0 | 0 | 0 | 5 | 0 | 37 | 0 | 27 | 32 | 0 | 0 | 0 | 49 | 6 | 0 | 156 | 542 |
| 12:30 PM | 0 | 0 | 0 | 0 | 5 | 0 | 29 | 0 | 32 | 53 | 0 | 0 | 0 | 43 | 2 | 0 | 164 | 584 |
| 12:45 PM | 0 | 0 | 0 | 0 | 7 | 0 | 33 | 0 | 28 | 53 | 0 | 0 | 0 | 38 | 6 | 0 | 165 | 622 |
| 1:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 32 | 0 | 22 | 41 | 0 | 0 | 0 | 63 | 4 | 0 | 163 | 648 |
| 1:15 PM | 0 | 0 | 0 | 0 | 3 | 0 | 35 | 0 | 25 | 51 | 0 | 0 | 0 | 38 | 2 | 0 | 154 | 646 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| All Vehicles | 0 | 0 | 0 | 0 | 28 | 0 | 132 | 0 | 112 | 212 | 0 | 0 | 0 | 152 | 24 | 0 | 660 | |
| Heavy Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 4 | 0 | 0 | 0 | 16 | 0 | 0 | 32 | |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| Railroad | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | |

Comments:

LOCATION: Weaver Dairy Rd Ext -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515106
DATE: Thu, Oct 05 2017

Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:00 PM -- 5:15 PM



| 15-Min Count Period Beginning At | Weaver Dairy Rd Ext (Northbound) | | | | Weaver Dairy Rd Ext (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|----------------------------------|------|-------|---|----------------------------------|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 5 | 0 | 52 | 0 | 79 | 69 | 0 | 0 | 0 | 68 | 10 | 0 | 283 | |
| 4:15 PM | 0 | 0 | 0 | 0 | 11 | 0 | 59 | 0 | 46 | 77 | 0 | 0 | 0 | 52 | 8 | 0 | 253 | |
| 4:30 PM | 0 | 0 | 0 | 0 | 6 | 0 | 62 | 0 | 47 | 66 | 0 | 0 | 0 | 75 | 14 | 0 | 270 | |
| 4:45 PM | 0 | 0 | 0 | 0 | 6 | 0 | 66 | 0 | 40 | 70 | 0 | 0 | 0 | 89 | 11 | 0 | 282 | 1088 |
| 5:00 PM | 0 | 0 | 0 | 0 | 5 | 0 | 83 | 0 | 65 | 71 | 0 | 0 | 0 | 85 | 13 | 0 | 322 | 1127 |
| 5:15 PM | 0 | 0 | 0 | 0 | 12 | 0 | 73 | 0 | 45 | 39 | 0 | 0 | 0 | 79 | 6 | 0 | 254 | 1128 |
| 5:30 PM | 0 | 0 | 0 | 0 | 9 | 0 | 72 | 0 | 52 | 74 | 0 | 0 | 0 | 90 | 8 | 0 | 305 | 1163 |
| 5:45 PM | 0 | 0 | 0 | 0 | 10 | 0 | 82 | 0 | 49 | 71 | 0 | 0 | 0 | 87 | 12 | 0 | 311 | 1192 |

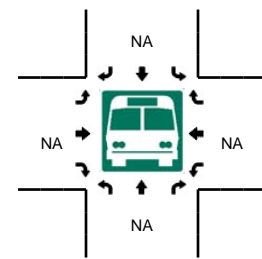
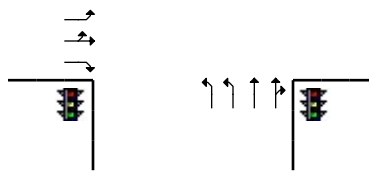
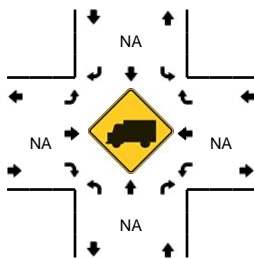
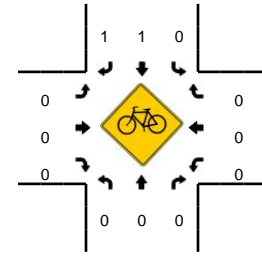
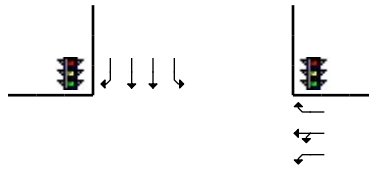
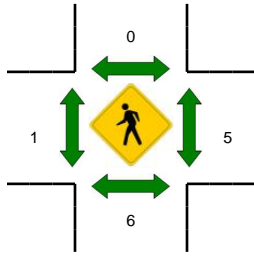
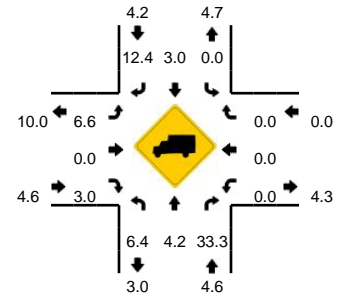
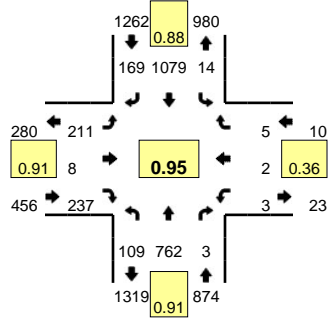
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total |
|-----------------------|------------|------|-------|---|------------|------|-------|---|-----------|------|-------|---|-----------|------|-------|---|-------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | |
| All Vehicles | 0 | 0 | 0 | 0 | 20 | 0 | 332 | 0 | 260 | 284 | 0 | 0 | 0 | 340 | 52 | 0 | 1288 |
| Heavy Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 12 |
| Pedestrians | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 12 |
| Bicycles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Railroad | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stopped Buses | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

LOCATION: Martin Luther King Jr Blvd -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515107
DATE: Thu, Oct 05 2017

Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

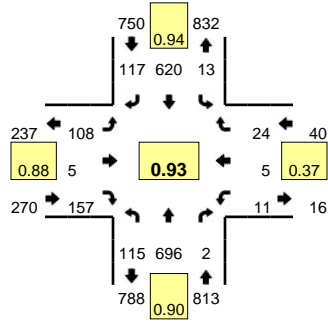


| 15-Min Count Period Beginning At | Martin Luther King Jr Blvd (Northbound) | | | | Martin Luther King Jr Blvd (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|---|------|-------|---|---|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 7:00 AM | 18 | 108 | 1 | 0 | 0 | 146 | 17 | 0 | 20 | 0 | 26 | 0 | 0 | 0 | 1 | 0 | 337 | |
| 7:15 AM | 9 | 143 | 0 | 0 | 2 | 207 | 27 | 0 | 25 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 457 | |
| 7:30 AM | 19 | 139 | 0 | 0 | 2 | 313 | 51 | 0 | 40 | 0 | 55 | 0 | 0 | 0 | 1 | 0 | 620 | |
| 7:45 AM | 30 | 200 | 1 | 0 | 2 | 287 | 38 | 1 | 59 | 0 | 63 | 0 | 1 | 0 | 2 | 0 | 684 | 2098 |
| 8:00 AM | 19 | 190 | 0 | 0 | 2 | 242 | 40 | 1 | 58 | 2 | 66 | 0 | 0 | 0 | 0 | 0 | 620 | 2381 |
| 8:15 AM | 32 | 162 | 1 | 0 | 3 | 250 | 51 | 0 | 48 | 3 | 65 | 0 | 0 | 0 | 0 | 0 | 615 | 2539 |
| 8:30 AM | 28 | 210 | 1 | 0 | 5 | 300 | 40 | 0 | 46 | 3 | 43 | 0 | 2 | 2 | 3 | 0 | 683 | 2602 |
| 8:45 AM | 31 | 168 | 1 | 0 | 7 | 270 | 29 | 0 | 42 | 1 | 62 | 0 | 1 | 0 | 1 | 0 | 613 | 2531 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| All Vehicles | 120 | 800 | 4 | 0 | 8 | 1148 | 152 | 4 | 236 | 0 | 252 | 0 | 4 | 0 | 8 | 0 | 2736 | |
| Heavy Trucks | 12 | 16 | 0 | | 0 | 32 | 24 | | 24 | 0 | 0 | | 0 | 0 | 0 | | 108 | |
| Pedestrians | | 8 | | | | 0 | | | | 0 | | | | 4 | | | 12 | |
| Bicycles | 0 | 0 | 0 | | 0 | 0 | 1 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | |
| Railroad | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | |

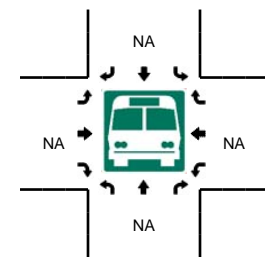
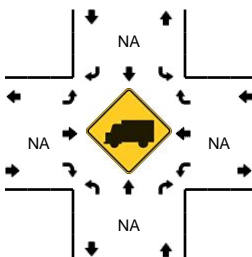
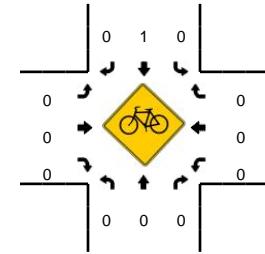
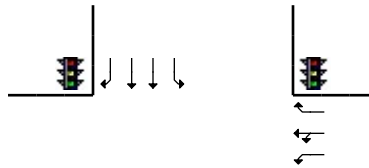
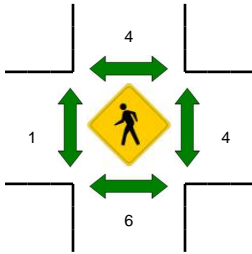
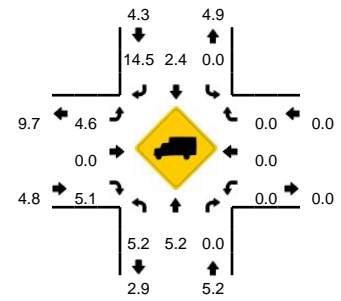
Comments:

LOCATION: Martin Luther King Jr Blvd -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515108
DATE: Thu, Oct 05 2017



Peak-Hour: 12:00 PM -- 1:00 PM
Peak 15-Min: 12:45 PM -- 1:00 PM

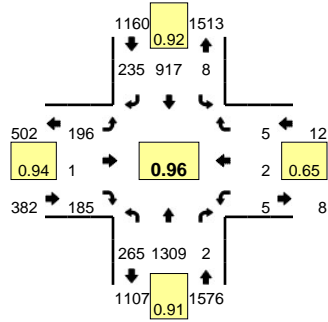


| 15-Min Count Period Beginning At | Martin Luther King Jr Blvd (Northbound) | | | | Martin Luther King Jr Blvd (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|---|------|-------|---|---|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 11:30 AM | 13 | 119 | 1 | 0 | 1 | 163 | 21 | 3 | 38 | 0 | 39 | 0 | 0 | 1 | 1 | 0 | 400 | |
| 11:45 AM | 40 | 144 | 2 | 0 | 13 | 160 | 12 | 1 | 27 | 5 | 31 | 0 | 0 | 2 | 1 | 0 | 438 | |
| 12:00 PM | 24 | 167 | 0 | 0 | 2 | 148 | 30 | 1 | 32 | 0 | 44 | 0 | 9 | 5 | 13 | 0 | 475 | |
| 12:15 PM | 26 | 190 | 1 | 0 | 0 | 157 | 30 | 2 | 21 | 0 | 28 | 0 | 0 | 0 | 4 | 0 | 459 | 1772 |
| 12:30 PM | 27 | 149 | 1 | 0 | 2 | 152 | 27 | 0 | 33 | 1 | 43 | 0 | 0 | 0 | 3 | 0 | 438 | 1810 |
| 12:45 PM | 38 | 190 | 0 | 0 | 5 | 163 | 30 | 1 | 22 | 4 | 42 | 0 | 2 | 0 | 4 | 0 | 501 | 1873 |
| 1:00 PM | 32 | 160 | 0 | 0 | 0 | 142 | 32 | 0 | 36 | 0 | 31 | 0 | 2 | 7 | 4 | 0 | 446 | 1844 |
| 1:15 PM | 28 | 192 | 0 | 0 | 0 | 150 | 23 | 0 | 24 | 0 | 33 | 0 | 1 | 2 | 1 | 0 | 454 | 1839 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| All Vehicles | 152 | 760 | 0 | 0 | 20 | 652 | 120 | 4 | 88 | 16 | 168 | 0 | 8 | 0 | 16 | 0 | 2004 | |
| Heavy Trucks | 12 | 24 | 0 | 0 | 0 | 28 | 20 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 92 | |
| Pedestrians | | 4 | | | | 12 | | | | 0 | | | | 4 | | | 20 | |
| Bicycles | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | |
| Railroad | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | |

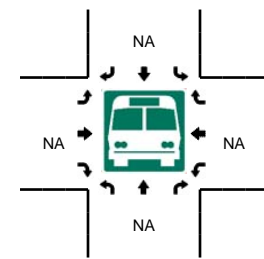
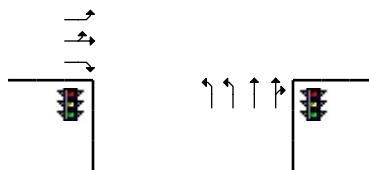
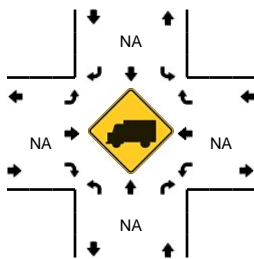
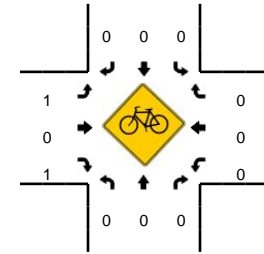
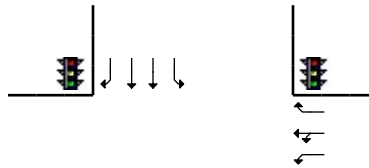
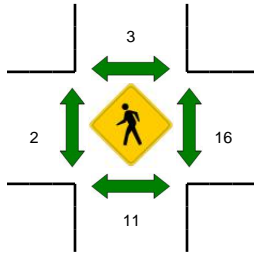
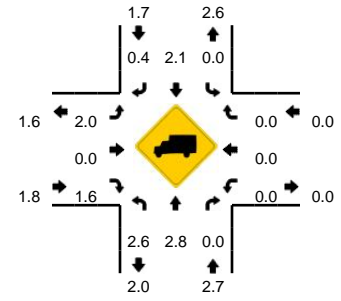
Comments:

LOCATION: Martin Luther King Jr Blvd -- Homestead Rd
CITY/STATE: Chapel Hill, NC

QC JOB #: 14515109
DATE: Thu, Oct 05 2017



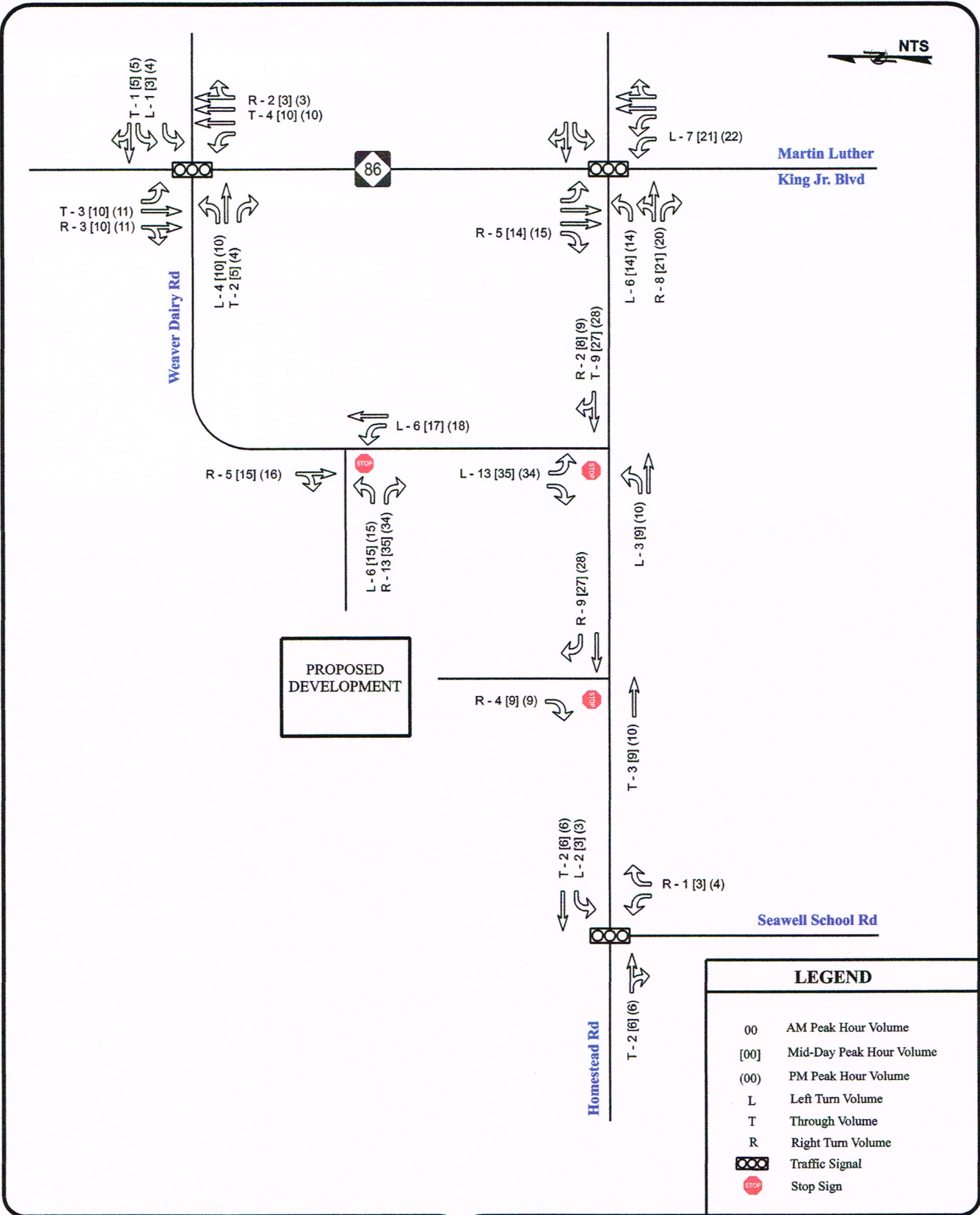
Peak-Hour: 4:45 PM -- 5:45 PM
Peak 15-Min: 5:15 PM -- 5:30 PM



| 15-Min Count Period Beginning At | Martin Luther King Jr Blvd (Northbound) | | | | Martin Luther King Jr Blvd (Southbound) | | | | Homestead Rd (Eastbound) | | | | Homestead Rd (Westbound) | | | | Total | Hourly Totals |
|----------------------------------|---|------|-------|---|---|------|-------|---|--------------------------|------|-------|---|--------------------------|------|-------|---|-------|---------------|
| | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | Left | Thru | Right | U | | |
| 4:00 PM | 42 | 230 | 0 | 0 | 0 | 157 | 40 | 2 | 37 | 0 | 36 | 0 | 0 | 2 | 1 | 0 | 547 | |
| 4:15 PM | 40 | 282 | 0 | 0 | 1 | 178 | 34 | 0 | 50 | 0 | 56 | 0 | 0 | 1 | 0 | 0 | 642 | |
| 4:30 PM | 65 | 270 | 1 | 0 | 2 | 182 | 32 | 1 | 50 | 1 | 62 | 0 | 0 | 0 | 3 | 0 | 669 | |
| 4:45 PM | 77 | 356 | 2 | 0 | 1 | 200 | 48 | 2 | 59 | 1 | 54 | 0 | 1 | 1 | 1 | 0 | 803 | 2661 |
| 5:00 PM | 58 | 313 | 0 | 0 | 2 | 231 | 67 | 0 | 51 | 0 | 43 | 0 | 0 | 1 | 1 | 0 | 767 | 2881 |
| 5:15 PM | 57 | 362 | 0 | 0 | 1 | 269 | 49 | 1 | 41 | 0 | 33 | 0 | 2 | 0 | 3 | 0 | 818 | 3057 |
| 5:30 PM | 73 | 278 | 0 | 0 | 1 | 217 | 71 | 0 | 45 | 0 | 55 | 0 | 2 | 0 | 0 | 0 | 742 | 3130 |
| 5:45 PM | 67 | 332 | 0 | 0 | 0 | 207 | 61 | 1 | 37 | 0 | 63 | 0 | 1 | 0 | 0 | 0 | 769 | 3096 |
| Peak 15-Min Flowrates | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Total | |
| All Vehicles | 228 | 1448 | 0 | 0 | 4 | 1076 | 196 | 4 | 164 | 0 | 132 | 0 | 8 | 0 | 12 | 0 | 3272 | |
| Heavy Trucks | 4 | 36 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | |
| Pedestrians | | 0 | | | | 4 | | | | 0 | | | | 4 | | | 8 | |
| Bicycles | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | |
| Railroad | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | |

Comments:

Appendix C – Background Generator Information



PROPOSED
DEVELOPMENT

| LEGEND | |
|--------|--------------------------|
| 00 | AM Peak Hour Volume |
| [00] | Mid-Day Peak Hour Volume |
| (00) | PM Peak Hour Volume |
| L | Left Turn Volume |
| T | Through Volume |
| R | Right Turn Volume |
| | Traffic Signal |
| | Stop Sign |

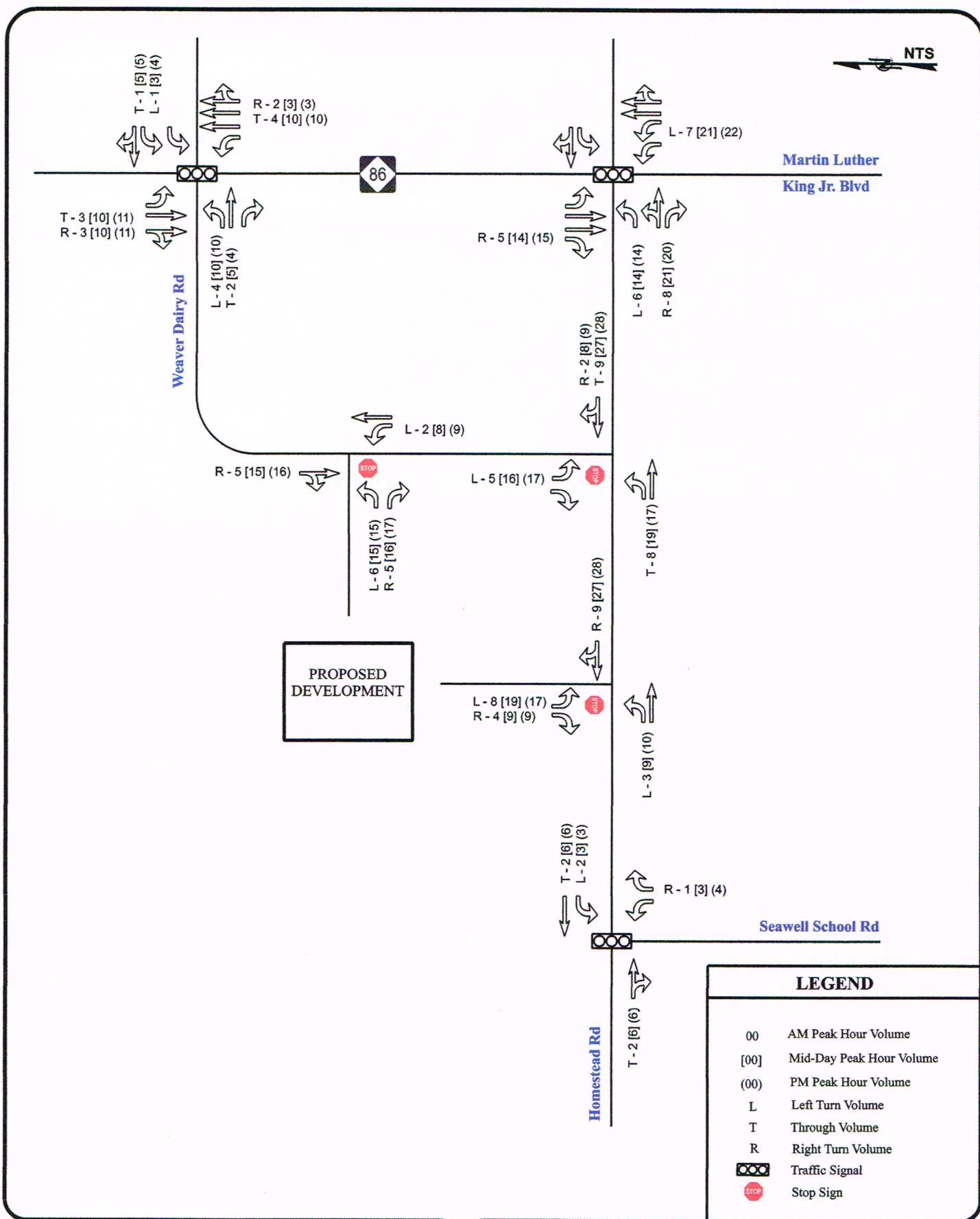


**FRALEY PROPERTY
DEVELOPMENT
TRAFFIC IMPACT
ANALYSIS**




**SITE TRIP ASSIGNMENT
SCENARIO 2**

Figure 9



| LEGEND | |
|--------|--------------------------|
| 00 | AM Peak Hour Volume |
| [00] | Mid-Day Peak Hour Volume |
| (00) | PM Peak Hour Volume |
| L | Left Turn Volume |
| T | Through Volume |
| R | Right Turn Volume |
| | Traffic Signal |
| | Stop Sign |



**FRALEY PROPERTY
DEVELOPMENT
TRAFFIC IMPACT
ANALYSIS**



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RS&H Architects-Engineers-Planners, Inc.

**SITE TRIP ASSIGNMENT
SCENARIO 1**

Figure 8

Trip Generation Summary

Alternative: Alternative 1

Phase:

Open Date: 10/26/2017

Project: Courtyards of Homestead

Analysis Date: 10/26/2017

| ITE | Land Use | Weekday Average Daily Trips | | | Weekday AM Peak Hour of Adjacent Street Traffic | | | Weekday PM Peak Hour of Adjacent Street Traffic | | | | | |
|----------------------------------|-------------------|-----------------------------|-------|------|---|---|-------|---|-------|---|-------|------|-------|
| | | * | Enter | Exit | Total | * | Enter | Exit | Total | * | Enter | Exit | Total |
| 210 | SFHOUSE 1 | | 300 | 300 | 600 | | 12 | 35 | 47 | | 40 | 23 | 63 |
| | 63 Dwelling Units | | | | | | | | | | | | |
| Unadjusted Volume | | | 300 | 300 | 600 | | 12 | 35 | 47 | | 40 | 23 | 63 |
| Internal Capture Trips | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Pass-By Trips | | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 |
| Volume Added to Adjacent Streets | | | 300 | 300 | 600 | | 12 | 35 | 47 | | 40 | 23 | 63 |

Total Weekday Average Daily Trips Internal Capture = 0 Percent

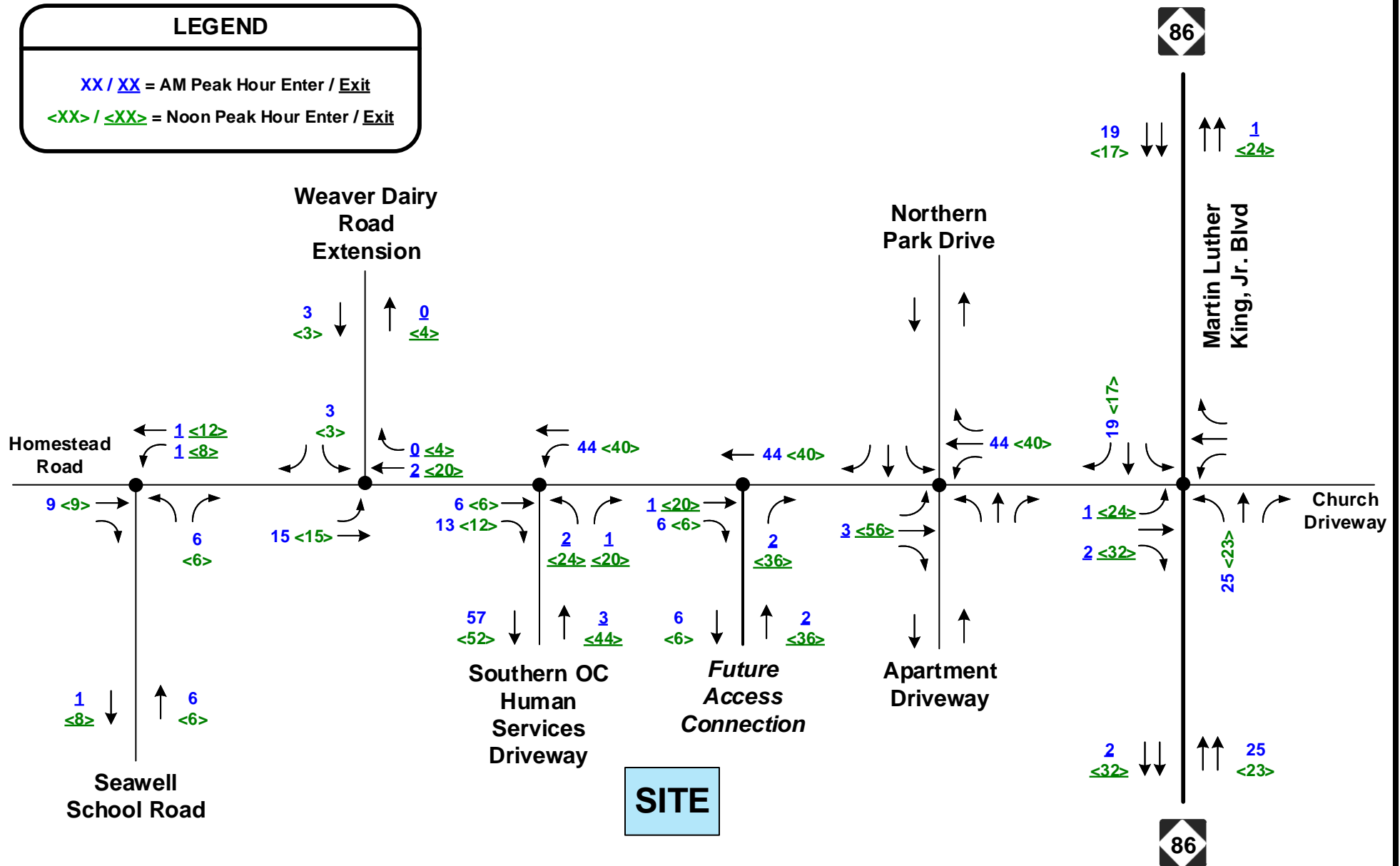
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

* - Custom rate used for selected time period.

LEGEND

XX / XX = AM Peak Hour Enter / Exit
 <XX> / <XX> = Noon Peak Hour Enter / Exit



HNTB



NOT TO SCALE

**Southern Orange County Government Services Campus
 Traffic Impact Study**

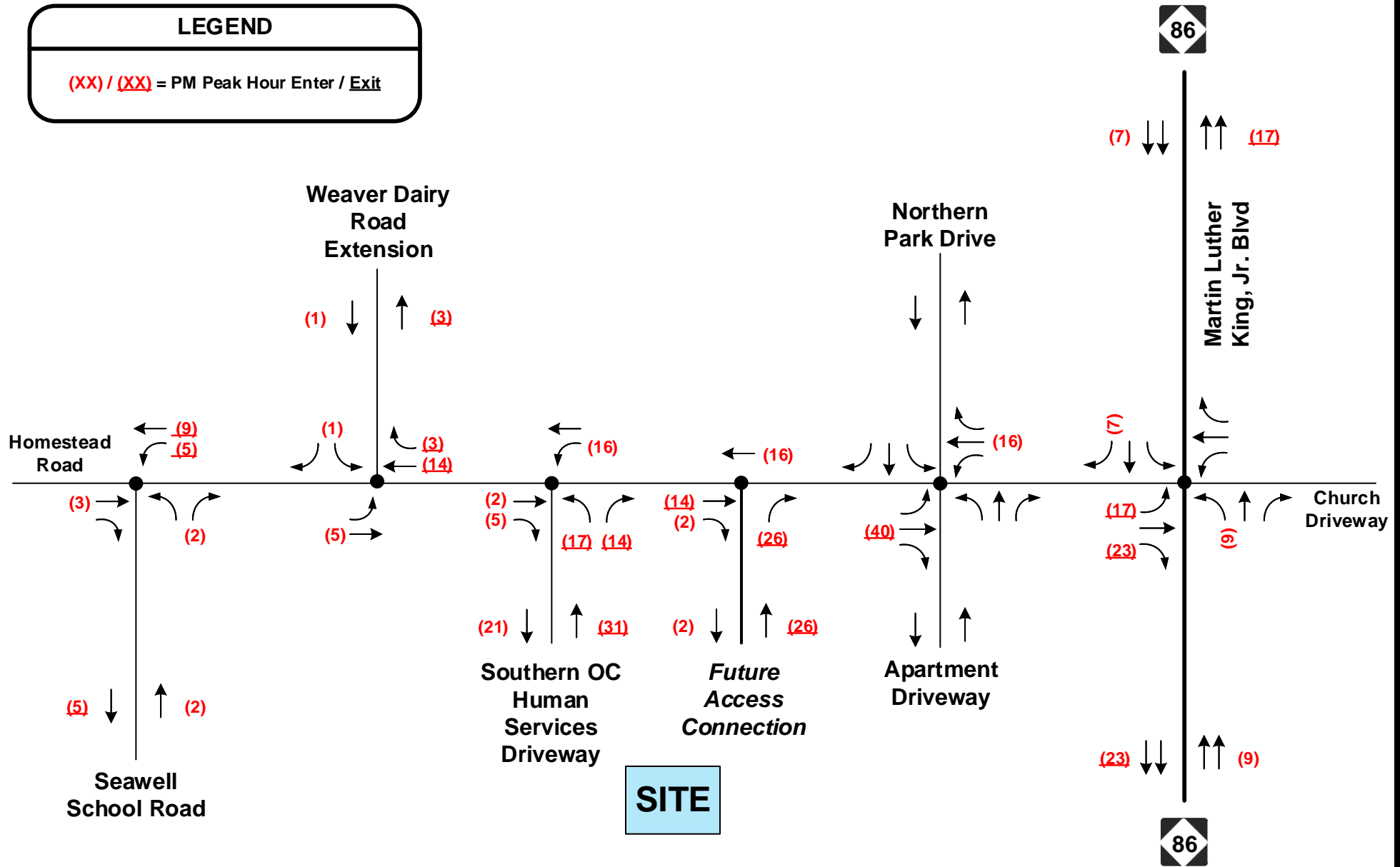
DATE: November 2013

PEAK HOUR SITE TRIP ASSIGNMENT

FIGURE 12A

LEGEND

(XX) / (XX) = PM Peak Hour Enter / Exit



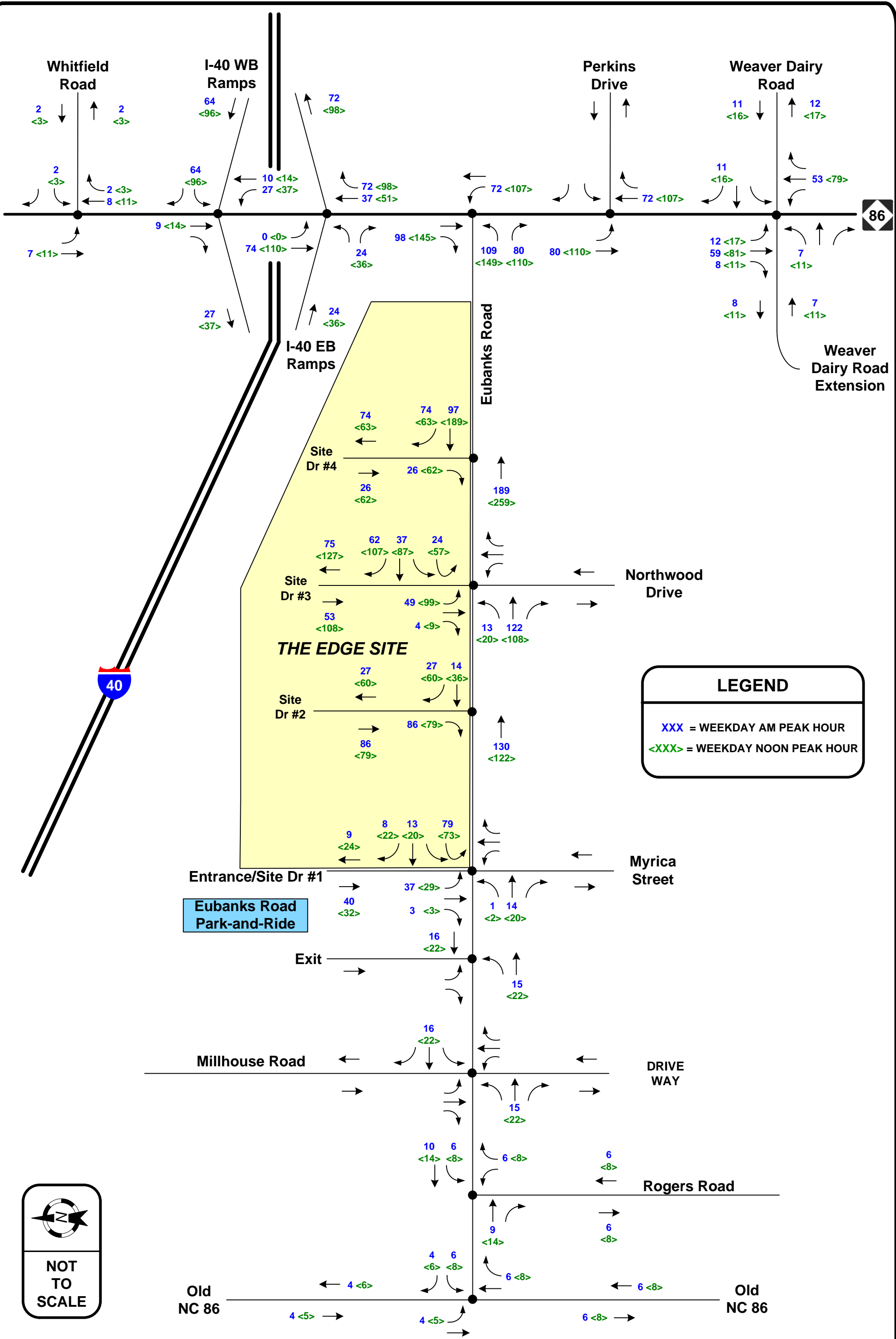
NOT TO SCALE

Southern Orange County Government Services Campus
Traffic Impact Study

DATE: November 2013

PEAK HOUR SITE TRIP ASSIGNMENT

FIGURE 12B

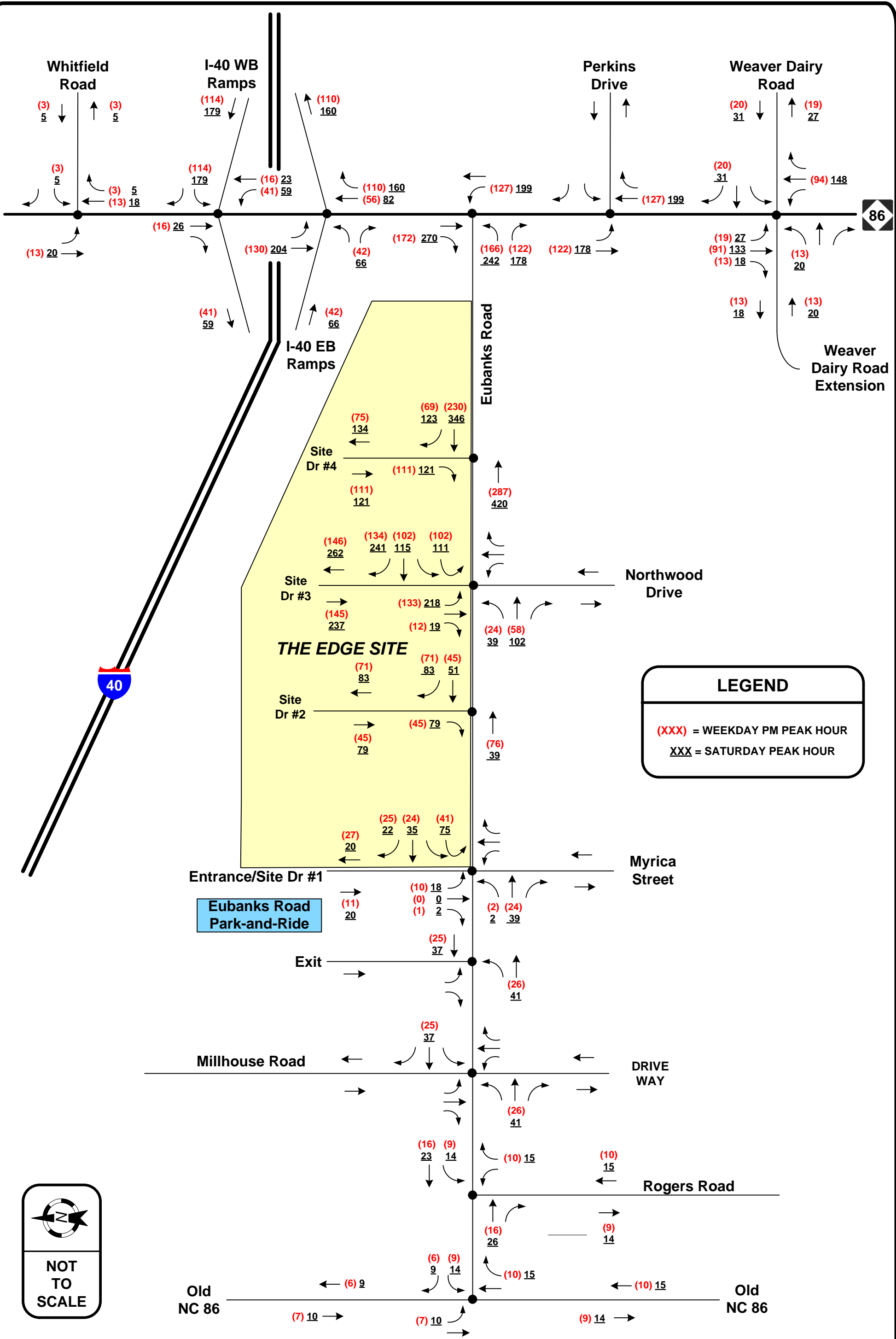


The Edge Development – 2013 Update
 Traffic Impact Study

2017 PHASE 1 – PEAK HOUR SITE TRAFFIC ASSIGNMENT

DATE: August 2013

FIGURE 11A



The Edge Development – 2013 Update
 Traffic Impact Study

2017 PHASE 1 – PEAK HOUR SITE TRAFFIC ASSIGNMENT

DATE: August 2013

FIGURE 11B

Appendix D - Traffic Volume Development
Spreadsheets

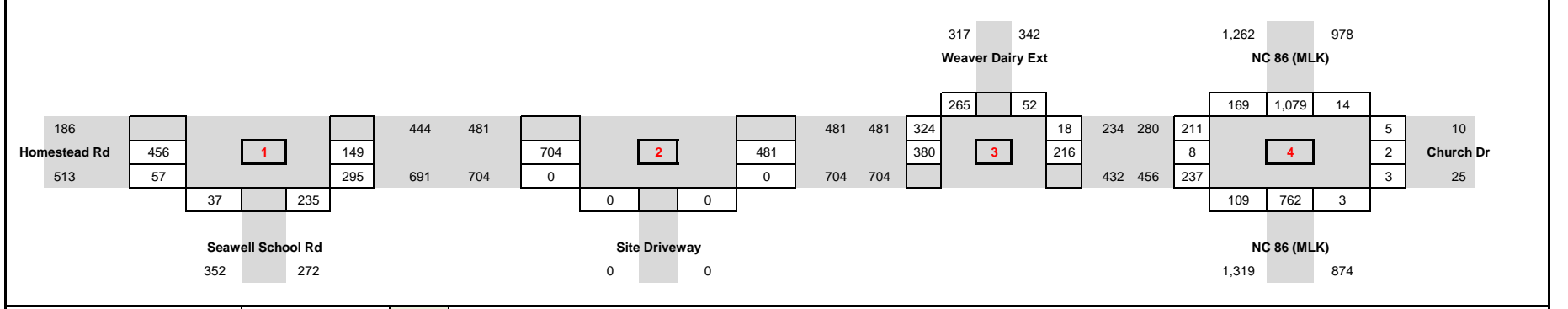
Overture Senior Apartments Trip Generation Results

| ITE LUC | Description | Density | Daily | | | AM Peak | | | Noon Peak | | | PM Peak | | |
|---------|---------------------------------|-----------|-------|------|-------|---------|------|-------|-----------|------|-------|---------|------|-------|
| | | | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| 252 | Senior Adult Housing - Attached | 190 Units | 327 | 327 | 654 | 13 | 25 | 38 | 20 | 24 | 44 | 26 | 22 | 48 |

2017 Count Data

10/15/2017

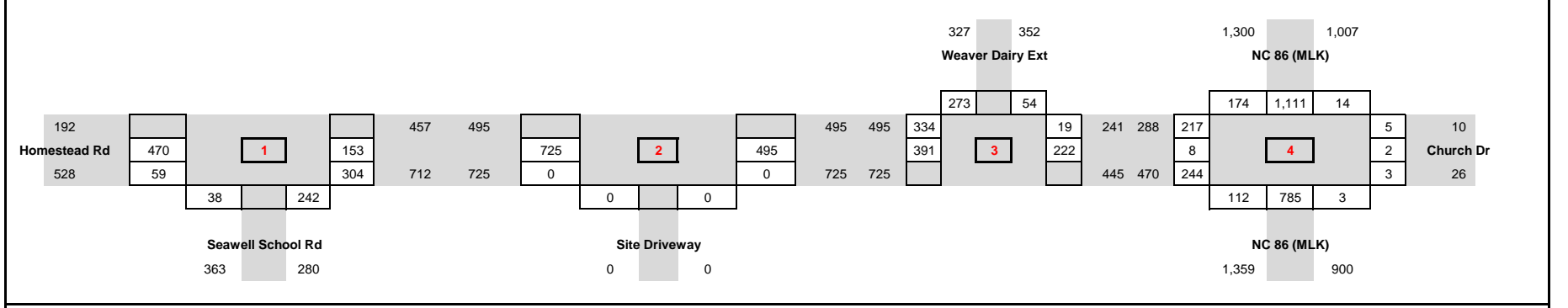
Peak AM



2020 Ambient Growth

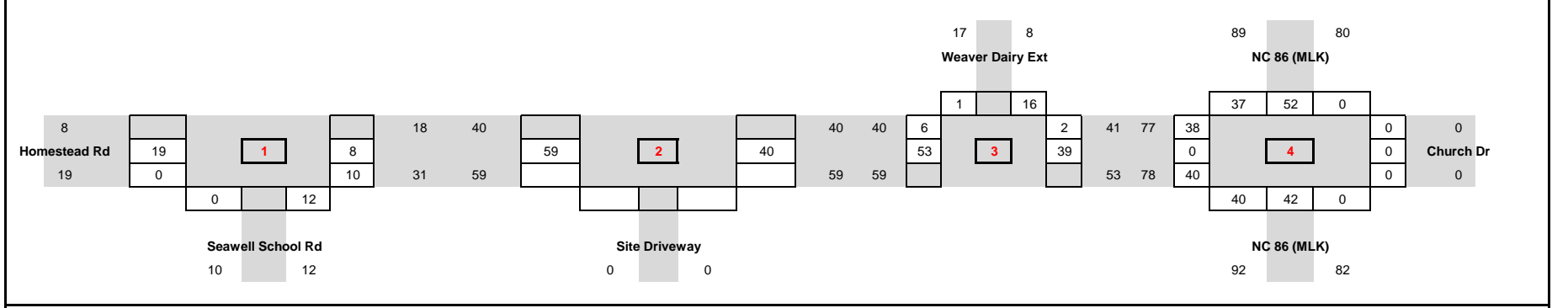
| | |
|------------------------|-------|
| Ambient Growth Rate/Yr | 1.0% |
| Ambient Growth Total = | 1.030 |

Peak AM



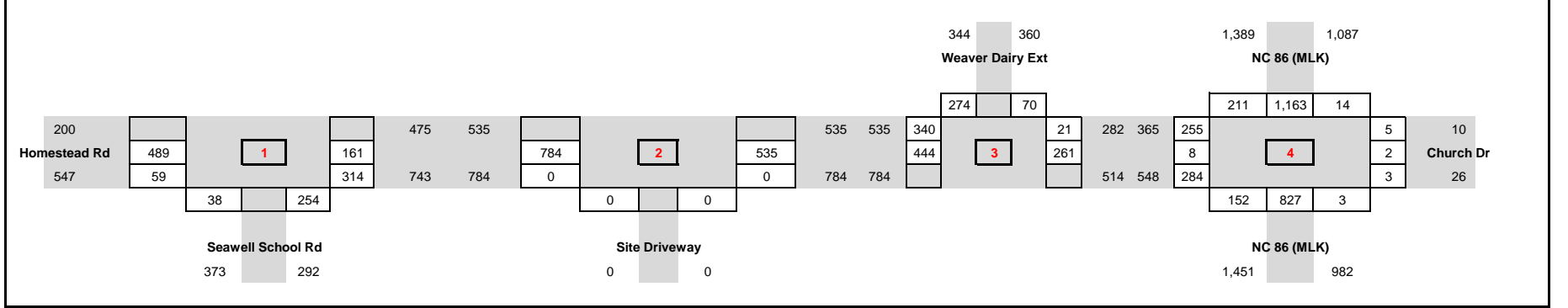
Total Background Traffic Volumes

Peak AM



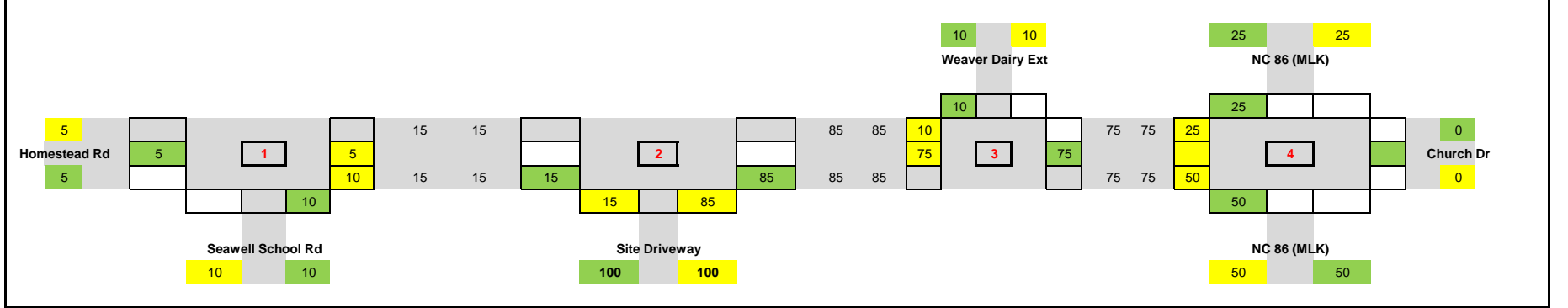
2020 Traffic Without Site

Peak AM



2020 Site Trip Distribution Percentages

Peak AM



2020 Site Traffic Assignment

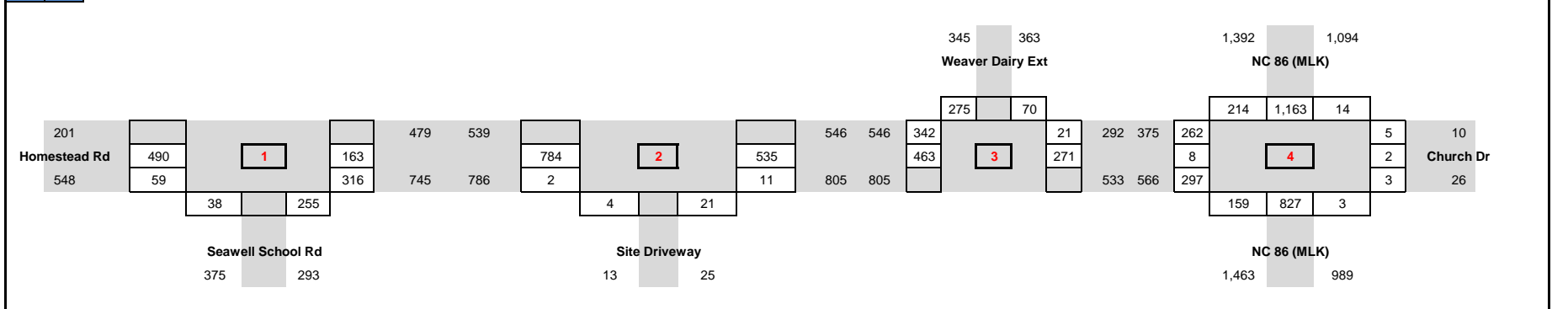
Peak AM

| | | |
|----------------|----|-----|
| | IN | OUT |
| Trip Gen | 13 | 25 |
| External Check | 13 | 25 |



2020 Traffic With Site

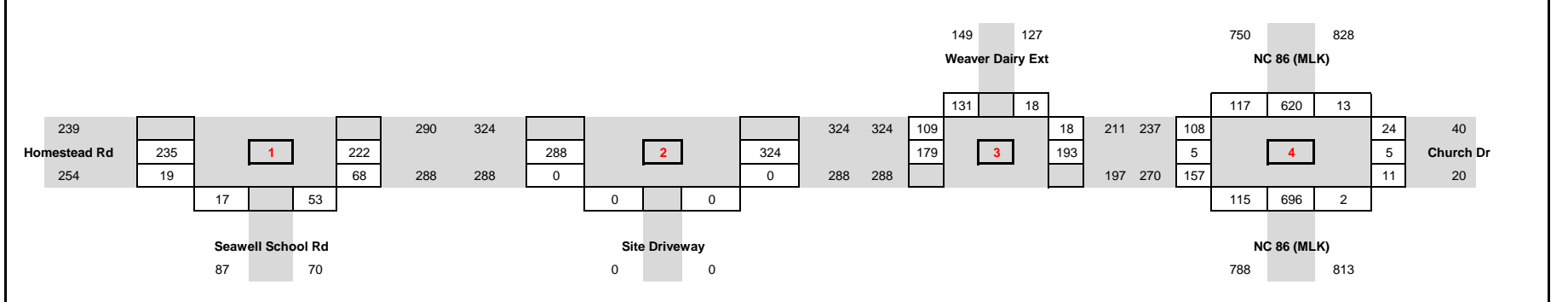
Peak AM



2017 Count Data

10/15/2017

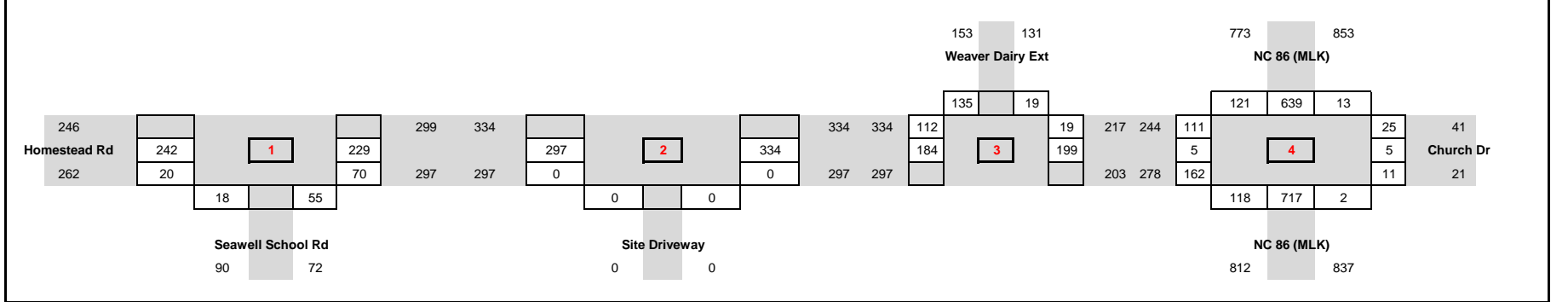
Peak Noon



2020 Ambient Growth

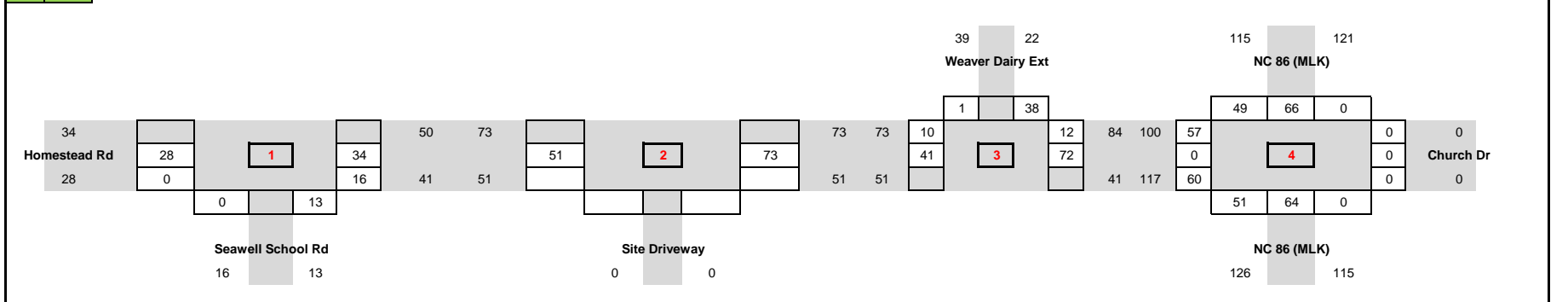
| | |
|-------------------------|-------|
| Ambient Growth Rate/Yr. | 1.0% |
| Ambient Growth Total = | 1.030 |

Peak Noon



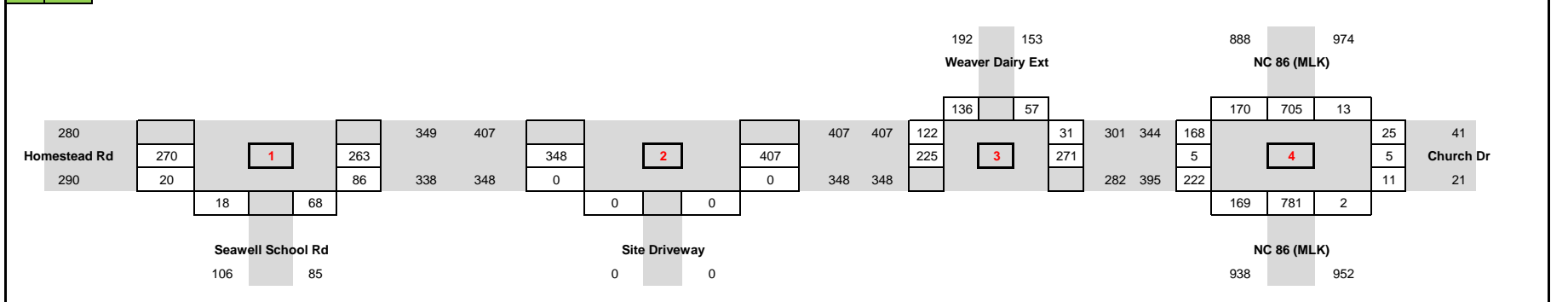
Total Background Traffic Volumes

Peak Noon



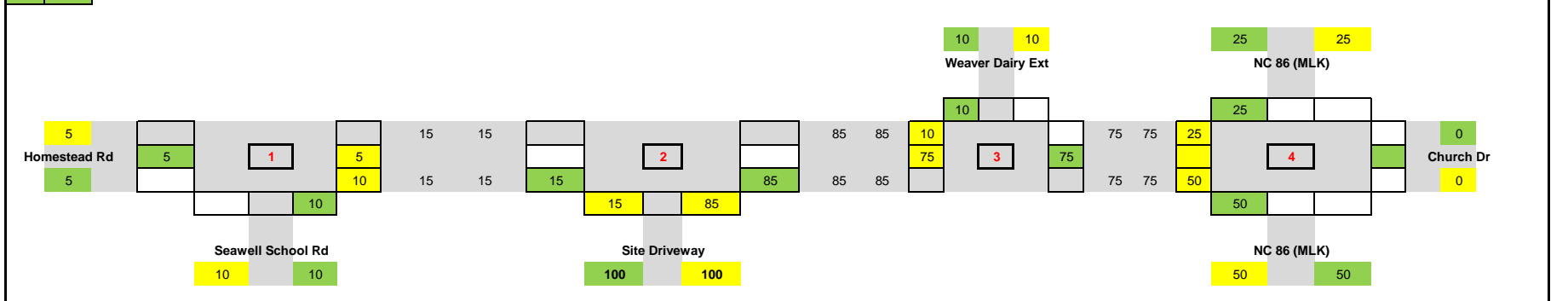
2020 Traffic Without Site

Peak Noon



2020 Site Trip Distribution Percentages

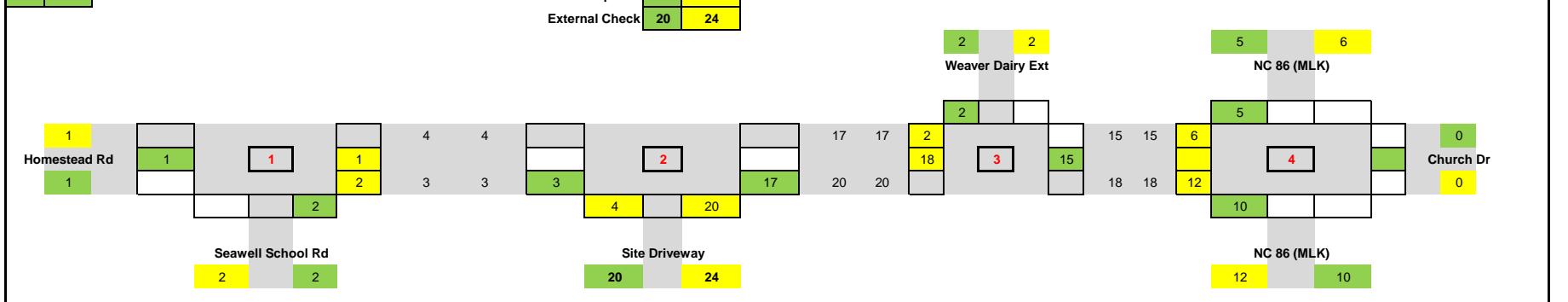
Peak Noon



2020 Site Traffic Assignment

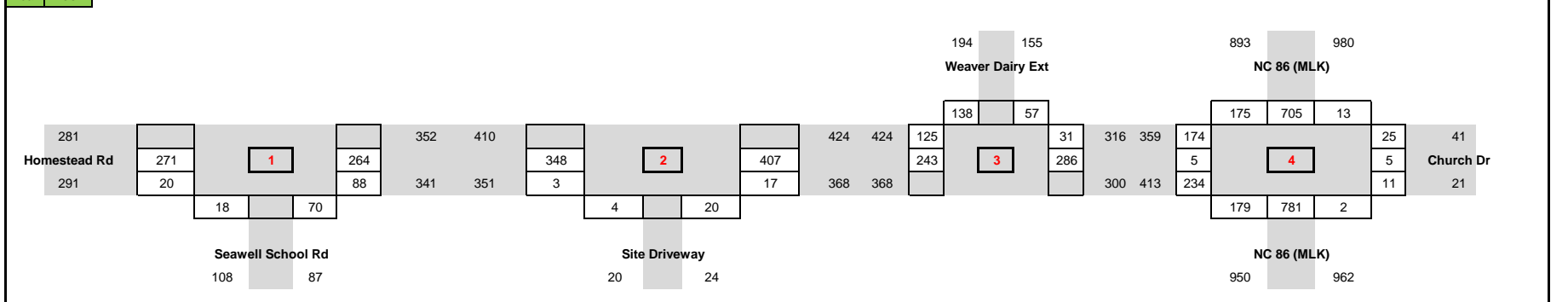
Peak Noon

| | | |
|----------------|----|-----|
| | IN | OUT |
| Trip Gen | 20 | 24 |
| External Check | 20 | 24 |



2020 Traffic With Site

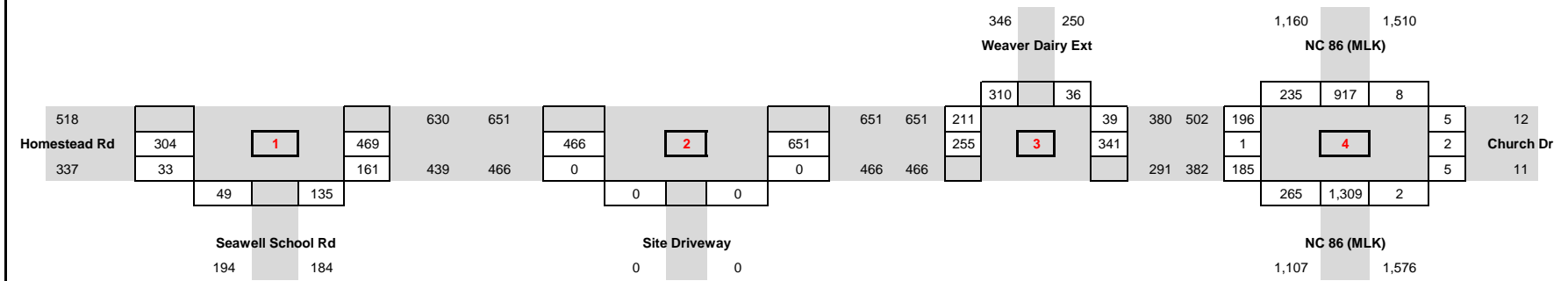
Peak Noon



2017 Count Data

10/15/2017

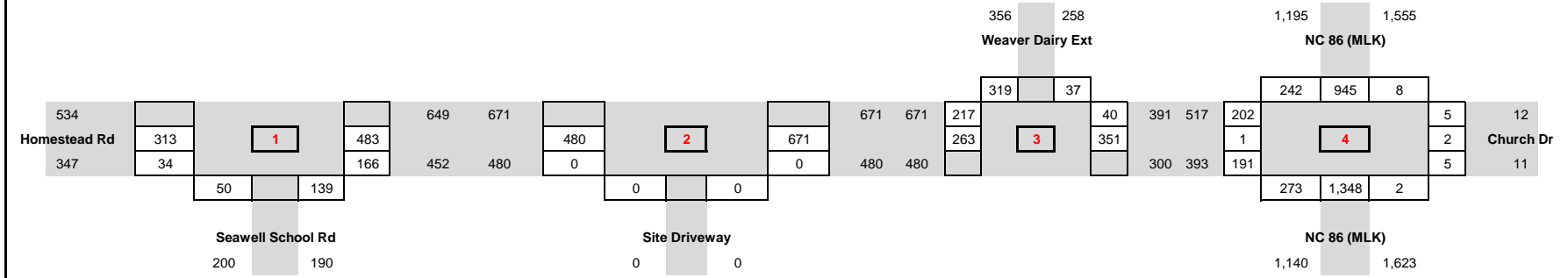
Peak PM



2020 Ambient Growth

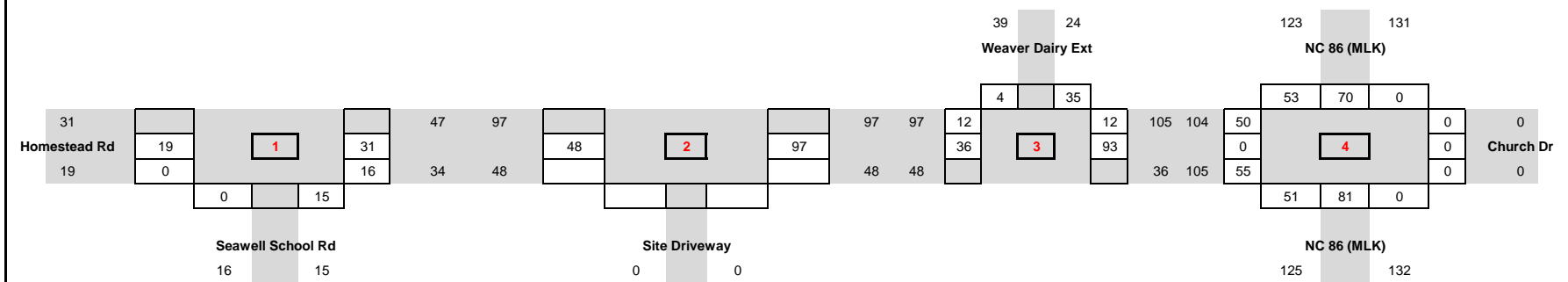
| | |
|------------------------|-------|
| Ambient Growth Rate/Yr | 1.0% |
| Ambient Growth Total = | 1.030 |

Peak PM



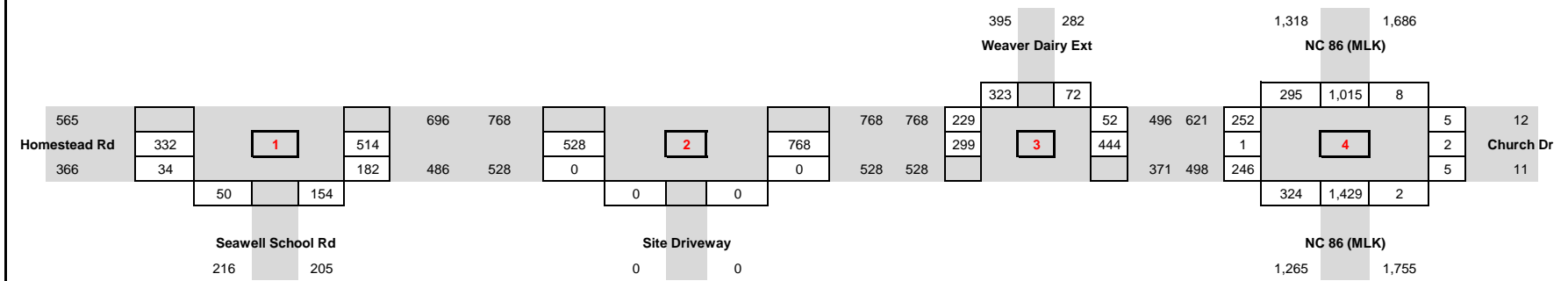
Total Background Traffic Volumes

Peak PM



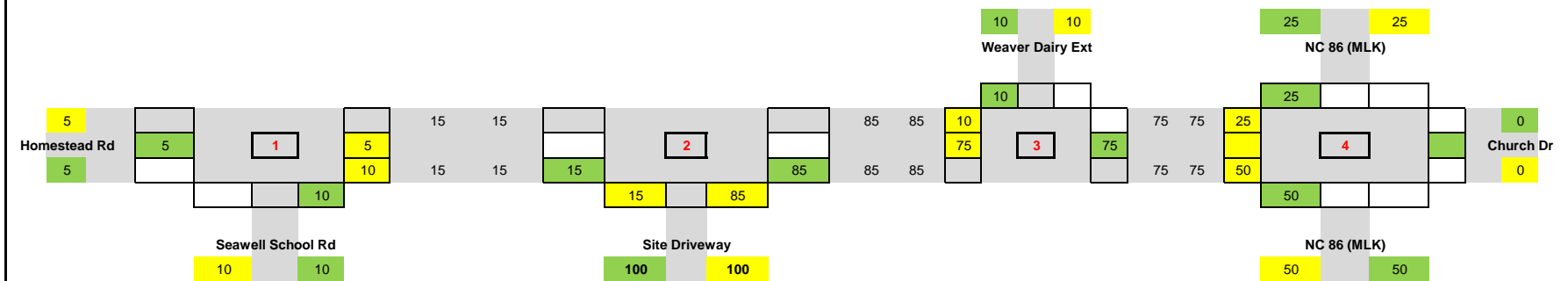
2020 Traffic Without Site

Peak PM



2020 Site Trip Distribution Percentages

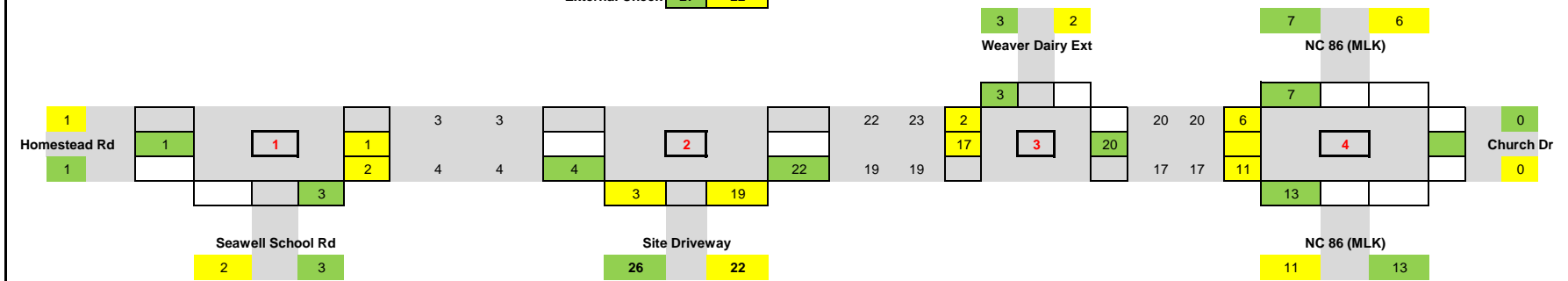
Peak PM



2020 Site Traffic Assignment

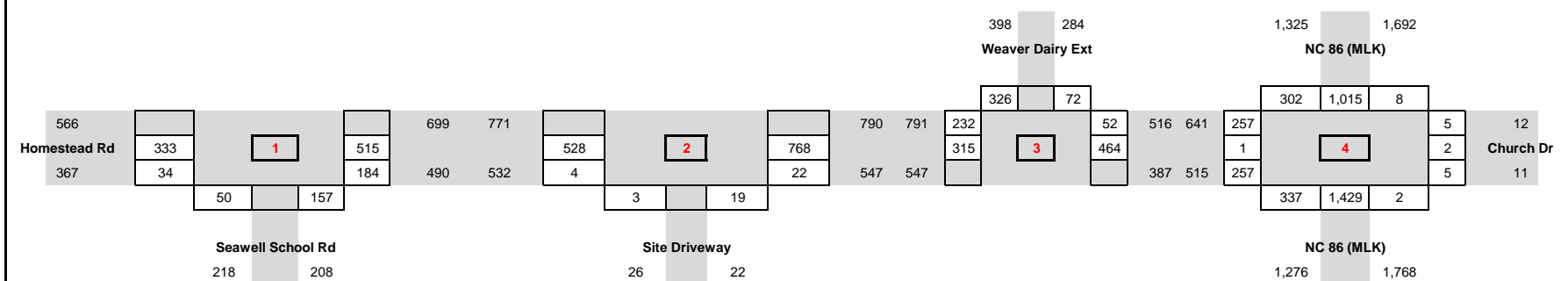
Peak PM

| | | |
|----------------|----|-----|
| | IN | OUT |
| Trip Gen | 26 | 22 |
| External Check | 27 | 22 |



2020 Traffic With Site

Peak PM



Appendix E – Synchro Signalized Capacity Analysis
Output

Lanes, Volumes, Timings
1: Seawell School Rd & Homestead Road

10/26/2017



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↻ | | ↻ | ↻ | ↻ | ↻ |
| Traffic Volume (vph) | 456 | 57 | 295 | 149 | 37 | 235 |
| Future Volume (vph) | 456 | 57 | 295 | 149 | 37 | 235 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.985 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1807 | 0 | 1710 | 1800 | 1676 | 1500 |
| Flt Permitted | | | 0.242 | | 0.950 | |
| Satd. Flow (perm) | 1807 | 0 | 436 | 1800 | 1676 | 1500 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2461 | 750 | |
| Travel Time (s) | 13.3 | | | 47.9 | 14.6 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 5% | 5% |
| Adj. Flow (vph) | 501 | 63 | 324 | 164 | 42 | 264 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 564 | 0 | 324 | 164 | 42 | 264 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

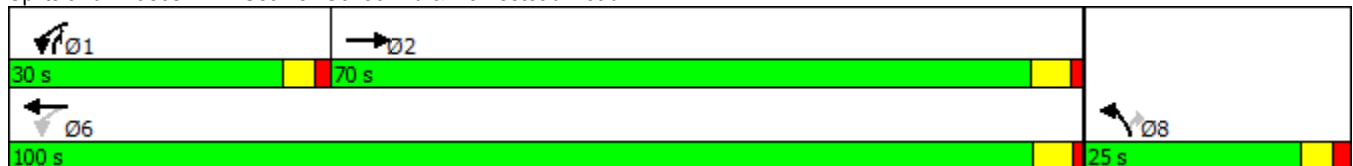


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 22.2 | | 37.5 | 40.6 | 7.9 | 15.6 |
| Actuated g/C Ratio | 0.45 | | 0.76 | 0.83 | 0.16 | 0.32 |
| v/c Ratio | 0.69 | | 0.56 | 0.11 | 0.16 | 0.55 |
| Control Delay | 17.4 | | 7.1 | 2.5 | 27.0 | 19.3 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.4 | | 7.1 | 2.5 | 27.0 | 19.3 |
| LOS | B | | A | A | C | B |
| Approach Delay | 17.4 | | | 5.6 | 20.3 | |
| Approach LOS | B | | | A | C | |
| Queue Length 50th (ft) | 132 | | 30 | 14 | 12 | 58 |
| Queue Length 95th (ft) | 295 | | 70 | 27 | 46 | 147 |
| Internal Link Dist (ft) | 604 | | | 2381 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1765 | | 1070 | 1800 | 770 | 1044 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | | 0.30 | 0.09 | 0.05 | 0.25 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 49.1 |
| Natural Cycle: | 60 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.69 |
| Intersection Signal Delay: | 13.8 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 62.1% |
| ICU Level of Service: | B |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 324 | 380 | 216 | 18 | 52 | 265 |
| Future Volume (vph) | 324 | 380 | 216 | 18 | 52 | 265 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.98 | |
| Frt | | | 0.990 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1761 | 1854 | 1684 | 0 | 1710 | 1530 |
| Flt Permitted | 0.416 | | | | 0.950 | |
| Satd. Flow (perm) | 771 | 1854 | 1684 | 0 | 1674 | 1530 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 2461 | 1371 | | 705 | |
| Travel Time (s) | | 47.9 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 7 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.89 | 0.89 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 3% | 3% | 10% | 10% | 4% | 4% |
| Adj. Flow (vph) | 360 | 422 | 243 | 20 | 59 | 301 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 360 | 422 | 263 | 0 | 59 | 301 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

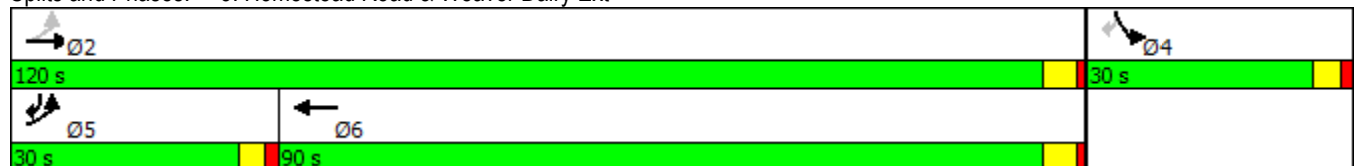


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 34.4 | 37.5 | 13.7 | | 7.5 | 21.1 |
| Actuated g/C Ratio | 0.75 | 0.82 | 0.30 | | 0.16 | 0.46 |
| v/c Ratio | 0.40 | 0.28 | 0.52 | | 0.21 | 0.43 |
| Control Delay | 4.1 | 3.2 | 20.8 | | 24.7 | 9.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 4.1 | 3.2 | 20.8 | | 24.7 | 9.6 |
| LOS | A | A | C | | C | A |
| Approach Delay | | 3.6 | 20.8 | | 12.1 | |
| Approach LOS | | A | C | | B | |
| Queue Length 50th (ft) | 33 | 40 | 66 | | 16 | 43 |
| Queue Length 95th (ft) | 63 | 75 | 152 | | 52 | 100 |
| Internal Link Dist (ft) | | 2381 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1188 | 1854 | 1684 | | 1030 | 1120 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.23 | 0.16 | | 0.06 | 0.27 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 45.9 |
| Natural Cycle: | 40 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.52 |
| Intersection Signal Delay: | 9.0 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 48.7% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 211 | 8 | 237 | 3 | 2 | 5 | 109 | 762 | 3 | 14 | 1079 | 169 |
| Future Volume (vph) | 211 | 8 | 237 | 3 | 2 | 5 | 109 | 762 | 3 | 14 | 1079 | 169 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | 0.98 | 0.99 | 1.00 | | 1.00 | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | 0.999 | | | | 0.850 |
| Flt Protected | 0.950 | 0.956 | | 0.950 | 0.993 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1715 | 1726 | 1615 | 1664 | 1740 | 1567 | 3335 | 3434 | 0 | 1727 | 3454 | 1545 |
| Flt Permitted | 0.950 | 0.956 | | 0.950 | 0.993 | | 0.950 | | | 0.273 | | |
| Satd. Flow (perm) | 1715 | 1726 | 1583 | 1653 | 1738 | 1567 | 3334 | 3434 | 0 | 496 | 3454 | 1525 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | 886 | |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | 15.1 | |
| Confl. Peds. (#/hr) | | | 6 | 6 | | | 1 | | 5 | 5 | | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.36 | 0.36 | 0.36 | 0.91 | 0.91 | 0.91 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 4% | 4% | 4% | 2% | 2% | 2% | 5% | 5% | 5% | 4% | 4% | 4% |
| Adj. Flow (vph) | 232 | 9 | 260 | 8 | 6 | 14 | 120 | 837 | 3 | 16 | 1226 | 192 |
| Shared Lane Traffic (%) | 48% | | | 14% | | | | | | | | |
| Lane Group Flow (vph) | 121 | 120 | 260 | 7 | 7 | 14 | 120 | 840 | 0 | 16 | 1226 | 192 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 44.0 | 44.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 44.0 |
| Total Split (s) | 30.0 | 30.0 | 25.0 | 20.0 | 20.0 | 15.0 | 25.0 | 85.0 | | 15.0 | 75.0 | 30.0 |
| Total Split (%) | 20.0% | 20.0% | 16.7% | 13.3% | 13.3% | 10.0% | 16.7% | 56.7% | | 10.0% | 50.0% | 20.0% |
| Maximum Green (s) | 22.9 | 22.9 | 18.7 | 13.1 | 13.1 | 8.6 | 18.7 | 79.0 | | 8.6 | 68.6 | 22.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

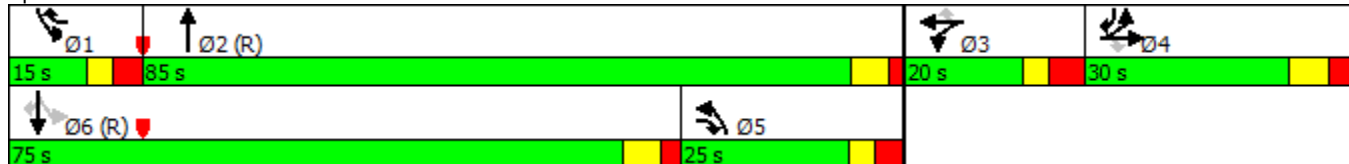


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 16.2 | 16.2 | 36.2 | 8.9 | 8.9 | 12.0 | 20.0 | 110.2 | | 93.2 | 93.2 | 109.4 |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.24 | 0.06 | 0.06 | 0.08 | 0.13 | 0.73 | | 0.62 | 0.62 | 0.73 |
| v/c Ratio | 0.65 | 0.65 | 0.67 | 0.07 | 0.07 | 0.11 | 0.27 | 0.33 | | 0.04 | 0.57 | 0.17 |
| Control Delay | 80.1 | 79.3 | 51.9 | 68.3 | 68.3 | 47.0 | 60.3 | 9.6 | | 14.8 | 19.7 | 6.1 |
| 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 | 80.1 | 79.3 | 51.9 | 68.3 | 68.3 | 47.0 | 60.3 | 9.6 | | 14.8 | 19.7 | 6.1 |
| LOS | F | E | D | E | E | D | E | A | | B | B | A |
| Approach Delay | | 65.3 | | | 57.7 | | | 16.0 | | | 17.8 | |
| Approach LOS | | E | | | E | | | B | | | B | |
| Queue Length 50th (ft) | 122 | 120 | 221 | 7 | 7 | 13 | 55 | 136 | | 5 | 313 | 37 |
| Queue Length 95th (ft) | 189 | 186 | 258 | 10 | 10 | 11 | 88 | 263 | | 19 | 513 | 86 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 285 | 287 | 386 | 166 | 174 | 141 | 444 | 2522 | | 390 | 2147 | 1162 |
| 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 | 0.42 | 0.42 | 0.67 | 0.04 | 0.04 | 0.10 | 0.27 | 0.33 | | 0.04 | 0.57 | 0.17 |

Intersection Summary

| | |
|------------------------------------|--|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 150 |
| Offset: | 30 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green |
| Natural Cycle: | 155 |
| Control Type: | Actuated-Coordinated |
| Maximum v/c Ratio: | 0.67 |
| Intersection Signal Delay: | 25.7 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 66.4% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
1: Seawell School Rd & Homestead Road

10/26/2017

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↗ | | ↖ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 235 | 19 | 68 | 222 | 17 | 53 |
| Future Volume (vph) | 235 | 19 | 68 | 222 | 17 | 53 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | | 1.00 | | | |
| Frt | 0.990 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1745 | 0 | 1694 | 1783 | 1709 | 1529 |
| Flt Permitted | | | 0.451 | | 0.950 | |
| Satd. Flow (perm) | 1745 | 0 | 804 | 1783 | 1709 | 1529 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2461 | 750 | |
| Travel Time (s) | 13.3 | | | 47.9 | 14.6 | |
| Confl. Peds. (#/hr) | | 2 | 2 | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.86 | 0.86 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 6% | 3% | 3% |
| Adj. Flow (vph) | 253 | 20 | 79 | 258 | 21 | 66 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 273 | 0 | 79 | 258 | 21 | 66 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | Lead | |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

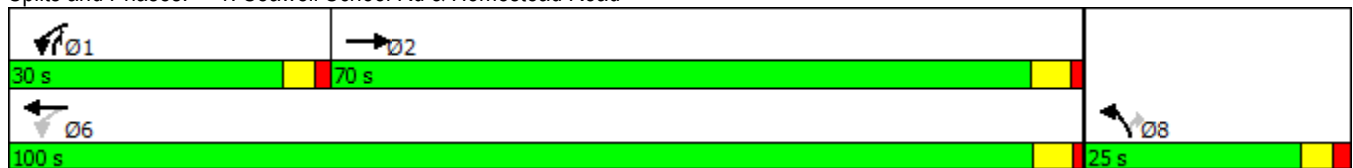


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 17.3 | | 25.6 | 30.0 | 7.1 | 8.6 |
| Actuated g/C Ratio | 0.53 | | 0.79 | 0.92 | 0.22 | 0.26 |
| v/c Ratio | 0.29 | | 0.10 | 0.16 | 0.06 | 0.16 |
| Control Delay | 8.7 | | 2.1 | 1.8 | 12.5 | 9.3 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.7 | | 2.1 | 1.8 | 12.5 | 9.3 |
| LOS | A | | A | A | B | A |
| Approach Delay | 8.7 | | | 1.8 | 10.1 | |
| Approach LOS | A | | | A | B | |
| Queue Length 50th (ft) | 24 | | 0 | 0 | 2 | 7 |
| Queue Length 95th (ft) | 101 | | 16 | 43 | 16 | 21 |
| Internal Link Dist (ft) | 604 | | | 2381 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1745 | | 1416 | 1783 | 1077 | 1341 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | | 0.06 | 0.14 | 0.02 | 0.05 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 32.6 |
| Natural Cycle: | 40 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.29 |
| Intersection Signal Delay: | 5.5 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 37.7% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 109 | 179 | 193 | 18 | 18 | 131 |
| Future Volume (vph) | 109 | 179 | 193 | 18 | 18 | 131 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.99 | |
| Frt | | | 0.988 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1695 | 1785 | 1728 | 0 | 1743 | 1560 |
| Flt Permitted | 0.426 | | | | 0.950 | |
| Satd. Flow (perm) | 760 | 1785 | 1728 | 0 | 1722 | 1560 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 2461 | 1371 | | 705 | |
| Travel Time (s) | | 47.9 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.79 | 0.79 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 7% | 2% | 2% |
| Adj. Flow (vph) | 121 | 199 | 244 | 23 | 20 | 147 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 121 | 199 | 267 | 0 | 20 | 147 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

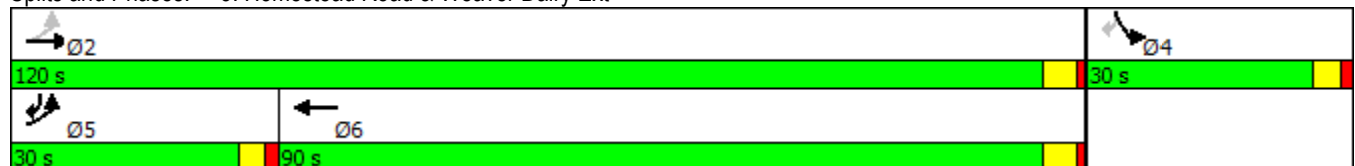


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 25.5 | 30.0 | 12.7 | | 6.8 | 9.2 |
| Actuated g/C Ratio | 0.79 | 0.93 | 0.39 | | 0.21 | 0.28 |
| v/c Ratio | 0.15 | 0.12 | 0.39 | | 0.05 | 0.33 |
| Control Delay | 2.1 | 1.5 | 10.7 | | 13.8 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 2.1 | 1.5 | 10.7 | | 13.8 | 10.5 |
| LOS | A | A | B | | B | B |
| Approach Delay | | 1.7 | 10.7 | | 10.9 | |
| Approach LOS | | A | B | | B | |
| Queue Length 50th (ft) | 0 | 0 | 24 | | 2 | 17 |
| Queue Length 95th (ft) | 22 | 34 | 91 | | 18 | 46 |
| Internal Link Dist (ft) | | 2381 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1438 | 1785 | 1728 | | 1457 | 1383 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.08 | 0.11 | 0.15 | | 0.01 | 0.11 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 32.3 |
| Natural Cycle: | 40 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.39 |
| Intersection Signal Delay: | 6.9 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 35.6% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 108 | 5 | 157 | 11 | 5 | 24 | 115 | 696 | 2 | 13 | 620 | 117 |
| Future Volume (vph) | 108 | 5 | 157 | 11 | 5 | 24 | 115 | 696 | 2 | 13 | 620 | 117 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.98 | 0.99 | 1.00 | 0.98 | 1.00 | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.957 | | 0.950 | 0.982 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1698 | 1711 | 1600 | 1664 | 1720 | 1567 | 3335 | 3438 | 0 | 1727 | 3454 | 1545 |
| Flt Permitted | 0.950 | 0.957 | | 0.950 | 0.982 | | 0.950 | | | 0.307 | | |
| Satd. Flow (perm) | 1691 | 1704 | 1567 | 1651 | 1716 | 1542 | 3332 | 3438 | 0 | 558 | 3454 | 1524 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | 886 | |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | 15.1 | |
| Confl. Peds. (#/hr) | 4 | | 6 | 6 | | 4 | 1 | | 4 | 4 | | 1 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.37 | 0.37 | 0.37 | 0.90 | 0.90 | 0.90 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 5% | 5% | 5% | 4% | 4% | 4% |
| Adj. Flow (vph) | 123 | 6 | 178 | 30 | 14 | 65 | 128 | 773 | 2 | 14 | 660 | 124 |
| Shared Lane Traffic (%) | 48% | | | 28% | | | | | | | | |
| Lane Group Flow (vph) | 64 | 65 | 178 | 22 | 22 | 65 | 128 | 775 | 0 | 14 | 660 | 124 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 44.0 | 44.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 44.0 |
| Total Split (s) | 42.0 | 42.0 | 20.0 | 50.0 | 50.0 | 15.0 | 20.0 | 53.0 | | 15.0 | 48.0 | 42.0 |
| Total Split (%) | 26.3% | 26.3% | 12.5% | 31.3% | 31.3% | 9.4% | 12.5% | 33.1% | | 9.4% | 30.0% | 26.3% |
| Maximum Green (s) | 34.9 | 34.9 | 13.7 | 43.1 | 43.1 | 8.6 | 13.7 | 47.0 | | 8.6 | 41.6 | 34.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
 4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

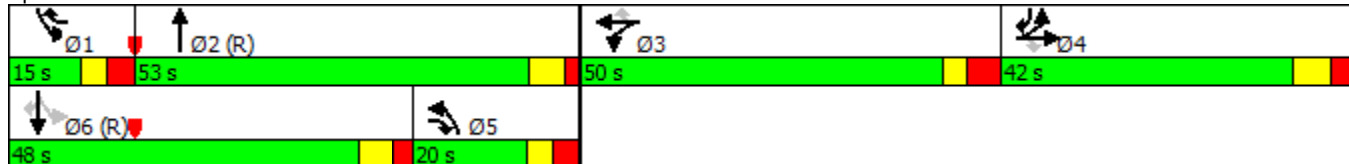


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|-------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 12.1 | 12.1 | 27.1 | 9.5 | 9.5 | 16.2 | 15.0 | 115.4 | | 106.1 | 106.1 | 118.2 |
| Actuated g/C Ratio | 0.08 | 0.08 | 0.17 | 0.06 | 0.06 | 0.10 | 0.09 | 0.72 | | 0.66 | 0.66 | 0.74 |
| v/c Ratio | 0.50 | 0.50 | 0.66 | 0.22 | 0.22 | 0.41 | 0.41 | 0.31 | | 0.03 | 0.29 | 0.11 |
| Control Delay | 83.7 | 83.8 | 61.5 | 76.9 | 76.5 | 57.0 | 72.7 | 9.8 | | 11.4 | 12.4 | 5.5 |
| 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 | 83.7 | 83.8 | 61.5 | 76.9 | 76.5 | 57.0 | 72.7 | 9.8 | | 11.4 | 12.4 | 5.5 |
| LOS | F | F | E | E | E | E | E | A | | B | B | A |
| Approach Delay | | 70.8 | | | 64.9 | | | 18.7 | | | 11.3 | |
| Approach LOS | | E | | | E | | | B | | | B | |
| Queue Length 50th (ft) | 69 | 70 | 151 | 23 | 23 | 54 | 66 | 157 | | 5 | 147 | 31 |
| Queue Length 95th (ft) | 120 | 122 | 207 | 23 | 23 | 36 | 102 | 220 | | 16 | 206 | 53 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 392 | 395 | 268 | 468 | 483 | 172 | 312 | 2479 | | 443 | 2290 | 1178 |
| 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 | 0.16 | 0.66 | 0.05 | 0.05 | 0.38 | 0.41 | 0.31 | | 0.03 | 0.29 | 0.11 |

Intersection Summary

| | |
|------------------------------------|--|
| Area Type: | Other |
| Cycle Length: | 160 |
| Actuated Cycle Length: | 160 |
| Offset: | 40 (25%), Referenced to phase 2:NBT and 6:SBTL, Start of Green |
| Natural Cycle: | 155 |
| Control Type: | Actuated-Coordinated |
| Maximum v/c Ratio: | 0.66 |
| Intersection Signal Delay: | 25.9 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 64.9% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↗ | | ↖ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 304 | 33 | 161 | 469 | 49 | 135 |
| Future Volume (vph) | 304 | 33 | 161 | 469 | 49 | 135 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fr _t | 0.987 | | | | | 0.850 |
| Fl _t Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1776 | 0 | 1761 | 1853 | 1725 | 1544 |
| Fl _t Permitted | | | 0.371 | | 0.950 | |
| Satd. Flow (perm) | 1776 | 0 | 688 | 1853 | 1725 | 1544 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2461 | 750 | |
| Travel Time (s) | 13.3 | | | 47.9 | 14.6 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.57 | 0.57 |
| Heavy Vehicles (%) | 4% | 4% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 320 | 35 | 168 | 489 | 86 | 237 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 355 | 0 | 168 | 489 | 86 | 237 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

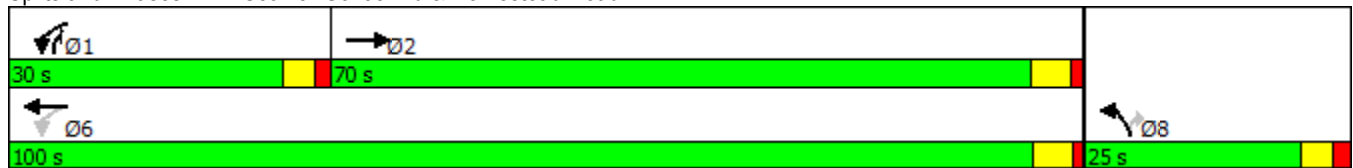


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 14.4 | | 26.9 | 29.7 | 7.6 | 13.4 |
| Actuated g/C Ratio | 0.37 | | 0.70 | 0.77 | 0.20 | 0.35 |
| v/c Ratio | 0.53 | | 0.25 | 0.34 | 0.25 | 0.44 |
| Control Delay | 14.1 | | 4.3 | 4.4 | 18.9 | 12.6 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.1 | | 4.3 | 4.4 | 18.9 | 12.6 |
| LOS | B | | A | A | B | B |
| Approach Delay | 14.1 | | | 4.4 | 14.3 | |
| Approach LOS | B | | | A | B | |
| Queue Length 50th (ft) | 69 | | 14 | 50 | 18 | 35 |
| Queue Length 95th (ft) | 138 | | 33 | 102 | 33 | 52 |
| Internal Link Dist (ft) | 604 | | | 2381 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1776 | | 1248 | 1853 | 955 | 1321 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.20 | | 0.13 | 0.26 | 0.09 | 0.18 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 38.5 |
| Natural Cycle: | 40 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.53 |
| Intersection Signal Delay: | 9.4 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 45.3% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 211 | 255 | 341 | 39 | 36 | 310 |
| Future Volume (vph) | 211 | 255 | 341 | 39 | 36 | 310 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.96 | |
| Frt | | | 0.986 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1761 | 1854 | 1809 | 0 | 1743 | 1560 |
| Flt Permitted | 0.319 | | | | 0.950 | |
| Satd. Flow (perm) | 591 | 1854 | 1809 | 0 | 1675 | 1560 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 2461 | 1371 | | 705 | |
| Travel Time (s) | | 47.9 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 13 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.95 | 0.95 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 3% | 3% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 254 | 307 | 359 | 41 | 38 | 330 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 254 | 307 | 400 | 0 | 38 | 330 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

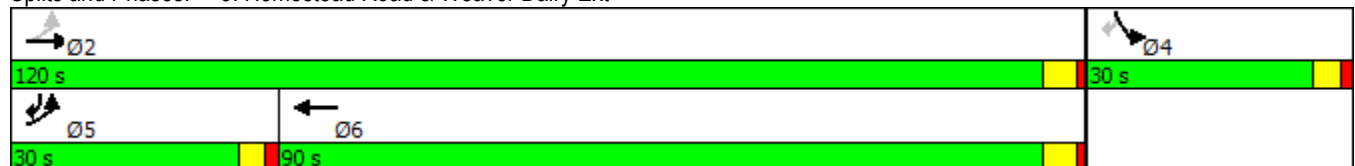


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 35.0 | 39.0 | 16.4 | | 7.4 | 16.6 |
| Actuated g/C Ratio | 0.80 | 0.89 | 0.37 | | 0.17 | 0.38 |
| v/c Ratio | 0.31 | 0.19 | 0.59 | | 0.13 | 0.56 |
| Control Delay | 2.9 | 2.0 | 17.2 | | 23.6 | 14.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 2.9 | 2.0 | 17.2 | | 23.6 | 14.9 |
| LOS | A | A | B | | C | B |
| Approach Delay | | 2.4 | 17.2 | | 15.8 | |
| Approach LOS | | A | B | | B | |
| Queue Length 50th (ft) | 0 | 0 | 57 | | 7 | 56 |
| Queue Length 95th (ft) | 37 | 44 | 210 | | 40 | 149 |
| Internal Link Dist (ft) | | 2381 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1209 | 1854 | 1809 | | 1094 | 1103 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.21 | 0.17 | 0.22 | | 0.03 | 0.30 |

Intersection Summary

























| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 44 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.59 |
| Intersection Signal Delay: | 10.6 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 50.3% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 196 | 1 | 185 | 5 | 2 | 5 | 265 | 1309 | 2 | 8 | 917 | 235 |
| Future Volume (vph) | 196 | 1 | 185 | 5 | 2 | 5 | 265 | 1309 | 2 | 8 | 917 | 235 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.97 | 0.98 | 0.99 | 0.98 | 1.00 | 1.00 | | | | 0.98 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.953 | | 0.950 | 0.976 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1748 | 1754 | 1647 | 1664 | 1710 | 1567 | 3400 | 3504 | 0 | 1761 | 3522 | 1575 |
| Flt Permitted | 0.950 | 0.953 | | 0.950 | 0.976 | | 0.950 | | | 0.128 | | |
| Satd. Flow (perm) | 1742 | 1747 | 1599 | 1639 | 1697 | 1543 | 3396 | 3504 | 0 | 237 | 3522 | 1552 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | 2 | | 16 | 16 | | 2 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.65 | 0.65 | 0.65 | 0.91 | 0.91 | 0.91 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% |
| Adj. Flow (vph) | 209 | 1 | 197 | 8 | 3 | 8 | 291 | 1438 | 2 | 9 | 997 | 255 |
| Shared Lane Traffic (%) | 50% | | | 32% | | | | | | | | |
| Lane Group Flow (vph) | 104 | 106 | 197 | 5 | 6 | 8 | 291 | 1440 | 0 | 9 | 997 | 255 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 42.0 | 42.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 42.0 |
| Total Split (s) | 41.0 | 41.0 | 25.0 | 50.0 | 50.0 | 15.0 | 25.0 | 74.0 | | 15.0 | 64.0 | 41.0 |
| Total Split (%) | 22.8% | 22.8% | 13.9% | 27.8% | 27.8% | 8.3% | 13.9% | 41.1% | | 8.3% | 35.6% | 22.8% |
| Maximum Green (s) | 33.9 | 33.9 | 18.7 | 43.1 | 43.1 | 8.6 | 18.7 | 68.0 | | 8.6 | 57.6 | 33.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

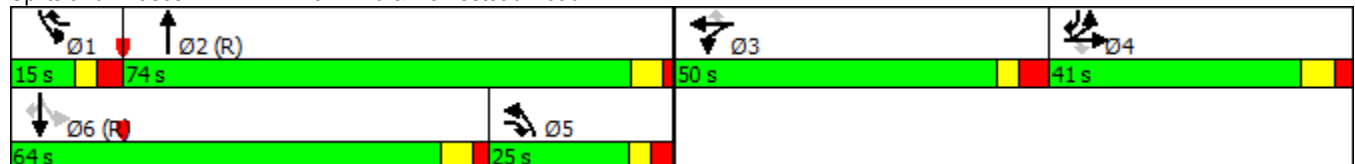
10/26/2017

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|-------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 16.5 | 16.5 | 36.5 | 8.9 | 8.9 | 12.0 | 20.0 | 139.9 | | 122.9 | 122.9 | 139.4 |
| Actuated g/C Ratio | 0.09 | 0.09 | 0.20 | 0.05 | 0.05 | 0.07 | 0.11 | 0.78 | | 0.68 | 0.68 | 0.77 |
| v/c Ratio | 0.65 | 0.66 | 0.60 | 0.06 | 0.07 | 0.08 | 0.77 | 0.53 | | 0.04 | 0.41 | 0.21 |
| Control Delay | 96.8 | 97.4 | 63.3 | 83.3 | 83.8 | 58.6 | 92.1 | 10.7 | | 12.8 | 14.5 | 5.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 96.8 | 97.4 | 63.3 | 83.3 | 83.8 | 58.6 | 92.1 | 10.7 | | 12.8 | 14.5 | 5.3 |
| LOS | F | F | E | F | F | E | F | B | | B | B | A |
| Approach Delay | | 80.7 | | | 73.1 | | | 24.4 | | | 12.6 | |
| Approach LOS | | F | | | E | | | C | | | B | |
| Queue Length 50th (ft) | 127 | 129 | 206 | 6 | 7 | 9 | 175 | 303 | | 3 | 231 | 51 |
| Queue Length 95th (ft) | 195 | 200 | 252 | 16 | 20 | 17 | 231 | 545 | | 13 | 386 | 112 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 349 | 350 | 329 | 416 | 427 | 117 | 377 | 2722 | | 246 | 2404 | 1249 |
| 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 | 0.30 | 0.30 | 0.60 | 0.01 | 0.01 | 0.07 | 0.77 | 0.53 | | 0.04 | 0.41 | 0.20 |

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 16 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 155
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 27.0
 Intersection Capacity Utilization 71.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
1: Seawell School Rd & Homestead Road

10/26/2017



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 489 | 59 | 314 | 161 | 38 | 254 |
| Future Volume (vph) | 489 | 59 | 314 | 161 | 38 | 254 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.985 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1807 | 0 | 1710 | 1800 | 1676 | 1500 |
| Flt Permitted | | | 0.220 | | 0.950 | |
| Satd. Flow (perm) | 1807 | 0 | 396 | 1800 | 1676 | 1500 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2461 | 750 | |
| Travel Time (s) | 13.3 | | | 47.9 | 14.6 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 5% | 5% |
| Adj. Flow (vph) | 537 | 65 | 345 | 177 | 43 | 285 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 602 | 0 | 345 | 177 | 43 | 285 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

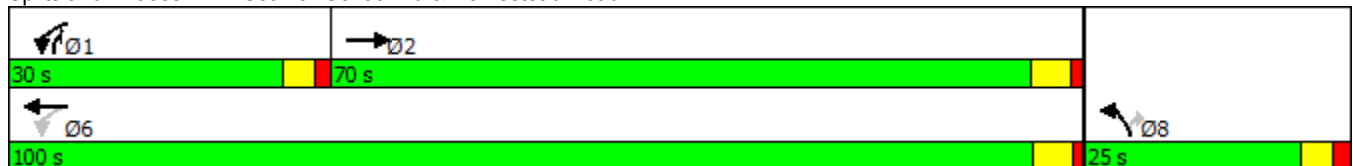


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 24.6 | | 41.6 | 44.8 | 8.0 | 17.2 |
| Actuated g/C Ratio | 0.46 | | 0.78 | 0.84 | 0.15 | 0.32 |
| v/c Ratio | 0.72 | | 0.59 | 0.12 | 0.17 | 0.59 |
| Control Delay | 19.0 | | 8.8 | 2.3 | 30.2 | 21.1 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.0 | | 8.8 | 2.3 | 30.2 | 21.1 |
| LOS | B | | A | A | C | C |
| Approach Delay | 19.0 | | | 6.6 | 22.3 | |
| Approach LOS | B | | | A | C | |
| Queue Length 50th (ft) | 156 | | 33 | 15 | 13 | 68 |
| Queue Length 95th (ft) | 354 | | 100 | 29 | 51 | 174 |
| Internal Link Dist (ft) | 604 | | | 2381 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1731 | | 1013 | 1800 | 718 | 973 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.35 | | 0.34 | 0.10 | 0.06 | 0.29 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 53.3 |
| Natural Cycle: | 60 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.72 |
| Intersection Signal Delay: | 15.3 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 65.0% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 340 | 444 | 261 | 21 | 70 | 274 |
| Future Volume (vph) | 340 | 444 | 261 | 21 | 70 | 274 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.98 | |
| Frt | | | 0.990 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1761 | 1854 | 1684 | 0 | 1710 | 1530 |
| Flt Permitted | 0.348 | | | | 0.950 | |
| Satd. Flow (perm) | 645 | 1854 | 1684 | 0 | 1674 | 1530 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 2461 | 1371 | | 705 | |
| Travel Time (s) | | 47.9 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 7 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.89 | 0.89 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 3% | 3% | 10% | 10% | 4% | 4% |
| Adj. Flow (vph) | 378 | 493 | 293 | 24 | 80 | 311 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 378 | 493 | 317 | 0 | 80 | 311 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

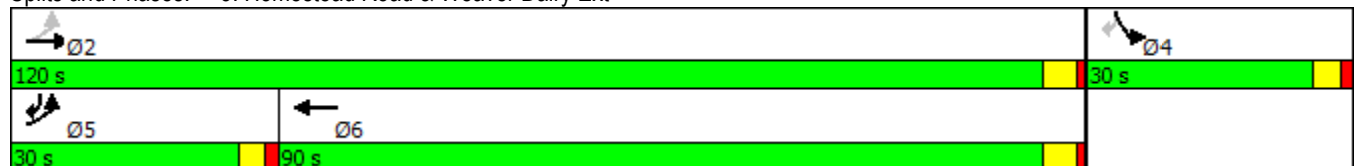


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 38.1 | 39.9 | 15.6 | | 7.8 | 26.3 |
| Actuated g/C Ratio | 0.72 | 0.76 | 0.30 | | 0.15 | 0.50 |
| v/c Ratio | 0.46 | 0.35 | 0.64 | | 0.32 | 0.41 |
| Control Delay | 5.1 | 4.2 | 24.9 | | 28.8 | 10.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 5.1 | 4.2 | 24.9 | | 28.8 | 10.1 |
| LOS | A | A | C | | C | B |
| Approach Delay | | 4.6 | 24.9 | | 13.9 | |
| Approach LOS | | A | C | | B | |
| Queue Length 50th (ft) | 36 | 50 | 88 | | 24 | 51 |
| Queue Length 95th (ft) | 74 | 100 | 195 | | 70 | 119 |
| Internal Link Dist (ft) | | 2381 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1041 | 1854 | 1684 | | 881 | 1055 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.27 | 0.19 | | 0.09 | 0.29 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 52.8 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.64 |
| Intersection Signal Delay: | 11.0 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 52.2% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 255 | 8 | 284 | 3 | 2 | 5 | 152 | 827 | 3 | 14 | 1163 | 211 |
| Future Volume (vph) | 255 | 8 | 284 | 3 | 2 | 5 | 152 | 827 | 3 | 14 | 1163 | 211 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | 0.98 | 0.99 | 1.00 | | 1.00 | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.955 | | 0.950 | 0.993 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1715 | 1724 | 1615 | 1664 | 1740 | 1567 | 3335 | 3438 | 0 | 1727 | 3454 | 1545 |
| Flt Permitted | 0.950 | 0.955 | | 0.950 | 0.993 | | 0.950 | | | 0.242 | | |
| Satd. Flow (perm) | 1715 | 1724 | 1583 | 1653 | 1738 | 1567 | 3334 | 3438 | 0 | 440 | 3454 | 1525 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | | | 6 | 6 | | | 1 | | 5 | 5 | | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.36 | 0.36 | 0.36 | 0.91 | 0.91 | 0.91 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 4% | 4% | 4% | 2% | 2% | 2% | 5% | 5% | 5% | 4% | 4% | 4% |
| Adj. Flow (vph) | 280 | 9 | 312 | 8 | 6 | 14 | 167 | 909 | 3 | 16 | 1322 | 240 |
| Shared Lane Traffic (%) | 48% | | | 14% | | | | | | | | |
| Lane Group Flow (vph) | 146 | 143 | 312 | 7 | 7 | 14 | 167 | 912 | 0 | 16 | 1322 | 240 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 44.0 | 44.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 44.0 |
| Total Split (s) | 30.0 | 30.0 | 25.0 | 20.0 | 20.0 | 15.0 | 25.0 | 85.0 | | 15.0 | 75.0 | 30.0 |
| Total Split (%) | 20.0% | 20.0% | 16.7% | 13.3% | 13.3% | 10.0% | 16.7% | 56.7% | | 10.0% | 50.0% | 20.0% |
| Maximum Green (s) | 22.9 | 22.9 | 18.7 | 13.1 | 13.1 | 8.6 | 18.7 | 79.0 | | 8.6 | 68.6 | 22.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
 4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

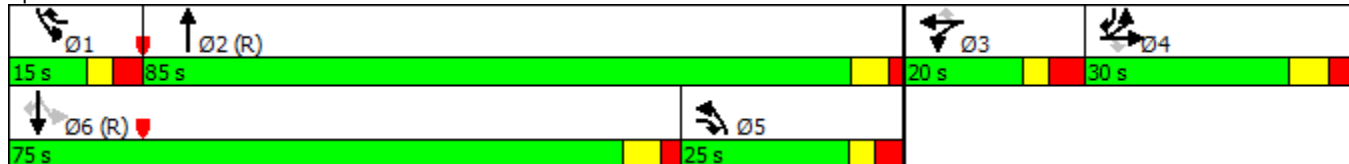


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 18.4 | 18.4 | 38.4 | 8.9 | 8.9 | 12.0 | 20.0 | 108.0 | | 91.1 | 91.1 | 109.4 |
| Actuated g/C Ratio | 0.12 | 0.12 | 0.26 | 0.06 | 0.06 | 0.08 | 0.13 | 0.72 | | 0.61 | 0.61 | 0.73 |
| v/c Ratio | 0.70 | 0.68 | 0.76 | 0.07 | 0.07 | 0.11 | 0.38 | 0.37 | | 0.05 | 0.63 | 0.22 |
| Control Delay | 79.8 | 78.3 | 56.7 | 68.3 | 68.3 | 46.0 | 62.1 | 10.9 | | 15.9 | 22.4 | 6.4 |
| 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 | 79.8 | 78.3 | 56.7 | 68.3 | 68.3 | 46.0 | 62.1 | 10.9 | | 15.9 | 22.4 | 6.4 |
| LOS | E | E | E | E | E | D | E | B | | B | C | A |
| Approach Delay | | 67.5 | | | 57.2 | | | 18.8 | | | 19.9 | |
| Approach LOS | | E | | | E | | | B | | | B | |
| Queue Length 50th (ft) | 146 | 143 | 270 | 7 | 7 | 13 | 77 | 162 | | 5 | 371 | 47 |
| Queue Length 95th (ft) | 218 | 213 | 305 | 10 | 10 | 10 | 117 | 306 | | 20 | 597 | 107 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 285 | 287 | 409 | 166 | 174 | 141 | 444 | 2475 | | 353 | 2096 | 1154 |
| 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 | 0.51 | 0.50 | 0.76 | 0.04 | 0.04 | 0.10 | 0.38 | 0.37 | | 0.05 | 0.63 | 0.21 |

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 30 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 155
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 28.6
 Intersection LOS: C
 Intersection Capacity Utilization 69.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
1: Seawell School Rd & Homestead Road

10/26/2017

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↗ | | ↘ | ↖ | ↘ | ↗ |
| Traffic Volume (vph) | 270 | 20 | 86 | 263 | 18 | 68 |
| Future Volume (vph) | 270 | 20 | 86 | 263 | 18 | 68 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | | 1.00 | | | |
| Frt | 0.990 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1745 | 0 | 1694 | 1783 | 1709 | 1529 |
| Flt Permitted | | | 0.431 | | 0.950 | |
| Satd. Flow (perm) | 1745 | 0 | 768 | 1783 | 1709 | 1529 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2461 | 750 | |
| Travel Time (s) | 13.3 | | | 47.9 | 14.6 | |
| Confl. Peds. (#/hr) | | 2 | 2 | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.86 | 0.86 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 6% | 3% | 3% |
| Adj. Flow (vph) | 290 | 22 | 100 | 306 | 23 | 85 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 312 | 0 | 100 | 306 | 23 | 85 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

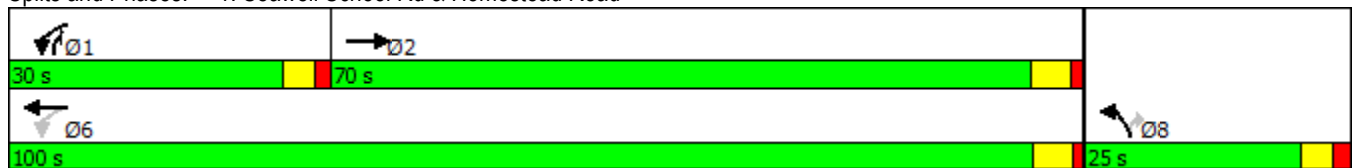


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 16.7 | | 25.1 | 29.6 | 7.1 | 8.5 |
| Actuated g/C Ratio | 0.52 | | 0.78 | 0.92 | 0.22 | 0.27 |
| v/c Ratio | 0.34 | | 0.13 | 0.19 | 0.06 | 0.21 |
| Control Delay | 9.0 | | 2.1 | 1.8 | 13.1 | 10.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.0 | | 2.1 | 1.8 | 13.1 | 10.0 |
| LOS | A | | A | A | B | B |
| Approach Delay | 9.0 | | | 1.9 | 10.7 | |
| Approach LOS | A | | | A | B | |
| Queue Length 50th (ft) | 28 | | 0 | 0 | 2 | 9 |
| Queue Length 95th (ft) | 115 | | 19 | 51 | 17 | 28 |
| Internal Link Dist (ft) | 604 | | | 2381 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1745 | | 1432 | 1783 | 1103 | 1367 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | | 0.07 | 0.17 | 0.02 | 0.06 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 32 |
| Natural Cycle: | 40 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.34 |
| Intersection Signal Delay: | 5.7 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 39.6% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 122 | 225 | 271 | 31 | 57 | 136 |
| Future Volume (vph) | 122 | 225 | 271 | 31 | 57 | 136 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.99 | |
| Frt | | | 0.986 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1695 | 1785 | 1725 | 0 | 1743 | 1560 |
| Flt Permitted | 0.347 | | | | 0.950 | |
| Satd. Flow (perm) | 619 | 1785 | 1725 | 0 | 1722 | 1560 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 2461 | 1371 | | 705 | |
| Travel Time (s) | | 47.9 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.79 | 0.79 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 7% | 2% | 2% |
| Adj. Flow (vph) | 136 | 250 | 343 | 39 | 64 | 153 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 136 | 250 | 382 | 0 | 64 | 153 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017

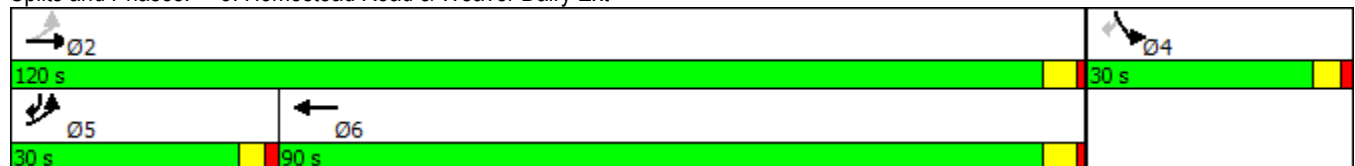


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 29.9 | 32.8 | 15.6 | | 7.4 | 14.9 |
| Actuated g/C Ratio | 0.72 | 0.79 | 0.38 | | 0.18 | 0.36 |
| v/c Ratio | 0.20 | 0.18 | 0.59 | | 0.20 | 0.27 |
| Control Delay | 3.7 | 3.2 | 16.4 | | 21.0 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 3.7 | 3.2 | 16.4 | | 21.0 | 10.5 |
| LOS | A | A | B | | C | B |
| Approach Delay | | 3.4 | 16.4 | | 13.6 | |
| Approach LOS | | A | B | | B | |
| Queue Length 50th (ft) | 11 | 21 | 81 | | 15 | 22 |
| Queue Length 95th (ft) | 26 | 45 | 146 | | 49 | 61 |
| Internal Link Dist (ft) | | 2381 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1168 | 1785 | 1725 | | 1144 | 1253 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.14 | 0.22 | | 0.06 | 0.12 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 41.4 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.59 |
| Intersection Signal Delay: | 10.7 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 41.2% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 168 | 5 | 222 | 11 | 5 | 25 | 169 | 781 | 2 | 13 | 705 | 170 |
| Future Volume (vph) | 168 | 5 | 222 | 11 | 5 | 25 | 169 | 781 | 2 | 13 | 705 | 170 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.98 | 0.99 | 1.00 | 0.98 | 1.00 | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.955 | | 0.950 | 0.982 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1698 | 1707 | 1600 | 1664 | 1720 | 1567 | 3335 | 3438 | 0 | 1727 | 3454 | 1545 |
| Flt Permitted | 0.950 | 0.955 | | 0.950 | 0.982 | | 0.950 | | | 0.265 | | |
| Satd. Flow (perm) | 1691 | 1700 | 1567 | 1652 | 1716 | 1542 | 3333 | 3438 | 0 | 482 | 3454 | 1524 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | 4 | | 6 | 6 | | 4 | 1 | | 4 | 4 | | 1 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.37 | 0.37 | 0.37 | 0.90 | 0.90 | 0.90 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 5% | 5% | 5% | 4% | 4% | 4% |
| Adj. Flow (vph) | 191 | 6 | 252 | 30 | 14 | 68 | 188 | 868 | 2 | 14 | 750 | 181 |
| Shared Lane Traffic (%) | 49% | | | 28% | | | | | | | | |
| Lane Group Flow (vph) | 97 | 100 | 252 | 22 | 22 | 68 | 188 | 870 | 0 | 14 | 750 | 181 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 44.0 | 44.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 44.0 |
| Total Split (s) | 42.0 | 42.0 | 20.0 | 50.0 | 50.0 | 15.0 | 20.0 | 53.0 | | 15.0 | 48.0 | 42.0 |
| Total Split (%) | 26.3% | 26.3% | 12.5% | 31.3% | 31.3% | 9.4% | 12.5% | 33.1% | | 9.4% | 30.0% | 26.3% |
| Maximum Green (s) | 34.9 | 34.9 | 13.7 | 43.1 | 43.1 | 8.6 | 13.7 | 47.0 | | 8.6 | 41.6 | 34.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
 4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

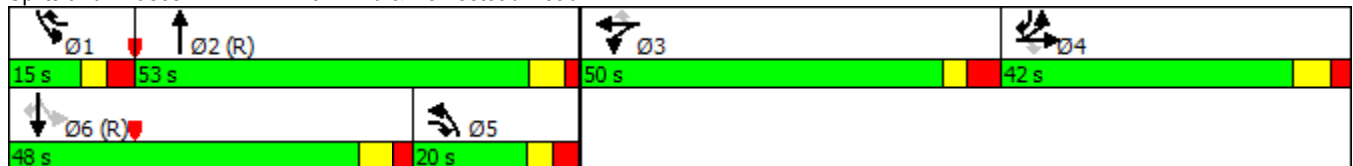


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|-------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 15.0 | 15.0 | 30.0 | 9.5 | 9.5 | 16.2 | 15.0 | 109.8 | | 103.2 | 103.2 | 118.2 |
| Actuated g/C Ratio | 0.09 | 0.09 | 0.19 | 0.06 | 0.06 | 0.10 | 0.09 | 0.69 | | 0.64 | 0.64 | 0.74 |
| v/c Ratio | 0.61 | 0.62 | 0.85 | 0.22 | 0.22 | 0.43 | 0.60 | 0.37 | | 0.04 | 0.34 | 0.16 |
| Control Delay | 85.0 | 85.9 | 77.5 | 76.9 | 76.5 | 55.7 | 78.4 | 12.1 | | 13.0 | 14.5 | 5.8 |
| 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 | 85.0 | 85.9 | 77.5 | 76.9 | 76.5 | 55.7 | 78.4 | 12.1 | | 13.0 | 14.5 | 5.8 |
| LOS | F | F | E | E | E | E | E | B | | B | B | A |
| Approach Delay | | 81.0 | | | 63.9 | | | 23.9 | | | 12.8 | |
| Approach LOS | | F | | | E | | | C | | | B | |
| Queue Length 50th (ft) | 104 | 108 | 218 | 23 | 23 | 55 | 98 | 197 | | 5 | 185 | 47 |
| Queue Length 95th (ft) | 164 | 168 | 281 | 23 | 23 | 36 | 143 | 276 | | 17 | 258 | 76 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 392 | 394 | 297 | 468 | 483 | 172 | 312 | 2359 | | 388 | 2227 | 1178 |
| 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 | 0.25 | 0.85 | 0.05 | 0.05 | 0.40 | 0.60 | 0.37 | | 0.04 | 0.34 | 0.15 |

Intersection Summary

| | |
|------------------------------------|--|
| Area Type: | Other |
| Cycle Length: | 160 |
| Actuated Cycle Length: | 160 |
| Offset: | 40 (25%), Referenced to phase 2:NBT and 6:SBTL, Start of Green |
| Natural Cycle: | 155 |
| Control Type: | Actuated-Coordinated |
| Maximum v/c Ratio: | 0.85 |
| Intersection Signal Delay: | 31.5 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 69.0% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

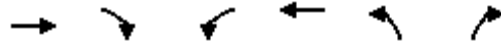
10/26/2017



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 332 | 34 | 182 | 514 | 50 | 154 |
| Future Volume (vph) | 332 | 34 | 182 | 514 | 50 | 154 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.987 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1776 | 0 | 1761 | 1853 | 1725 | 1544 |
| Flt Permitted | | | 0.338 | | 0.950 | |
| Satd. Flow (perm) | 1776 | 0 | 626 | 1853 | 1725 | 1544 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2461 | 750 | |
| Travel Time (s) | 13.3 | | | 47.9 | 14.6 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.57 | 0.57 |
| Heavy Vehicles (%) | 4% | 4% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 349 | 36 | 190 | 535 | 88 | 270 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 385 | 0 | 190 | 535 | 88 | 270 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

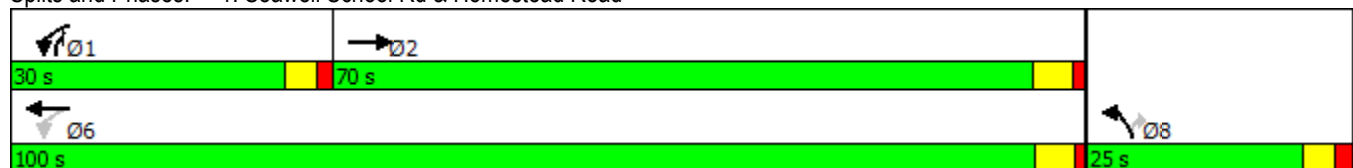


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 15.5 | | 27.9 | 29.5 | 7.7 | 16.3 |
| Actuated g/C Ratio | 0.37 | | 0.66 | 0.70 | 0.18 | 0.38 |
| v/c Ratio | 0.59 | | 0.32 | 0.41 | 0.28 | 0.45 |
| Control Delay | 16.0 | | 5.1 | 5.5 | 21.0 | 13.2 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.0 | | 5.1 | 5.5 | 21.0 | 13.2 |
| LOS | B | | A | A | C | B |
| Approach Delay | 16.0 | | | 5.4 | 15.1 | |
| Approach LOS | B | | | A | B | |
| Queue Length 50th (ft) | 77 | | 16 | 57 | 20 | 43 |
| Queue Length 95th (ft) | 155 | | 38 | 118 | 36 | 65 |
| Internal Link Dist (ft) | 604 | | | 2381 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1776 | | 1139 | 1853 | 861 | 1298 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | | 0.17 | 0.29 | 0.10 | 0.21 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 42.4 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.59 |
| Intersection Signal Delay: | 10.5 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 48.0% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 229 | 299 | 444 | 52 | 72 | 323 |
| Future Volume (vph) | 229 | 299 | 444 | 52 | 72 | 323 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.96 | |
| Frt | | | 0.986 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1761 | 1854 | 1809 | 0 | 1743 | 1560 |
| Flt Permitted | 0.224 | | | | 0.950 | |
| Satd. Flow (perm) | 415 | 1854 | 1809 | 0 | 1675 | 1560 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 2461 | 1371 | | 705 | |
| Travel Time (s) | | 47.9 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 13 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.95 | 0.95 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 3% | 3% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 276 | 360 | 467 | 55 | 77 | 344 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 276 | 360 | 522 | 0 | 77 | 344 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

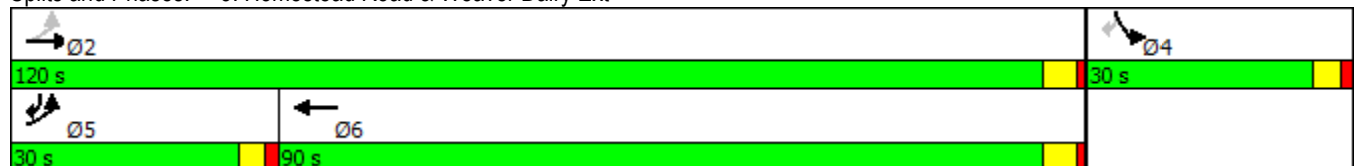


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 44.5 | 46.3 | 23.3 | | 8.3 | 25.3 |
| Actuated g/C Ratio | 0.75 | 0.78 | 0.39 | | 0.14 | 0.42 |
| v/c Ratio | 0.42 | 0.25 | 0.74 | | 0.32 | 0.52 |
| Control Delay | 4.8 | 3.4 | 24.8 | | 33.4 | 16.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 4.8 | 3.4 | 24.8 | | 33.4 | 16.4 |
| LOS | A | A | C | | C | B |
| Approach Delay | | 4.0 | 24.8 | | 19.5 | |
| Approach LOS | | A | C | | B | |
| Queue Length 50th (ft) | 25 | 34 | 157 | | 25 | 79 |
| Queue Length 95th (ft) | 50 | 65 | 346 | | 83 | 203 |
| Internal Link Dist (ft) | | 2381 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 938 | 1854 | 1795 | | 814 | 980 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.19 | 0.29 | | 0.09 | 0.35 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 59.7 |
| Natural Cycle: | 55 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.74 |
| Intersection Signal Delay: | 15.0 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 57.5% |
| ICU Level of Service: | B |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 252 | 1 | 246 | 5 | 2 | 5 | 324 | 1429 | 2 | 8 | 1015 | 295 |
| Future Volume (vph) | 252 | 1 | 246 | 5 | 2 | 5 | 324 | 1429 | 2 | 8 | 1015 | 295 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.97 | 0.99 | 0.99 | 0.98 | 1.00 | 1.00 | | | | 0.98 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.953 | | 0.950 | 0.976 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1748 | 1754 | 1647 | 1664 | 1710 | 1567 | 3400 | 3504 | 0 | 1761 | 3522 | 1575 |
| Flt Permitted | 0.950 | 0.953 | | 0.950 | 0.976 | | 0.950 | | | 0.098 | | |
| Satd. Flow (perm) | 1742 | 1747 | 1599 | 1640 | 1697 | 1543 | 3396 | 3504 | 0 | 182 | 3522 | 1552 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | 2 | | 16 | 16 | | 2 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.65 | 0.65 | 0.65 | 0.91 | 0.91 | 0.91 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% |
| Adj. Flow (vph) | 268 | 1 | 262 | 8 | 3 | 8 | 356 | 1570 | 2 | 9 | 1103 | 321 |
| Shared Lane Traffic (%) | 50% | | | 32% | | | | | | | | |
| Lane Group Flow (vph) | 134 | 135 | 262 | 5 | 6 | 8 | 356 | 1572 | 0 | 9 | 1103 | 321 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 42.0 | 42.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 42.0 |
| Total Split (s) | 41.0 | 41.0 | 25.0 | 50.0 | 50.0 | 15.0 | 25.0 | 74.0 | | 15.0 | 64.0 | 41.0 |
| Total Split (%) | 22.8% | 22.8% | 13.9% | 27.8% | 27.8% | 8.3% | 13.9% | 41.1% | | 8.3% | 35.6% | 22.8% |
| Maximum Green (s) | 33.9 | 33.9 | 18.7 | 43.1 | 43.1 | 8.6 | 18.7 | 68.0 | | 8.6 | 57.6 | 33.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|-------|-----|-------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 19.5 | 19.5 | 39.5 | 8.9 | 8.9 | 12.0 | 20.0 | 136.9 | | 119.9 | 119.9 | 139.4 |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.22 | 0.05 | 0.05 | 0.07 | 0.11 | 0.76 | | 0.67 | 0.67 | 0.77 |
| v/c Ratio | 0.71 | 0.71 | 0.74 | 0.06 | 0.07 | 0.08 | 0.94 | 0.59 | | 0.05 | 0.47 | 0.27 |
| Control Delay | 96.7 | 96.9 | 70.4 | 83.3 | 83.8 | 57.0 | 112.1 | 13.1 | | 14.2 | 16.8 | 5.7 |
| 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 | 96.7 | 96.9 | 70.4 | 83.3 | 83.8 | 57.0 | 112.1 | 13.1 | | 14.2 | 16.8 | 5.7 |
| LOS | F | F | E | F | F | E | F | B | | B | B | A |
| Approach Delay | | 83.8 | | | 72.4 | | | 31.4 | | | 14.3 | |
| Approach LOS | | F | | | E | | | C | | | B | |
| Queue Length 50th (ft) | 164 | 165 | 280 | 6 | 7 | 9 | 219 | 384 | | 3 | 284 | 67 |
| Queue Length 95th (ft) | 240 | 241 | 327 | 16 | 20 | 16 | #324 | 679 | | 14 | 468 | 145 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 349 | 350 | 356 | 416 | 427 | 117 | 377 | 2664 | | 208 | 2346 | 1249 |
| 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 | 0.38 | 0.39 | 0.74 | 0.01 | 0.01 | 0.07 | 0.94 | 0.59 | | 0.04 | 0.47 | 0.26 |

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 16 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 155

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 32.4

Intersection LOS: C

Intersection Capacity Utilization 76.1%

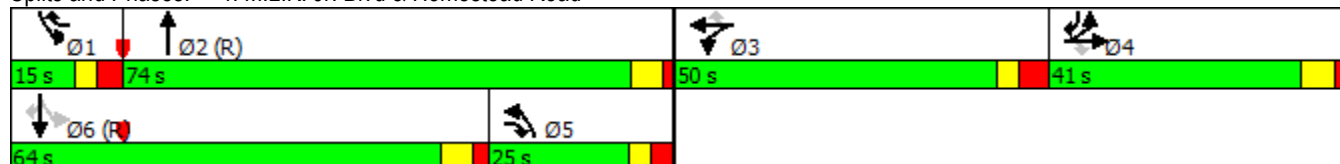
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
1: Seawell School Rd & Homestead Road

10/26/2017



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 490 | 59 | 316 | 163 | 38 | 255 |
| Future Volume (vph) | 490 | 59 | 316 | 163 | 38 | 255 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.985 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1807 | 0 | 1710 | 1800 | 1676 | 1500 |
| Flt Permitted | | | 0.220 | | 0.950 | |
| Satd. Flow (perm) | 1807 | 0 | 396 | 1800 | 1676 | 1500 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2081 | 750 | |
| Travel Time (s) | 13.3 | | | 40.5 | 14.6 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 2% | 2% | 5% | 5% | 5% | 5% |
| Adj. Flow (vph) | 538 | 65 | 347 | 179 | 43 | 287 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 603 | 0 | 347 | 179 | 43 | 287 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

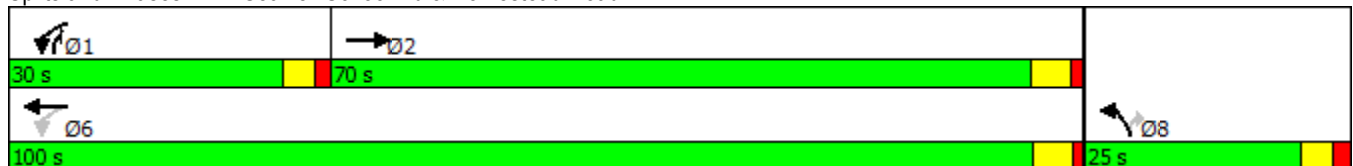


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 24.8 | | 41.8 | 45.1 | 8.1 | 17.4 |
| Actuated g/C Ratio | 0.46 | | 0.78 | 0.84 | 0.15 | 0.32 |
| v/c Ratio | 0.72 | | 0.59 | 0.12 | 0.17 | 0.59 |
| Control Delay | 19.1 | | 8.9 | 2.3 | 30.3 | 21.2 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.1 | | 8.9 | 2.3 | 30.3 | 21.2 |
| LOS | B | | A | A | C | C |
| Approach Delay | 19.1 | | | 6.6 | 22.4 | |
| Approach LOS | B | | | A | C | |
| Queue Length 50th (ft) | 157 | | 33 | 15 | 13 | 69 |
| Queue Length 95th (ft) | 358 | | 101 | 30 | 51 | 176 |
| Internal Link Dist (ft) | 604 | | | 2001 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1730 | | 1011 | 1800 | 715 | 969 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.35 | | 0.34 | 0.10 | 0.06 | 0.30 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 53.6 |
| Natural Cycle: | 60 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.72 |
| Intersection Signal Delay: | 15.4 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 65.2% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

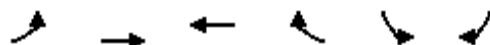
Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 342 | 463 | 271 | 21 | 70 | 275 |
| Future Volume (vph) | 342 | 463 | 271 | 21 | 70 | 275 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.98 | |
| Frt | | | 0.990 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1761 | 1854 | 1684 | 0 | 1710 | 1530 |
| Flt Permitted | 0.340 | | | | 0.950 | |
| Satd. Flow (perm) | 630 | 1854 | 1684 | 0 | 1674 | 1530 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 381 | 1371 | | 705 | |
| Travel Time (s) | | 7.4 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 7 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.89 | 0.89 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 3% | 3% | 10% | 10% | 4% | 4% |
| Adj. Flow (vph) | 380 | 514 | 304 | 24 | 80 | 313 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 380 | 514 | 328 | 0 | 80 | 313 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | | Lead |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

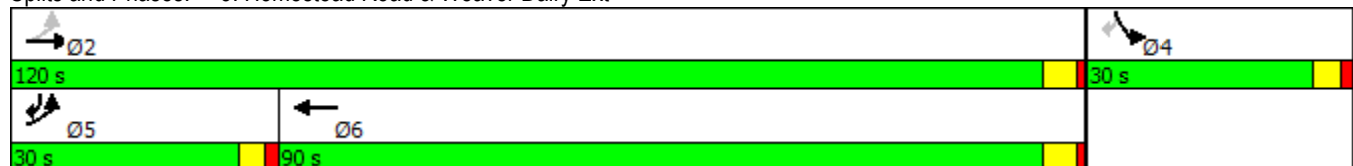


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 38.6 | 40.4 | 16.1 | | 7.8 | 26.3 |
| Actuated g/C Ratio | 0.72 | 0.76 | 0.30 | | 0.15 | 0.49 |
| v/c Ratio | 0.46 | 0.37 | 0.65 | | 0.32 | 0.41 |
| Control Delay | 5.2 | 4.2 | 25.1 | | 29.2 | 10.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 5.2 | 4.2 | 25.1 | | 29.2 | 10.4 |
| LOS | A | A | C | | C | B |
| Approach Delay | | 4.6 | 25.1 | | 14.2 | |
| Approach LOS | | A | C | | B | |
| Queue Length 50th (ft) | 36 | 53 | 91 | | 24 | 53 |
| Queue Length 95th (ft) | 74 | 106 | 202 | | 71 | 123 |
| Internal Link Dist (ft) | | 301 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1033 | 1854 | 1684 | | 872 | 1044 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.28 | 0.19 | | 0.09 | 0.30 |

Intersection Summary

| | |
|-----------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 53.3 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.65 |
| Intersection Signal Delay: | 11.1 |
| Intersection LOS: | B |
| Intersection Capacity Utilization | 52.8% |
| ICU Level of Service | A |
| Analysis Period (min) | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 262 | 8 | 297 | 3 | 2 | 5 | 159 | 827 | 3 | 14 | 1163 | 214 |
| Future Volume (vph) | 262 | 8 | 297 | 3 | 2 | 5 | 159 | 827 | 3 | 14 | 1163 | 214 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | | | 0.98 | 0.99 | 1.00 | | 1.00 | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.955 | | 0.950 | 0.993 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1715 | 1724 | 1615 | 1664 | 1740 | 1567 | 3335 | 3438 | 0 | 1727 | 3454 | 1545 |
| Flt Permitted | 0.950 | 0.955 | | 0.950 | 0.993 | | 0.950 | | | 0.242 | | |
| Satd. Flow (perm) | 1715 | 1724 | 1583 | 1654 | 1738 | 1567 | 3334 | 3438 | 0 | 440 | 3454 | 1525 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | | | 6 | 6 | | | 1 | | 5 | 5 | | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.36 | 0.36 | 0.36 | 0.91 | 0.91 | 0.91 | 0.88 | 0.88 | 0.88 |
| Heavy Vehicles (%) | 4% | 4% | 4% | 2% | 2% | 2% | 5% | 5% | 5% | 4% | 4% | 4% |
| Adj. Flow (vph) | 288 | 9 | 326 | 8 | 6 | 14 | 175 | 909 | 3 | 16 | 1322 | 243 |
| Shared Lane Traffic (%) | 49% | | | 14% | | | | | | | | |
| Lane Group Flow (vph) | 147 | 150 | 326 | 7 | 7 | 14 | 175 | 912 | 0 | 16 | 1322 | 243 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 44.0 | 44.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 44.0 |
| Total Split (s) | 30.0 | 30.0 | 25.0 | 20.0 | 20.0 | 15.0 | 25.0 | 85.0 | | 15.0 | 75.0 | 30.0 |
| Total Split (%) | 20.0% | 20.0% | 16.7% | 13.3% | 13.3% | 10.0% | 16.7% | 56.7% | | 10.0% | 50.0% | 20.0% |
| Maximum Green (s) | 22.9 | 22.9 | 18.7 | 13.1 | 13.1 | 8.6 | 18.7 | 79.0 | | 8.6 | 68.6 | 22.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

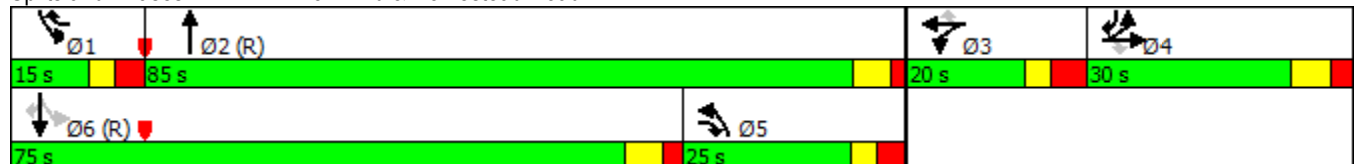


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 18.7 | 18.7 | 38.7 | 8.9 | 8.9 | 12.0 | 20.0 | 107.7 | | 90.8 | 90.8 | 109.4 |
| Actuated g/C Ratio | 0.12 | 0.12 | 0.26 | 0.06 | 0.06 | 0.08 | 0.13 | 0.72 | | 0.61 | 0.61 | 0.73 |
| v/c Ratio | 0.69 | 0.70 | 0.79 | 0.07 | 0.07 | 0.11 | 0.39 | 0.37 | | 0.05 | 0.63 | 0.22 |
| Control Delay | 78.9 | 79.8 | 59.1 | 68.3 | 68.3 | 45.8 | 62.4 | 11.0 | | 16.1 | 22.6 | 6.4 |
| 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 | 78.9 | 79.8 | 59.1 | 68.3 | 68.3 | 45.8 | 62.4 | 11.0 | | 16.1 | 22.6 | 6.4 |
| LOS | E | E | E | E | E | D | E | B | | B | C | A |
| Approach Delay | | 68.7 | | | 57.1 | | | 19.3 | | | 20.1 | |
| Approach LOS | | E | | | E | | | B | | | C | |
| Queue Length 50th (ft) | 147 | 150 | 285 | 7 | 7 | 13 | 81 | 163 | | 5 | 373 | 48 |
| Queue Length 95th (ft) | 220 | 223 | 320 | 10 | 10 | 10 | 122 | 308 | | 20 | 601 | 108 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 286 | 288 | 412 | 166 | 174 | 141 | 444 | 2469 | | 352 | 2090 | 1154 |
| 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 | 0.51 | 0.52 | 0.79 | 0.04 | 0.04 | 0.10 | 0.39 | 0.37 | | 0.05 | 0.63 | 0.21 |

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 30 (20%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 155
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 29.3
 Intersection Capacity Utilization 69.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
1: Seawell School Rd & Homestead Road

10/26/2017

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↗ | | ↖ | ↗ | ↖ | ↗ |
| Traffic Volume (vph) | 271 | 20 | 88 | 264 | 18 | 70 |
| Future Volume (vph) | 271 | 20 | 88 | 264 | 18 | 70 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | | 1.00 | | | |
| Frt | 0.991 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1747 | 0 | 1694 | 1783 | 1709 | 1529 |
| Flt Permitted | | | 0.430 | | 0.950 | |
| Satd. Flow (perm) | 1747 | 0 | 766 | 1783 | 1709 | 1529 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2071 | 750 | |
| Travel Time (s) | 13.3 | | | 40.3 | 14.6 | |
| Confl. Peds. (#/hr) | | 2 | 2 | | | |
| Peak Hour Factor | 0.93 | 0.93 | 0.86 | 0.86 | 0.80 | 0.80 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 6% | 3% | 3% |
| Adj. Flow (vph) | 291 | 22 | 102 | 307 | 23 | 88 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 313 | 0 | 102 | 307 | 23 | 88 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | Lead | |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

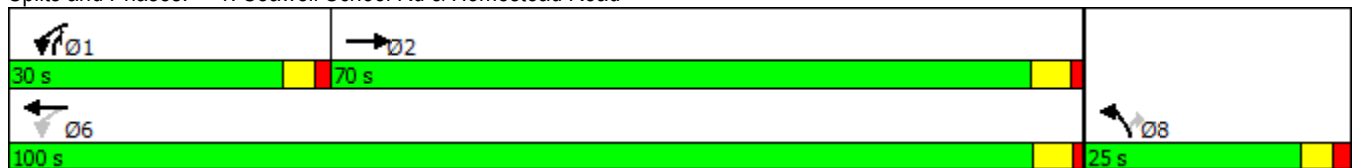


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 16.6 | | 25.0 | 29.5 | 7.1 | 8.5 |
| Actuated g/C Ratio | 0.52 | | 0.78 | 0.92 | 0.22 | 0.27 |
| v/c Ratio | 0.35 | | 0.13 | 0.19 | 0.06 | 0.22 |
| Control Delay | 9.0 | | 2.1 | 1.8 | 13.1 | 10.1 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.0 | | 2.1 | 1.8 | 13.1 | 10.1 |
| LOS | A | | A | A | B | B |
| Approach Delay | 9.0 | | | 1.9 | 10.7 | |
| Approach LOS | A | | | A | B | |
| Queue Length 50th (ft) | 28 | | 0 | 0 | 2 | 9 |
| Queue Length 95th (ft) | 115 | | 19 | 51 | 17 | 28 |
| Internal Link Dist (ft) | 604 | | | 1991 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1747 | | 1438 | 1783 | 1107 | 1372 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.18 | | 0.07 | 0.17 | 0.02 | 0.06 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 31.9 |
| Natural Cycle: | 40 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.35 |
| Intersection Signal Delay: | 5.7 |
| Intersection LOS: | A |
| Intersection Capacity Utilization: | 39.7% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings

3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 125 | 243 | 286 | 31 | 57 | 138 |
| Future Volume (vph) | 125 | 243 | 286 | 31 | 57 | 138 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.99 | |
| Frt | | | 0.987 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1695 | 1785 | 1726 | 0 | 1743 | 1560 |
| Flt Permitted | 0.332 | | | | 0.950 | |
| Satd. Flow (perm) | 592 | 1785 | 1726 | 0 | 1722 | 1560 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 391 | 1371 | | 705 | |
| Travel Time (s) | | 7.6 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.79 | 0.79 | 0.89 | 0.89 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 7% | 2% | 2% |
| Adj. Flow (vph) | 139 | 270 | 362 | 39 | 64 | 155 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 139 | 270 | 401 | 0 | 64 | 155 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | Lead | |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

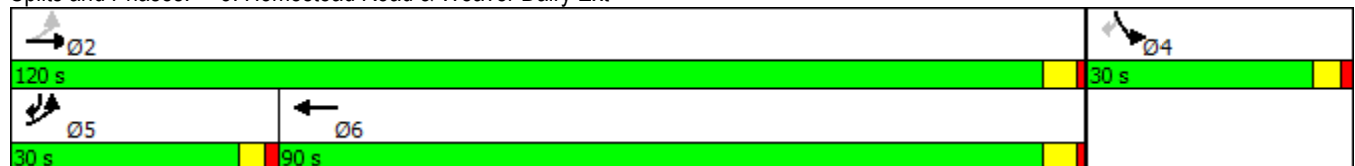


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 30.8 | 33.8 | 16.3 | | 7.5 | 15.1 |
| Actuated g/C Ratio | 0.73 | 0.80 | 0.38 | | 0.18 | 0.36 |
| v/c Ratio | 0.21 | 0.19 | 0.61 | | 0.21 | 0.28 |
| Control Delay | 3.6 | 3.2 | 16.7 | | 21.9 | 11.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 3.6 | 3.2 | 16.7 | | 21.9 | 11.1 |
| LOS | A | A | B | | C | B |
| Approach Delay | | 3.3 | 16.7 | | 14.2 | |
| Approach LOS | | A | B | | B | |
| Queue Length 50th (ft) | 11 | 24 | 87 | | 15 | 23 |
| Queue Length 95th (ft) | 26 | 49 | 156 | | 51 | 65 |
| Internal Link Dist (ft) | | 311 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 1159 | 1785 | 1726 | | 1127 | 1233 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.15 | 0.23 | | 0.06 | 0.13 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 42.4 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.61 |
| Intersection Signal Delay: | 10.9 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 42.2% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 174 | 5 | 234 | 11 | 5 | 25 | 179 | 781 | 2 | 13 | 705 | 175 |
| Future Volume (vph) | 174 | 5 | 234 | 11 | 5 | 25 | 179 | 781 | 2 | 13 | 705 | 175 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.98 | 0.99 | 1.00 | 0.98 | 1.00 | 1.00 | | | | 0.99 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.955 | | 0.950 | 0.982 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1698 | 1707 | 1600 | 1664 | 1720 | 1567 | 3335 | 3438 | 0 | 1727 | 3454 | 1545 |
| Flt Permitted | 0.950 | 0.955 | | 0.950 | 0.982 | | 0.950 | | | 0.264 | | |
| Satd. Flow (perm) | 1691 | 1700 | 1567 | 1652 | 1716 | 1542 | 3333 | 3438 | 0 | 480 | 3454 | 1524 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | 4 | | 6 | 6 | | 4 | 1 | | 4 | 4 | | 1 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.37 | 0.37 | 0.37 | 0.90 | 0.90 | 0.90 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 5% | 5% | 5% | 2% | 2% | 2% | 5% | 5% | 5% | 4% | 4% | 4% |
| Adj. Flow (vph) | 198 | 6 | 266 | 30 | 14 | 68 | 199 | 868 | 2 | 14 | 750 | 186 |
| Shared Lane Traffic (%) | 49% | | | 28% | | | | | | | | |
| Lane Group Flow (vph) | 101 | 103 | 266 | 22 | 22 | 68 | 199 | 870 | 0 | 14 | 750 | 186 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 44.0 | 44.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 44.0 |
| Total Split (s) | 42.0 | 42.0 | 20.0 | 50.0 | 50.0 | 15.0 | 20.0 | 53.0 | | 15.0 | 48.0 | 42.0 |
| Total Split (%) | 26.3% | 26.3% | 12.5% | 31.3% | 31.3% | 9.4% | 12.5% | 33.1% | | 9.4% | 30.0% | 26.3% |
| Maximum Green (s) | 34.9 | 34.9 | 13.7 | 43.1 | 43.1 | 8.6 | 13.7 | 47.0 | | 8.6 | 41.6 | 34.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
 4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

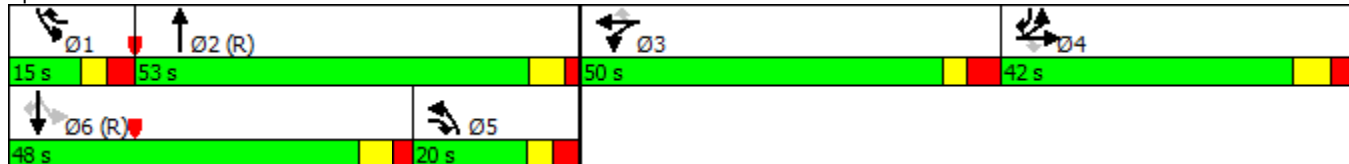


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|-------|-----|-------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 15.3 | 15.3 | 30.3 | 9.5 | 9.5 | 16.2 | 15.0 | 109.5 | | 102.9 | 102.9 | 118.2 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.19 | 0.06 | 0.06 | 0.10 | 0.09 | 0.68 | | 0.64 | 0.64 | 0.74 |
| v/c Ratio | 0.62 | 0.63 | 0.89 | 0.22 | 0.22 | 0.43 | 0.64 | 0.37 | | 0.04 | 0.34 | 0.16 |
| Control Delay | 85.4 | 85.9 | 83.1 | 76.9 | 76.5 | 55.5 | 79.9 | 12.2 | | 13.2 | 14.6 | 5.8 |
| 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 | 85.4 | 85.9 | 83.1 | 76.9 | 76.5 | 55.5 | 79.9 | 12.2 | | 13.2 | 14.6 | 5.8 |
| LOS | F | F | F | E | E | E | E | B | | B | B | A |
| Approach Delay | | 84.2 | | | 63.8 | | | 24.8 | | | 12.9 | |
| Approach LOS | | F | | | E | | | C | | | B | |
| Queue Length 50th (ft) | 108 | 111 | 232 | 23 | 23 | 55 | 105 | 198 | | 5 | 186 | 48 |
| Queue Length 95th (ft) | 169 | 171 | 296 | 23 | 23 | 36 | 151 | 278 | | 17 | 260 | 78 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 392 | 394 | 300 | 468 | 483 | 172 | 312 | 2352 | | 386 | 2221 | 1178 |
| 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 | 0.26 | 0.26 | 0.89 | 0.05 | 0.05 | 0.40 | 0.64 | 0.37 | | 0.04 | 0.34 | 0.16 |

Intersection Summary

Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 40 (25%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 155
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 32.9
 Intersection Capacity Utilization 69.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017



| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↔ | | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (vph) | 333 | 34 | 184 | 515 | 50 | 157 |
| Future Volume (vph) | 333 | 34 | 184 | 515 | 50 | 157 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | 3% | | | 1% | 5% | |
| Storage Length (ft) | | 0 | 750 | | 150 | 0 |
| Storage Lanes | | 0 | 1 | | 1 | 1 |
| Taper Length (ft) | | | 25 | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.987 | | | | | 0.850 |
| Flt Protected | | | 0.950 | | 0.950 | |
| Satd. Flow (prot) | 1776 | 0 | 1761 | 1853 | 1725 | 1544 |
| Flt Permitted | | | 0.338 | | 0.950 | |
| Satd. Flow (perm) | 1776 | 0 | 626 | 1853 | 1725 | 1544 |
| Right Turn on Red | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | 35 | | | 35 | 35 | |
| Link Distance (ft) | 684 | | | 2091 | 750 | |
| Travel Time (s) | 13.3 | | | 40.7 | 14.6 | |
| Peak Hour Factor | 0.95 | 0.95 | 0.96 | 0.96 | 0.57 | 0.57 |
| Heavy Vehicles (%) | 4% | 4% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 351 | 36 | 192 | 536 | 88 | 275 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 387 | 0 | 192 | 536 | 88 | 275 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(ft) | 12 | | | 12 | 12 | |
| Link Offset(ft) | 0 | | | 0 | 0 | |
| Crosswalk Width(ft) | 16 | | | 16 | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.02 | 1.02 | 1.01 | 1.01 | 1.03 | 1.03 |
| Turning Speed (mph) | | 9 | 15 | | 15 | 9 |
| Turn Type | NA | | pm+pt | NA | Prot | pm+ov |
| Protected Phases | 2 | | 1 | 6 | 8 | 1 |
| Permitted Phases | | | 6 | | | 8 |
| Detector Phase | 2 | | 1 | 6 | 8 | 1 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 10.0 | | 7.0 | 10.0 | 7.0 | 7.0 |
| Minimum Split (s) | 15.0 | | 12.0 | 16.0 | 12.0 | 12.0 |
| Total Split (s) | 70.0 | | 30.0 | 100.0 | 25.0 | 30.0 |
| Total Split (%) | 56.0% | | 24.0% | 80.0% | 20.0% | 24.0% |
| Maximum Green (s) | 65.0 | | 25.4 | 95.2 | 20.1 | 25.4 |
| Yellow Time (s) | 3.7 | | 3.0 | 3.8 | 3.0 | 3.0 |
| All-Red Time (s) | 1.3 | | 1.6 | 1.0 | 1.9 | 1.6 |
| Lost Time Adjust (s) | 0.0 | | 0.4 | 0.2 | 0.1 | 0.4 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | | Lead | | | Lead |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 1.0 | 3.0 | 1.0 | 1.0 |

Lanes, Volumes, Timings
 1: Seawell School Rd & Homestead Road

10/26/2017

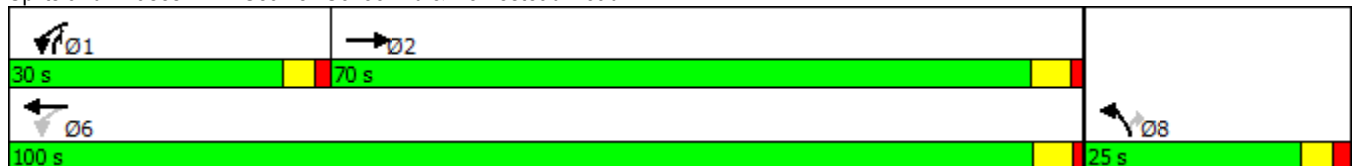


| Lane Group | EBT | EBR | WBL | WBT | NBL | NBR |
|-------------------------|------|-----|------|------|------|------|
| Recall Mode | Min | | None | Min | None | None |
| Act Effct Green (s) | 15.6 | | 28.1 | 29.7 | 7.7 | 16.4 |
| Actuated g/C Ratio | 0.37 | | 0.66 | 0.70 | 0.18 | 0.38 |
| v/c Ratio | 0.60 | | 0.32 | 0.42 | 0.28 | 0.46 |
| Control Delay | 16.0 | | 5.1 | 5.5 | 21.1 | 13.4 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.0 | | 5.1 | 5.5 | 21.1 | 13.4 |
| LOS | B | | A | A | C | B |
| Approach Delay | 16.0 | | | 5.4 | 15.3 | |
| Approach LOS | B | | | A | B | |
| Queue Length 50th (ft) | 77 | | 16 | 57 | 20 | 43 |
| Queue Length 95th (ft) | 156 | | 38 | 118 | 37 | 67 |
| Internal Link Dist (ft) | 604 | | | 2011 | 670 | |
| Turn Bay Length (ft) | | | 750 | | 150 | |
| Base Capacity (vph) | 1776 | | 1138 | 1853 | 860 | 1295 |
| Starvation Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.22 | | 0.17 | 0.29 | 0.10 | 0.21 |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 125 |
| Actuated Cycle Length: | 42.6 |
| Natural Cycle: | 45 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.60 |
| Intersection Signal Delay: | 10.6 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 48.1% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 1: Seawell School Rd & Homestead Road



Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 232 | 315 | 464 | 52 | 72 | 326 |
| Future Volume (vph) | 232 | 315 | 464 | 52 | 72 | 326 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -1% | 3% | | 3% | |
| Storage Length (ft) | 100 | | | 0 | 0 | 100 |
| Storage Lanes | 1 | | | 0 | 1 | 1 |
| Taper Length (ft) | 25 | | | | 25 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | | | | 0.96 | |
| Frt | | | 0.986 | | | 0.850 |
| Flt Protected | 0.950 | | | | 0.950 | |
| Satd. Flow (prot) | 1761 | 1854 | 1809 | 0 | 1743 | 1560 |
| Flt Permitted | 0.214 | | | | 0.950 | |
| Satd. Flow (perm) | 397 | 1854 | 1809 | 0 | 1675 | 1560 |
| Right Turn on Red | | | | No | | No |
| Satd. Flow (RTOR) | | | | | | |
| Link Speed (mph) | | 35 | 35 | | 25 | |
| Link Distance (ft) | | 371 | 1371 | | 705 | |
| Travel Time (s) | | 7.2 | 26.7 | | 19.2 | |
| Confl. Peds. (#/hr) | | | | | 13 | |
| Peak Hour Factor | 0.83 | 0.83 | 0.95 | 0.95 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 3% | 3% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 280 | 380 | 488 | 55 | 77 | 347 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 280 | 380 | 543 | 0 | 77 | 347 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(ft) | | 12 | 12 | | 12 | |
| Link Offset(ft) | | 0 | 0 | | 0 | |
| Crosswalk Width(ft) | | 16 | 16 | | 16 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 0.99 | 0.99 | 1.02 | 1.02 | 1.02 | 1.02 |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Turn Type | pm+pt | NA | NA | | Prot | pm+ov |
| Protected Phases | 5 | 2 | 6 | | 4 | 5 |
| Permitted Phases | 2 | | | | | 4 |
| Detector Phase | 5 | 2 | 6 | | 4 | 5 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 7.0 | 10.0 | 10.0 | | 7.0 | 7.0 |
| Minimum Split (s) | 12.0 | 15.0 | 15.0 | | 12.0 | 12.0 |
| Total Split (s) | 30.0 | 120.0 | 90.0 | | 30.0 | 30.0 |
| Total Split (%) | 20.0% | 80.0% | 60.0% | | 20.0% | 20.0% |
| Maximum Green (s) | 25.4 | 115.1 | 85.1 | | 25.4 | 25.4 |
| Yellow Time (s) | 3.0 | 3.9 | 3.9 | | 3.0 | 3.0 |
| All-Red Time (s) | 1.6 | 1.0 | 1.0 | | 1.6 | 1.6 |
| Lost Time Adjust (s) | 0.4 | 0.1 | 0.1 | | 0.4 | 0.4 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 |
| Lead/Lag | Lead | | Lag | | Lead | |

Lanes, Volumes, Timings
 3: Homestead Road & Weaver Dairy Ext

10/26/2017

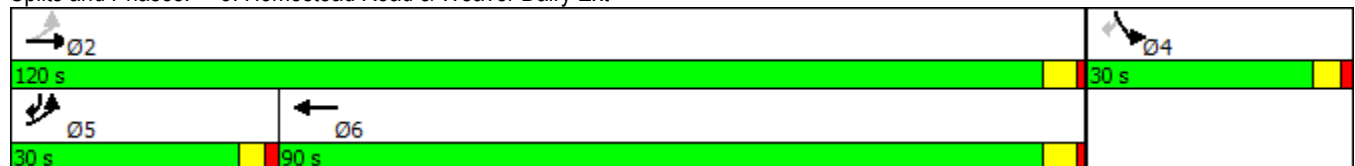


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|-------------------------|------|------|------|-----|------|------|
| Lead-Lag Optimize? | Yes | | Yes | | | Yes |
| Vehicle Extension (s) | 2.0 | 3.0 | 3.0 | | 2.0 | 2.0 |
| Recall Mode | None | Min | Min | | None | None |
| Act Effct Green (s) | 46.2 | 48.0 | 24.5 | | 8.4 | 25.8 |
| Actuated g/C Ratio | 0.75 | 0.78 | 0.40 | | 0.14 | 0.42 |
| v/c Ratio | 0.43 | 0.26 | 0.75 | | 0.32 | 0.53 |
| Control Delay | 5.3 | 3.4 | 25.2 | | 34.6 | 17.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 5.3 | 3.4 | 25.2 | | 34.6 | 17.3 |
| LOS | A | A | C | | C | B |
| Approach Delay | | 4.2 | 25.3 | | 20.4 | |
| Approach LOS | | A | C | | C | |
| Queue Length 50th (ft) | 26 | 37 | 170 | | 26 | 83 |
| Queue Length 95th (ft) | 51 | 69 | 364 | | 85 | 218 |
| Internal Link Dist (ft) | | 291 | 1291 | | 625 | |
| Turn Bay Length (ft) | 100 | | | | | 100 |
| Base Capacity (vph) | 919 | 1854 | 1781 | | 794 | 957 |
| Starvation Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.20 | 0.30 | | 0.10 | 0.36 |

Intersection Summary

























| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 150 |
| Actuated Cycle Length: | 61.5 |
| Natural Cycle: | 55 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.75 |
| Intersection Signal Delay: | 15.5 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 58.8% |
| ICU Level of Service: | B |
| Analysis Period (min): | 15 |

Splits and Phases: 3: Homestead Road & Weaver Dairy Ext



Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

10/26/2017

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 257 | 1 | 257 | 5 | 2 | 5 | 337 | 1429 | 2 | 8 | 1015 | 302 |
| Future Volume (vph) | 257 | 1 | 257 | 5 | 2 | 5 | 337 | 1429 | 2 | 8 | 1015 | 302 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Grade (%) | | -8% | | | 2% | | | 0% | | | 1% | |
| Storage Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | 0 | 225 | | 325 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 1 | | 1 |
| Taper Length (ft) | 25 | | | 25 | | | 25 | | | 25 | | |
| Lane Util. Factor | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 1.00 | 0.95 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | 0.97 | 0.99 | 0.99 | 0.98 | 1.00 | 1.00 | | | | 0.98 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | 0.953 | | 0.950 | 0.976 | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1748 | 1754 | 1647 | 1664 | 1710 | 1567 | 3400 | 3504 | 0 | 1761 | 3522 | 1575 |
| Flt Permitted | 0.950 | 0.953 | | 0.950 | 0.976 | | 0.950 | | | 0.097 | | |
| Satd. Flow (perm) | 1742 | 1747 | 1599 | 1640 | 1698 | 1543 | 3396 | 3504 | 0 | 180 | 3522 | 1552 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 35 | | | 35 | | | 40 | | | | 40 |
| Link Distance (ft) | | 913 | | | 293 | | | 1201 | | | | 886 |
| Travel Time (s) | | 17.8 | | | 5.7 | | | 20.5 | | | | 15.1 |
| Confl. Peds. (#/hr) | 3 | | 11 | 11 | | 3 | 2 | | 16 | 16 | | 2 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.65 | 0.65 | 0.65 | 0.91 | 0.91 | 0.91 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% |
| Adj. Flow (vph) | 273 | 1 | 273 | 8 | 3 | 8 | 370 | 1570 | 2 | 9 | 1103 | 328 |
| Shared Lane Traffic (%) | 50% | | | 32% | | | | | | | | |
| Lane Group Flow (vph) | 136 | 138 | 273 | 5 | 6 | 8 | 370 | 1572 | 0 | 9 | 1103 | 328 |
| 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 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 0.95 | 0.95 | 0.95 | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.01 | 1.01 | 1.01 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Turn Type | Split | NA | pm+ov | Split | NA | pm+ov | Prot | NA | | pm+pt | NA | pm+ov |
| Protected Phases | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Permitted Phases | | | 4 | | | 3 | | | | 6 | | 6 |
| Detector Phase | 4 | 4 | 5 | 3 | 3 | 1 | 5 | 2 | | 1 | 6 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 12.0 | | 7.0 | 12.0 | 7.0 |
| Minimum Split (s) | 42.0 | 42.0 | 15.0 | 50.0 | 50.0 | 14.0 | 15.0 | 29.0 | | 14.0 | 46.0 | 42.0 |
| Total Split (s) | 41.0 | 41.0 | 25.0 | 50.0 | 50.0 | 15.0 | 25.0 | 74.0 | | 15.0 | 64.0 | 41.0 |
| Total Split (%) | 22.8% | 22.8% | 13.9% | 27.8% | 27.8% | 8.3% | 13.9% | 41.1% | | 8.3% | 35.6% | 22.8% |
| Maximum Green (s) | 33.9 | 33.9 | 18.7 | 43.1 | 43.1 | 8.6 | 18.7 | 68.0 | | 8.6 | 57.6 | 33.9 |
| Yellow Time (s) | 4.5 | 4.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.2 | | 3.0 | 4.2 | 4.5 |
| All-Red Time (s) | 2.6 | 2.6 | 3.3 | 3.9 | 3.9 | 3.4 | 3.3 | 1.8 | | 3.4 | 2.2 | 2.6 |
| Lost Time Adjust (s) | -2.1 | -2.1 | -1.3 | -1.9 | -1.9 | -1.4 | -1.3 | -1.0 | | -1.4 | -1.4 | -2.1 |
| Total Lost Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | | Lead | Lead | Lag |

Lanes, Volumes, Timings
4: M.L.K. Jr. Blvd & Homestead Road

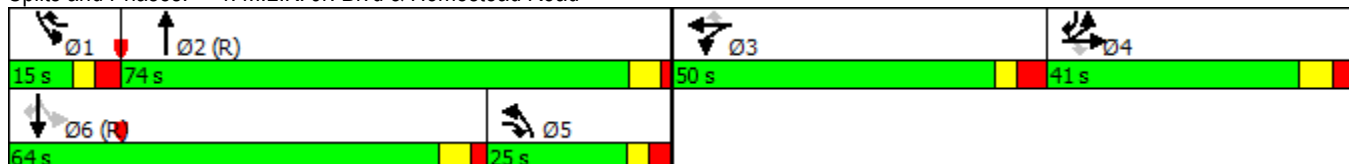
10/26/2017

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|-------|-------|-----|-------|-------|-------|
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 6.0 | | 2.0 | 6.0 | 1.0 |
| Recall Mode | None | None | None | None | None | None | None | C-Max | | None | C-Max | None |
| Walk Time (s) | 7.0 | 7.0 | | 7.0 | 7.0 | | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | 27.0 | 27.0 | | 36.0 | 36.0 | | | 15.0 | | | 32.0 | 27.0 |
| Pedestrian Calls (#/hr) | 0 | 0 | | 0 | 0 | | | 0 | | | 0 | 0 |
| Act Effct Green (s) | 19.8 | 19.8 | 39.8 | 8.9 | 8.9 | 12.0 | 20.0 | 136.6 | | 119.6 | 119.6 | 139.4 |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.22 | 0.05 | 0.05 | 0.07 | 0.11 | 0.76 | | 0.66 | 0.66 | 0.77 |
| v/c Ratio | 0.71 | 0.72 | 0.76 | 0.06 | 0.07 | 0.08 | 0.98 | 0.59 | | 0.05 | 0.47 | 0.27 |
| Control Delay | 96.1 | 96.8 | 72.3 | 83.3 | 83.8 | 56.8 | 119.7 | 13.3 | | 14.4 | 17.0 | 5.7 |
| 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 | 96.1 | 96.8 | 72.3 | 83.3 | 83.8 | 56.8 | 119.7 | 13.3 | | 14.4 | 17.0 | 5.7 |
| LOS | F | F | E | F | F | E | F | B | | B | B | A |
| Approach Delay | | 84.4 | | | 72.3 | | | 33.6 | | | 14.4 | |
| Approach LOS | | F | | | E | | | C | | | B | |
| Queue Length 50th (ft) | 166 | 168 | 293 | 6 | 7 | 9 | 228 | 389 | | 3 | 287 | 69 |
| Queue Length 95th (ft) | 243 | 246 | 342 | 16 | 20 | 16 | #342 | 683 | | 14 | 470 | 149 |
| Internal Link Dist (ft) | | 833 | | | 213 | | | 1121 | | | 806 | |
| Turn Bay Length (ft) | 125 | | 550 | 150 | | 75 | 350 | | | 225 | | 325 |
| Base Capacity (vph) | 349 | 350 | 359 | 416 | 427 | 117 | 377 | 2658 | | 207 | 2340 | 1249 |
| 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 | 0.39 | 0.39 | 0.76 | 0.01 | 0.01 | 0.07 | 0.98 | 0.59 | | 0.04 | 0.47 | 0.26 |

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 16 (9%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 155
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 33.8 Intersection LOS: C
 Intersection Capacity Utilization 76.2% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: M.L.K. Jr. Blvd & Homestead Road



Appendix F – Synchro Unsignalized HCM Analysis
Output

HCM 2010 TWSC
2: Site Driveway & Homestead Road

10/26/2017

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 781 | 2 | 12 | 534 | 4 | 24 |
| Future Vol, veh/h | 781 | 2 | 12 | 534 | 4 | 24 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | 1 | 0 | - |
| Peak Hour Factor | 90 | 90 | 89 | 89 | 90 | 90 |
| Heavy Vehicles, % | 3 | 2 | 2 | 10 | 2 | 2 |
| Mvmt Flow | 868 | 2 | 13 | 600 | 4 | 27 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 870 | 0 | 1496 869 |
| Stage 1 | - | - | - | - | 869 - |
| Stage 2 | - | - | - | - | 627 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 775 | - | 135 351 |
| Stage 1 | - | - | - | - | 410 - |
| Stage 2 | - | - | - | - | 532 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 775 | - | 132 351 |
| Mov Cap-2 Maneuver | - | - | - | - | 132 - |
| Stage 1 | - | - | - | - | 410 - |
| Stage 2 | - | - | - | - | 519 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.2 | 19.2 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 284 | - | - | 775 | - |
| HCM Lane V/C Ratio | 0.11 | - | - | 0.017 | - |
| HCM Control Delay (s) | 19.2 | - | - | 9.7 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 347 | 3 | 18 | 406 | 4 | 21 |
| Future Vol, veh/h | 347 | 3 | 18 | 406 | 4 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | 1 | 0 | - |
| Peak Hour Factor | 90 | 90 | 79 | 79 | 90 | 90 |
| Heavy Vehicles, % | 7 | 2 | 2 | 7 | 2 | 2 |
| Mvmt Flow | 386 | 3 | 23 | 514 | 4 | 23 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0 | 0 | 389 | 0 | 946 |
| Stage 1 | - | - | - | - | 387 |
| Stage 2 | - | - | - | - | 559 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1170 | - | 290 |
| Stage 1 | - | - | - | - | 686 |
| Stage 2 | - | - | - | - | 572 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1170 | - | 282 |
| Mov Cap-2 Maneuver | - | - | - | - | 282 |
| Stage 1 | - | - | - | - | 686 |
| Stage 2 | - | - | - | - | 556 |

| Approach | EB | WB | NB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 0 | 0.3 | 12 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 544 | - | - | 1170 | - |
| HCM Lane V/C Ratio | 0.051 | - | - | 0.019 | - |
| HCM Control Delay (s) | 12 | - | - | 8.1 | 0 |
| HCM Lane LOS | B | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 526 | 5 | 25 | 765 | 3 | 21 |
| Future Vol, veh/h | 526 | 5 | 25 | 765 | 3 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | 1 | 0 | - |
| Peak Hour Factor | 83 | 83 | 95 | 95 | 90 | 90 |
| Heavy Vehicles, % | 3 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 634 | 6 | 26 | 805 | 3 | 23 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 640 | 0 | 1495 |
| Stage 1 | - | - | - | - | 637 |
| Stage 2 | - | - | - | - | 858 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 944 | - | 135 |
| Stage 1 | - | - | - | - | 527 |
| Stage 2 | - | - | - | - | 415 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 944 | - | 128 |
| Mov Cap-2 Maneuver | - | - | - | - | 128 |
| Stage 1 | - | - | - | - | 527 |
| Stage 2 | - | - | - | - | 394 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.3 | 15.9 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 356 | - | - | 944 | - |
| HCM Lane V/C Ratio | 0.075 | - | - | 0.028 | - |
| HCM Control Delay (s) | 15.9 | - | - | 8.9 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↔ | | ↔ | ↑ | ↔ | |
| Traffic Vol, veh/h | 781 | 2 | 12 | 534 | 4 | 24 |
| Future Vol, veh/h | 781 | 2 | 12 | 534 | 4 | 24 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 100 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | 1 | 0 | - |
| Peak Hour Factor | 90 | 90 | 89 | 89 | 90 | 90 |
| Heavy Vehicles, % | 3 | 2 | 2 | 10 | 2 | 2 |
| Mvmt Flow | 868 | 2 | 13 | 600 | 4 | 27 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0 | 0 | 870 | 0 | 1496 869 |
| Stage 1 | - | - | - | - | 869 - |
| Stage 2 | - | - | - | - | 627 - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 3.318 |
| Pot Cap-1 Maneuver | - | - | 775 | - | 135 351 |
| Stage 1 | - | - | - | - | 410 - |
| Stage 2 | - | - | - | - | 532 - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 775 | - | 133 351 |
| Mov Cap-2 Maneuver | - | - | - | - | 133 - |
| Stage 1 | - | - | - | - | 410 - |
| Stage 2 | - | - | - | - | 523 - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.2 | 19.2 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 284 | - | - | 775 | - |
| HCM Lane V/C Ratio | 0.11 | - | - | 0.017 | - |
| HCM Control Delay (s) | 19.2 | - | - | 9.7 | - |
| HCM Lane LOS | C | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.5 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 347 | 3 | 18 | 406 | 4 | 21 |
| Future Vol, veh/h | 347 | 3 | 18 | 406 | 4 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 100 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | 1 | 0 | - |
| Peak Hour Factor | 90 | 90 | 79 | 79 | 90 | 90 |
| Heavy Vehicles, % | 7 | 2 | 2 | 7 | 2 | 2 |
| Mvmt Flow | 386 | 3 | 23 | 514 | 4 | 23 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 389 | 0 | 946 |
| Stage 1 | - | - | - | - | 387 |
| Stage 2 | - | - | - | - | 559 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1170 | - | 290 |
| Stage 1 | - | - | - | - | 686 |
| Stage 2 | - | - | - | - | 572 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1170 | - | 284 |
| Mov Cap-2 Maneuver | - | - | - | - | 284 |
| Stage 1 | - | - | - | - | 686 |
| Stage 2 | - | - | - | - | 561 |

| Approach | EB | WB | NB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 0 | 0.3 | 12 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 545 | - | - | 1170 | - |
| HCM Lane V/C Ratio | 0.051 | - | - | 0.019 | - |
| HCM Control Delay (s) | 12 | - | - | 8.1 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 526 | 5 | 25 | 765 | 3 | 21 |
| Future Vol, veh/h | 526 | 5 | 25 | 765 | 3 | 21 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 100 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | -1 | - | - | 1 | 0 | - |
| Peak Hour Factor | 83 | 83 | 95 | 95 | 90 | 90 |
| Heavy Vehicles, % | 3 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 634 | 6 | 26 | 805 | 3 | 23 |

| Major/Minor | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 640 | 0 | 1495 |
| Stage 1 | - | - | - | - | 637 |
| Stage 2 | - | - | - | - | 858 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 944 | - | 135 |
| Stage 1 | - | - | - | - | 527 |
| Stage 2 | - | - | - | - | 415 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 944 | - | 131 |
| Mov Cap-2 Maneuver | - | - | - | - | 131 |
| Stage 1 | - | - | - | - | 527 |
| Stage 2 | - | - | - | - | 404 |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.3 | 15.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 359 | - | - | 944 | - |
| HCM Lane V/C Ratio | 0.074 | - | - | 0.028 | - |
| HCM Control Delay (s) | 15.8 | - | - | 8.9 | - |
| HCM Lane LOS | C | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.1 | - |

Appendix G – Crash Data

**North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Strip Analysis Report**

| Acc No | Crash ID | Milepost | Date | Accident Type | Total Damage | Injuries | | | | Condition | | | Road | | Trfc Ctl | |
|--------|-----------|-------------|---------------------|----------------------------|--------------|--------------------|---|---|---|-----------|-----------|---|------|----|----------|----|
| | | | | | | F | A | B | C | R | L | W | Ch | Ci | Dv | Op |
| 9 | 104939320 | 0.012 | 11/08/2016 09:17 | REAR END, SLOW OR STOP | \$ 2300 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 3 | 1 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| Unit | 2 : 4 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 10 | 105122231 | 0.012 | 05/27/2017 09:23 | REAR END, SLOW OR STOP | \$ 1900 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 0 | 3 | 1 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: SE | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: SE | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| 11 | 105070487 | 0.014 | 07/11/2016 16:29 | REAR END, SLOW OR STOP | \$ 4350 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 0 | 3 | 1 |
| Unit | 1 : 11 | Alchl/Drgs: | 0 | Speed: 20 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 0 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| 12 | 103974257 | 0.028 | 12/18/2013 15:11 | LEFT TURN, SAME ROADWAY | \$ 5900 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 4 | Alchl/Drgs: | 0 | Speed: 10 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 8 | Obj Strk: | | | | | |
| 13 | 103895656 | 0.033 | 11/04/2013 17:12 | LEFT TURN, SAME ROADWAY | \$ 5200 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 0 | 13 | 1 |
| Unit | 1 : 3 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 3 | Alchl/Drgs: | 0 | Speed: 10 MPH Dir: S | | Veh Mnvr/Ped Actn: | | | | 8 | Obj Strk: | | | | | |
| 14 | 104357865 | 0.047 | 04/18/2015 15:36 | REAR END, SLOW OR STOP | \$ 4000 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 25 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 11 | Obj Strk: | | | | | |
| Unit | 2 : 4 | Alchl/Drgs: | 0 | Speed: 5 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 11 | Obj Strk: | | | | | |
| 15 | 105001607 | 0.096 | 01/13/2017 08:27 | REAR END, SLOW OR STOP | \$ 5500 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 2 |
| Unit | 1 : 4 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 16 | 104547004 | 0.460 | 10/15/2015 12:48 | PEDESTRIAN | \$ 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 13 | 1 |
| Unit | 1 : 32 | Alchl/Drgs: | 7 | Speed: 0 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | 14 | | | |
| Unit | 2 : 24 | Alchl/Drgs: | 0 | Speed: 0 MPH Dir: | | Veh Mnvr/Ped Actn: | | | | | Obj Strk: | | 14 | | | |
| 17 | 104647893 | 0.547 | 02/04/2016 22:58 | RAN OFF ROAD - LEFT | \$ 1000 | 0 | 0 | 0 | 0 | 1 | 4 | 1 | 1 | 0 | 3 | 1 |
| Unit | 1 : 1 | Alchl/Drgs: | 1 | Speed: 10 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 8 | Obj Strk: | | 58 | | | |

**North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Strip Analysis Report**

| Acc No | Crash ID | Milepost | Date | Accident Type | Total Damage | Injuries | | | | Condition | | | Road | | Trfc Ctl | |
|--------|-----------|-------------|---------------------|------------------------------|--------------|--------------------|---|---|---|-----------|-----------|---|------|----|----------|----|
| | | | | | | F | A | B | C | R | L | W | Ch | Ci | Dv | Op |
| 18 | 103919401 | 0.550 | 11/12/2013 16:06 | LEFT TURN, SAME ROADWAY | \$ 4800 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 1 | 0 | 3 | 1 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 10 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 8 | Obj Strk: | | | | | |
| 19 | 105056747 | 0.580 | 03/28/2017 22:35 | RAN OFF ROAD - LEFT | \$ 3500 | 0 | 0 | 1 | 0 | 1 | 5 | 1 | 1 | 0 | 0 | 2 |
| Unit | 1 : 21 | Alchl/Drgs: | 0 | Speed: 30 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 1 | Speed: 35 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 20 | 104334314 | 0.636 | 01/28/2015 19:33 | ANIMAL | \$ 1500 | 0 | 0 | 0 | 0 | 1 | 5 | 1 | 3 | 0 | 0 | |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | 17 | | | |
| 21 | 104945771 | 0.753 | 11/15/2016 10:15 | REAR END, SLOW OR STOP | \$ 6750 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 | 1 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 0 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| Unit | 2 : 4 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 22 | 103561360 | 0.800 | 09/24/2012 10:37 | REAR END, SLOW OR STOP | \$ 3900 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | | |
| Unit | 1 : 14 | Alchl/Drgs: | 0 | Speed: 5 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 11 | Obj Strk: | | | | | |
| Unit | 2 : 4 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 23 | 104518638 | 0.800 | 09/30/2015 16:04 | REAR END, SLOW OR STOP | \$ 7000 | 0 | 0 | 1 | 5 | 1 | 1 | 2 | 1 | 0 | 6 | 1 |
| Unit | 1 : 6 | Alchl/Drgs: | 0 | Speed: 0 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| Unit | 2 : 3 | Alchl/Drgs: | 0 | Speed: 40 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 24 | 104262188 | 0.922 | 12/13/2014 23:21 | RAN OFF ROAD - RIGHT | \$ 2000 | 0 | 0 | 0 | 0 | 1 | 5 | 1 | 1 | 0 | 0 | 2 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | 58 | | | |
| 25 | 104534865 | 0.952 | 10/19/2015 07:41 | LEFT TURN, SAME ROADWAY | \$ 13000 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 0 | | 3 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 26 | 105210296 | 0.972 | 08/24/2017 14:40 | OTHER COLLISION WITH VEHICLE | \$ 1650 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | | |
| Unit | 1 : 5 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: W | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| 27 | 104868982 | 0.991 | 09/06/2016 14:32 | REAR END, SLOW OR STOP | \$ 17800 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 3 | 1 |
| Unit | 1 : 4 | Alchl/Drgs: | 0 | Speed: 0 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 11 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH Dir: E | | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |

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| Acc No | Crash ID | Milepost | Date | Accident Type | Total Damage | Injuries | | | | Condition | | | Road | | Trfc Ctl | |
|-------------|---------------|--------------------|---------------------|-------------------------------|---------------|---------------------------|---|---|---|-----------|------------------|---|------|----|----------|----|
| | | | | | | F | A | B | C | R | L | W | Ch | Ci | Dv | Op |
| 28 | 104496293 | 1.000 | 09/18/2015 07:42 | REAR END, SLOW OR STOP | \$ 4000 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 3 | 1 |
| Unit | 1 : 1 | Alchl/Drgs: | 0 | Speed: 35 MPH | Dir: E | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 1 | Alchl/Drgs: | 0 | Speed: 0 MPH | Dir: E | Veh Mnvr/Ped Actn: | | | | 1 | Obj Strk: | | | | | |
| 29 | 105076528 | 1.000 | 04/15/2017 09:33 | LEFT TURN, DIFFERENT ROADWAYS | \$ 3000 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 3 | 1 |
| Unit | 1 : 4 | Alchl/Drgs: | 0 | Speed: 25 MPH | Dir: E | Veh Mnvr/Ped Actn: | | | | 4 | Obj Strk: | | | | | |
| Unit | 2 : 32 | Alchl/Drgs: | 7 | Speed: 10 MPH | Dir: N | Veh Mnvr/Ped Actn: | | | | 8 | Obj Strk: | | | | | |

Legend for Report Details:

- Acc No - Accident Number
- Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
- Condition: R - Road Surface, L - Ambient Light, W - Weather
- Rd Ch - Road Character
- Rd Ci - Roadway Contributing Circumstances
- Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
- Alchl/Drgs - Alcohol Drugs Suspected
- Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
- Obj Strk - Object Struck

**North Carolina Department of Transportation
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Strip Analysis Report**

Summary Statistics

High Level Crash Summary

| Crash Type | Number of Crashes | Percent of Total |
|-----------------------------------|--------------------------|-------------------------|
| Total Crashes | 29 | 100.00 |
| Fatal Crashes | 1 | 3.45 |
| Non-Fatal Injury Crashes | 10 | 34.48 |
| Total Injury Crashes | 11 | 37.93 |
| Property Damage Only Crashes | 18 | 62.07 |
| Night Crashes | 5 | 17.24 |
| Wet Crashes | 2 | 6.90 |
| Alcohol/Drugs Involvement Crashes | 2 | 6.90 |

Crash Severity Summary

| Crash Type | Number of Crashes | Percent of Total |
|------------------------------|--------------------------|-------------------------|
| Total Crashes | 29 | 100.00 |
| Fatal Crashes | 1 | 3.45 |
| Class A Crashes | 0 | 0.00 |
| Class B Crashes | 3 | 10.34 |
| Class C Crashes | 7 | 24.14 |
| Property Damage Only Crashes | 18 | 62.07 |

Vehicle Exposure Statistics

Annual ADT = 8100

Total Length = 1 (Miles)

1.609 (Kilometers)

Total Vehicle Exposure = 14.79 (MVMT)

23.8 (MVKMT)

| Crash Rate | Crashes Per 100 Million Vehicle Miles | Crashes Per 100 Million Vehicle Kilometers |
|----------------------|--|---|
| Total Crash Rate | 196.07 | 121.83 |
| Fatal Crash Rate | 6.76 | 4.20 |
| Non Fatal Crash Rate | 67.61 | 42.01 |
| Night Crash Rate | 33.81 | 21.01 |
| Wet Crash Rate | 13.52 | 8.40 |
| EPDO Rate | 1208.88 | 751.16 |

**North Carolina Department of Transportation
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Miscellaneous Statistics

| | |
|--------------------------------------|-----------|
| Severity Index = | 6.17 |
| EPDO Crash Index = | 178.80 |
| Estimated Property Damage Total = \$ | 113570.00 |

Accident Type Summary

| Accident Type | Number of Crashes | Percent of Total |
|--------------------------------|------------------------------|-----------------------------|
| ANIMAL | 1 | 3.45 |
| LEFT TURN, DIFFERENT ROADWAYS | 1 | 3.45 |
| LEFT TURN, SAME ROADWAY | 4 | 13.79 |
| OTHER COLLISION WITH VEHICLE | 1 | 3.45 |
| PEDESTRIAN | 2 | 6.90 |
| RAN OFF ROAD - LEFT | 2 | 6.90 |
| RAN OFF ROAD - RIGHT | 1 | 3.45 |
| REAR END, SLOW OR STOP | 13 | 44.83 |
| REAR END, TURN | 1 | 3.45 |
| RIGHT TURN, DIFFERENT ROADWAYS | 1 | 3.45 |
| SIDESWIPE, SAME DIRECTION | 2 | 6.90 |

Injury Summary

| Injury Type | Number of Injuries | Percent of Total |
|--------------------------|-------------------------------|-----------------------------|
| Fatal Injuries | 1 | 5.88 |
| Class A Injuries | 0 | 0.00 |
| Class B Injuries | 3 | 17.65 |
| Class C Injuries | 13 | 76.47 |
| Total Non-Fatal Injuries | 16 | 94.12 |
| Total Injuries | 17 | 100.00 |

North Carolina Department of Transportation
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Monthly Summary

| Month | Number of Crashes | Percent of Total |
|--------------|--------------------------|-------------------------|
| Jan | 3 | 10.34 |
| Feb | 1 | 3.45 |
| Mar | 1 | 3.45 |
| Apr | 2 | 6.90 |
| May | 3 | 10.34 |
| Jun | 1 | 3.45 |
| Jul | 1 | 3.45 |
| Aug | 1 | 3.45 |
| Sep | 4 | 13.79 |
| Oct | 2 | 6.90 |
| Nov | 8 | 27.59 |
| Dec | 2 | 6.90 |

Daily Summary

| Day | Number of Crashes | Percent of Total |
|------------|--------------------------|-------------------------|
| Mon | 5 | 17.24 |
| Tue | 8 | 27.59 |
| Wed | 4 | 13.79 |
| Thu | 6 | 20.69 |
| Fri | 2 | 6.90 |
| Sat | 4 | 13.79 |
| Sun | 0 | 0.00 |

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Hourly Summary

| Hour | Number of Crashes | Percent of Total |
|-------------|--------------------------|-------------------------|
| 0000-0059 | 0 | 0.00 |
| 0100-0159 | 0 | 0.00 |
| 0200-0259 | 0 | 0.00 |
| 0300-0359 | 0 | 0.00 |
| 0400-0459 | 0 | 0.00 |
| 0500-0559 | 0 | 0.00 |
| 0600-0659 | 0 | 0.00 |
| 0700-0759 | 2 | 6.90 |
| 0800-0859 | 3 | 10.34 |
| 0900-0959 | 3 | 10.34 |
| 1000-1059 | 3 | 10.34 |
| 1100-1159 | 1 | 3.45 |
| 1200-1259 | 2 | 6.90 |
| 1300-1359 | 0 | 0.00 |
| 1400-1459 | 3 | 10.34 |
| 1500-1559 | 2 | 6.90 |
| 1600-1659 | 4 | 13.79 |
| 1700-1759 | 1 | 3.45 |
| 1800-1859 | 0 | 0.00 |
| 1900-1959 | 2 | 6.90 |
| 2000-2059 | 0 | 0.00 |
| 2100-2159 | 0 | 0.00 |
| 2200-2259 | 2 | 6.90 |
| 2300-2359 | 1 | 3.45 |

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Light and Road Conditions Summary

| Condition | Dry | Wet | Other | Total |
|------------------|------------|------------|--------------|--------------|
| Day | 22 | 2 | 0 | 24 |
| Dark | 5 | 0 | 0 | 5 |
| Other | 0 | 0 | 0 | 0 |
| Total | 27 | 2 | 0 | 29 |

Object Struck Summary

| Object Type | Times Struck | Percent of Total |
|--------------------|---------------------|-------------------------|
| ANIMAL | 1 | 14.29 |
| DITCH | 2 | 28.57 |
| PEDESTRIAN | 4 | 57.14 |

Vehicle Type Summary

| Vehicle Type | Number Involved | Percent of Total |
|-------------------------------------|------------------------|-------------------------|
| COMMERCIAL BUS | 1 | 1.82 |
| LIGHT TRUCK (MINI-VAN, PANEL) | 3 | 5.45 |
| MOPED | 1 | 1.82 |
| PASSENGER CAR | 29 | 52.73 |
| PEDESTRIAN | 2 | 3.64 |
| PICKUP | 2 | 3.64 |
| SINGLE UNIT TRUCK (2-AXLE, 6-TIRE) | 1 | 1.82 |
| SINGLE UNIT TRUCK (3 OR MORE AXLES) | 1 | 1.82 |
| SPORT UTILITY | 10 | 18.18 |
| TRACTOR/SEMI-TRAILER | 1 | 1.82 |
| UNKNOWN | 2 | 3.64 |
| VAN | 2 | 3.64 |

North Carolina Department of Transportation
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Yearly Totals Summary

Accident Totals

| Year | Total Accidents | Fatal Accidents | Injury Accidents | Property Damage Only Accidents |
|-------|-----------------|-----------------|------------------|--------------------------------|
| 2012 | 2 | 0 | 1 | 1 |
| 2013 | 5 | 0 | 2 | 3 |
| 2014 | 2 | 0 | 1 | 1 |
| 2015 | 6 | 1 | 2 | 3 |
| 2016 | 9 | 0 | 3 | 6 |
| 2017 | 5 | 0 | 1 | 4 |
| Total | 29 | 1 | 10 | 18 |

Injury Totals

| Year | Fatal Injuries | Class A, B, or C Injuries |
|-------|----------------|---------------------------|
| 2012 | 0 | 1 |
| 2013 | 0 | 2 |
| 2014 | 0 | 1 |
| 2015 | 1 | 8 |
| 2016 | 0 | 3 |
| 2017 | 0 | 1 |
| Total | 1 | 16 |

Miscellaneous Totals

| Year | Property Damage | EPDO Index |
|-------|-----------------|------------|
| 2012 | \$ 5600 | 9.40 |
| 2013 | \$ 17020 | 19.80 |
| 2014 | \$ 5500 | 9.40 |
| 2015 | \$ 29500 | 96.60 |
| 2016 | \$ 40400 | 31.20 |
| 2017 | \$ 15550 | 12.40 |
| Total | \$ 113570 | 178.80 |

Type of Accident Totals

| Year | Left Turn | Right Turn | Rear End | Run Off Road & | | | |
|------|-----------|------------|----------|----------------|-------|------------|-------|
| | | | | Fixed Object | Angle | Side Swipe | Other |
| 2012 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 2013 | 3 | 0 | 2 | 0 | 0 | 0 | 0 |
| 2014 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

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| Year | Left Turn | Right Turn | Rear End | Run Off Road & Fixed Object | Angle | Side Swipe | Other |
|-------------|------------------|-------------------|-----------------|--|--------------|-------------------|--------------|
| 2015 | 1 | 0 | 3 | 0 | 0 | 0 | 2 |
| 2016 | 0 | 1 | 5 | 1 | 0 | 1 | 1 |
| 2017 | 1 | 0 | 2 | 1 | 0 | 0 | 1 |
| Total | 5 | 1 | 14 | 3 | 0 | 2 | 4 |

**North Carolina Department of Transportation
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Strip Diagram

| Features | Milepost | Crash IDs |
|--------------------------------------|----------|--|
| NC 86 AIRPORT MARTIN LUTHER KING | 0.00 | 103789753 104787036 104916592 104960372 103658135 104739486 104231275 |
| | 0.01 | 103615919 104939320 105122231 105070487 |
| | 0.02 | |
| | 0.03 | 103974257 103895656 |
| | 0.04 | |
| | 0.05 | 104357865 |
| | 0.06 | |
| | 0.07 | |
| | 0.08 | |
| | 0.09 | |
| BROOKSTONE | 0.10 | 105001607 |
| | 0.11 | |
| | 0.12 | |
| | 0.13 | |
| | 0.14 | |
| | 0.15 | |
| | 0.16 | |
| NORTH PARK HOMESTEAD PARK | 0.17 | |
| | 0.18 | |
| | 0.19 | |
| | 0.20 | |
| | 0.21 | |
| | 0.22 | |
| | 0.23 | |
| | 0.24 | |
| | 0.25 | |
| | 0.26 | |
| | 0.27 | |
| | 0.28 | |
| | 0.29 | |
| | 0.30 | |
| | 0.31 | |
| | 0.32 | |
| | 0.33 | |
| | 0.34 | |
| | 0.35 | |
| | 0.36 | |
| | 0.37 | |
| | 0.38 | |
| | 0.39 | |
| | 0.40 | |
| | 0.41 | |
| | 0.42 | |

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| Features | Milepost | Crash IDs |
|---------------------------|----------|-----------------------|
| | 0.43 | |
| | 0.44 | |
| | 0.45 | |
| | 0.46 | 104547004 |
| | 0.47 | |
| | 0.48 | |
| | 0.49 | |
| | 0.50 | |
| | 0.51 | |
| | 0.52 | |
| | 0.53 | |
| | 0.54 | |
| WEAVER DAIRY | 0.55 | 104647893 103919401 |
| | 0.56 | |
| | 0.57 | |
| | 0.58 | 105056747 |
| | 0.59 | |
| | 0.60 | |
| | 0.61 | |
| | 0.62 | |
| | 0.63 | |
| | 0.64 | 104334314 |
| | 0.65 | |
| | 0.66 | |
| | 0.67 | |
| | 0.68 | |
| | 0.69 | |
| | 0.70 | |
| | 0.71 | |
| | 0.72 | |
| | 0.73 | |
| | 0.74 | |
| | 0.75 | 104945771 |
| | 0.76 | |
| | 0.77 | |
| | 0.78 | |
| | 0.79 | |
| Railroad Crossing:735174D | 0.80 | 103561360 104518638 |
| SR 2251 MERIN | 0.81 | |
| | 0.82 | |
| | 0.83 | |
| | 0.84 | |
| | 0.85 | |
| | 0.86 | |
| | 0.87 | |
| | 0.88 | |

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| Features | Milepost | Crash IDs |
|-------------------------|-----------------|-----------------------|
| | 0.89 | |
| | 0.90 | |
| | 0.91 | |
| | 0.92 | 104262188 |
| | 0.93 | |
| | 0.94 | |
| | 0.95 | 104534865 |
| HEARTHSTONE | 0.96 | |
| | 0.97 | 105210296 |
| | 0.98 | |
| | 0.99 | 104868982 |
| SR 1834 SEWELL SCHOOL | 1.00 | 104496293 105076528 |

**North Carolina Department of Transportation
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Strip Analysis Report**

Study Criteria

| Study Name | Log No. | PH No. | TIP No. | K/A Cf. | B/C Cf. | ADT | ADT Route |
|------------------|---------|--------|---------|---------|---------|------|-----------|
| HOMESTEADRDSTRIP | | | | 76.8 | 8.4 | 8100 | 40001777 |

| Request Date | Courier Service | Phone No. | Ext. | Fax No. |
|--------------|-----------------|-----------|------|---------|
| | | | | |

| County | | | Municipality | | | | | | |
|--------|------|------|---------------|------|------------|------------|-----------|-------|--|
| Name | Code | Div. | Name | Code | Y-Line Ft. | Begin Date | End Date | Years | |
| ORANGE | 68 | 7 | All and Rural | | 0 | 9/1/2012 | 8/31/2017 | 5.00 | |

| Location Text | Requestor |
|---|-----------|
| SR 1777 (Homestead Rd) from NC 86 (MLK Blvd) to SR 1843 (Seawell School Rd) | |

| Included Accidents | Old MP | New MP | Type |
|--------------------|--------|--------|------|
| 104357865 | 0 | 0.047 | R |
| 104547004 | 0.55 | 0.46 | R |
| 103561360 | 0.7 | 0.8 | R |
| 104518638 | 0.785 | 0.8 | R |

| Excluded Accidents |
|--------------------|
| 103641192 |
| 103772632 |
| 104009220 |
| 104770000 |
| 104998725 |

Fiche Roads

| Name | Code |
|-----------|----------|
| SR 1777 | 40001777 |
| HOMESTEAD | 50014324 |
| SR 1104 | 40001104 |
| DAIRYLAND | 50034636 |

Strip Road

| Name | Code | Begin MP | End MP | Miles | Kilometers |
|---------|----------|----------|--------|-------|------------|
| SR 1777 | 40001777 | 0.000 | 1.000 | 1.000 | 1.609 |