

TRAFFIC IMPACT STUDY

For

WPT Industrial REIT Proposed Warehouse

Property Located at:

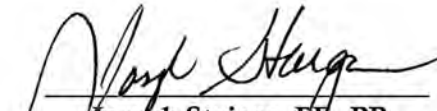
13 Mountainview Avenue
Section 74.07 – Block 1 – Lots 33 & 36
Town of Orangetown, Rockland County, NY

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INTRODUCTION

It is proposed to construct a warehouse on a parcel of land currently developed with a church, located along the westbound side of Mountainview Avenue to the west of its intersection with Route 303 in the Town of Orangetown, Rockland County, New York, see Figure 1 in Appendix A. The site is designated as Section 74.07, Block 1, Lots 33 & 36. The existing use consists of an approximately 106,000 SF vacated church. It is proposed to raze the existing site and construct a 175,760 SF warehouse building (The Project). Access to the site is currently provided via one (1) full movement driveway along Mountainview Avenue. It is proposed to construct a right turn in/right turn out driveway along Route 303 and to reconstruct a full movement driveway along Mountainview Avenue. Parking will be provided via one hundred fifty (150) on-site parking spaces (plus thirty (30) land banked parking spaces) as well as thirty (30) trailer storage spaces.

Dynamic Traffic, LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.
- Existing traffic data was collected by Creighton Manning via manual turning movement (MTM) counts during the weekday AM and weekday PM peak periods at the following intersections:
 - Route 303 & Mountainview Avenue
 - Route 303 & Orangeburg Road (CR 20)/Chase Bank Driveway
 - Route 303 & Route 340/South Greenbush Road
 - Route 303 & Glenshaw Street
- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution.
- Capacity analyses were conducted for the Existing, No Build, Build, Design Horizon Year No Build, and Design Horizon Year Build conditions for the study intersections.
- The proposed point of ingress and egress was inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.
- The site plan as designed was reviewed for sufficiency in accommodating large wheel base vehicles such as delivery trucks, refuse trucks, and emergency vehicles.
- The parking layout and supply was assessed based on accepted design standards, local requirements, and demand experienced at similar developments.

EXISTING CONDITIONS

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

Route 303 is a Principal Arterial roadway under the jurisdiction of the New York State Department of Transportation (NYSDOT). In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides two travel lanes in each direction with a general north/south orientation. On-street parking is not permitted along either side of the roadway while curb is provided along portions of the west side of the roadway and sidewalk is not provided along either side of the roadway. Route 303 provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along Route 303 in the vicinity of The Project are primarily commercial.

Route 340 is a Minor Arterial roadway under the jurisdiction of the NYSDOT. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides one travel lane in each direction with a general east/west orientation. On-street parking is not permitted along either of the roadway, while curb and sidewalk are provided along the southern side of the roadway. Route 340 provides a curved horizontal alignment approximately 300' east of its intersection with Route 303 and a relatively flat vertical alignment. The land uses along Route 340 in the vicinity of The Project are primarily residential.

Orangeburg Road (CR 20) is a Minor Arterial roadway under the jurisdiction of Rockland County. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides two travel lanes in each direction with a general east/west orientation. On-street parking is not permitted along either side of the roadway. Curb is provided along both sides of the roadway, while sidewalk is provided along the southern side of the roadway. Orangeburg Road provides a straight horizontal alignment and a downgrade from west to east towards the intersection with Route 303. The land uses along Orangeburg Road in the vicinity of The Project are primarily institutional (church and college).

Mountainview Avenue is a local roadway under the jurisdiction of the Town of Orangetown. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction with a general east/west orientation. On-street parking is not permitted along either side of the roadway while curb and sidewalk are provided along the north side of the roadway and portions of the south side of the roadway. Mountainview Avenue provides a curved horizontal alignment and a hilly vertical alignment. The land uses along Mountainview Avenue in the vicinity of The Project are a mixture of commercial and residential.

South Greenbush Road is a local roadway under the jurisdiction of the NYSDOT immediately adjacent to the intersection with Route 303. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction with a general east/west orientation. It should be noted that South Greenbush Road provides a 90° horizontal curve to the south approximately 220' west of its intersection with Route 303 to continue as a generally north/south roadway. On-street parking is not permitted along either side of the roadway. Curb is provided along both sides of the roadway, while sidewalk is provided along the southern side of the roadway. South

Greenbush Road provides a curved horizontal alignment and a relatively flat vertical alignment. The land uses along South Greenbush Road in the vicinity of The Project are a mixture of commercial, institutional (library), and residential.

Glenshaw Street is a local roadway under the jurisdiction of the Town of Orangetown. In the vicinity of the site the posted speed limit is 30 MPH and the roadway provides one travel lane in each direction with a general east/west orientation. On-street parking is not permitted along either side of the roadway. Curb is provided along both sides of the roadway, while sidewalk is not provided along either side. Glenshaw Street provides a straight horizontal alignment and a relatively flat vertical alignment. The land uses along Glenshaw Street in the vicinity of The Project are primarily industrial.

Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted by Creighton Manning on Thursday, June 2, 2022 from 7:00 to 9:00 AM and from 4:00 to 6:00 PM at the following intersections:

- Route 303 & Mountainview Avenue
- Route 303 & Orangeburg Road (CR 20)/Chase Bank Driveway
- Route 303 & Route 340/South Greenbush Road
- Route 303 & Glenshaw Street

Review of the collected traffic data reveals that the weekday morning peak street hour (PSH) occurs between 7:45 - 8:45 AM and the weekday evening PSH occurs between 4:15 - 5:15 PM. It should be noted that traffic impacts associated with the COVID-19 pandemic were in effect as of the time of the traffic counts. As a result, current traffic volumes on the surrounding roadways are atypically low at this time and may not be representative of “typical” traffic conditions. Consistent with data published by Creighton Manning within the *Traffic Impact Study for Proposed WPT Industrial REIT Warehouse Development*, dated September 1, 2022, an adjustment factor was applied to the weekday evening peak hour volumes to account for this effect. The current weekday morning peak hour volumes were found to be higher than the historical traffic volumes conducted along Route 303 and as such, no adjustment factor was applied. Figure 2, located in Appendix A, shows the existing peak hour traffic volumes at the study intersections. All traffic counts are contained in Appendix B.

Existing Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a “qualitative” evaluation of capacity based upon certain “quantitative” calculations related to empirical values, such as traffic volume and intersection control.

At signalized intersections, factors that affect the various approach capacities include width of approach, number of lanes, signal “green time”, turning percentages, truck volumes, etc. However, delays cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the Level of Service “F” range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle lengths; a particular traffic movement experiences a long red time; or progressive movement for a particular lane group is poor. Table I describes the level of service ranges for signalized intersections.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table II describes the level of service ranges for unsignalized (stop controlled) intersections.

Table I
Level of Service Criteria
for Signalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
A	0.0 to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	greater than 80.0

Table II
Level of Service Criteria
for Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
c	15.1 to 25.0
d	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0

It should be noted that the analyses within the *Highway Capacity Manual* assume a random arrival for all the movements, which may not be the case if an adjacent traffic signal is present that platoons vehicles, as there are multiple signalized intersections present along the Route 303 corridor.

All capacity analyses were performed utilizing Synchro 11 software. It should be noted that the existing percentage of trucks and peak hour factors were used in the existing analysis. Table III summarizes the existing levels of service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

Table III
Existing Levels of Service

Intersection	Direction/ Movement		AM PSH	PM PSH
Route 303 & Mountainview Avenue	EB	LTR	E (59)	D (37)
	WB	LTR	F (86)	F (84)
	NB	LTR	D (49)	E (74)
	SB	LTR	C (31)	D (42)
	Overall		D (46)	E (59)
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	E (61)	E (69)
		R	A (6)	A (5)
	WB	LT	E (57)	E (70)
		R	A (0)	A (0)
	NB	LTR	B (16)	C (28)
	SB	LTR	C (22)	D (36)
	Overall		C (22)	C (35)
Route 303 & Route 340/ South Greenbush Road	EB	LTR	D (35)	C (25)
	WB	LTR	D (47)	E (56)
	NB	LTR	B (16)	C (24)
	SB	LTR	A (9)	B (18)
	Overall		B (19)	C (29)
Route 303 & Glenshaw Street	EB	LR	c (19)	c (22)
	NB	L	a (9)	b (13)

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

The following are discussions pertaining to each of the existing intersections analyzed.

Route 303 & Mountainview Avenue

Mountainview Avenue intersects Route 303 to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from NYSDOT which indicates that a three-phase cycle is utilized with a 110-second background cycle length. It should be noted that the Route 303 approaches operate in a split-phased format. The traffic signal timing directive is included in Appendix B. The northbound and southbound approaches of Route 303 each provide a shared left turn/through lane and a shared through/right turn lane. The eastbound and westbound approaches of Mountainview Avenue each provide a shared left turn/through/right turn lane.

A review of the existing analysis reveals that the intersection operates at levels of service “E” or better and all movements operate at levels of service “E” or better during the analyzed peak periods, with the exception of the westbound approach which operates at level of service “F” during both peak hours. See Table III for the individual movement levels of service and delays.

Route 303 & Orangeburg Road (CR 20)/Driveway

Orangeburg Road intersects Route 303 opposite a full movement driveway to a Chase Bank located at 333 NY-303, Orangeburg, NY, to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from NYSDOT which indicates that a four-phase 110-second background cycle is utilized (the traffic signal timing directive is included in Appendix B).

Both the northbound and southbound approaches of Route 303 provide a shared left turn/through lane and a shared through/right turn lane. The eastbound approach of Orangeburg Road provides a shared left turn/through lane and a dedicated right turn lane. The westbound approach of the driveway provides a shared left turn/through lane and a dedicated right turn lane.

A review of the existing analysis reveals that the intersection operates at levels of service “C” and all movements operate at levels of service “E” or better during the analyzed peak periods. See Table III for the individual movement levels of service and delays.

Route 303 & Route 340/South Greenbush Road

Route 340 intersects Route 303 opposite South Greenbush Road to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from NYSDOT which indicates that a three-phase 110 second background cycle is utilized (the traffic signal timing directive is included in Appendix B).

Both the northbound and southbound approaches of Route 303 provide a shared left turn/through lane and a shared through/right turn lane. The eastbound approach of South Greenbush Road and westbound approach of Route 340 both provide a shared left turn/through/right turn lane.

A review of the existing analysis reveals that the intersection operates at levels of service “C” or better and all movements operate at levels of service “E” or better during the analyzed peak periods. See Table III for the individual movement levels of service and delays.

Route 303 & Glenshaw Street

Glenshaw Street intersects Route 303 to form an unsignalized T-intersection with the eastbound approach of Glenshaw Street operating under stop control. The northbound approach of Route 303 provides a shared left turn/through lane and a dedicated through lane, while the southbound approach provides a dedicated through lane and a shared through/right turn lane. The eastbound approach of Glenshaw Street provides a shared left turn/right turn lane.

A review of the existing analysis reveals that all movements operate at levels of service “C” or better during the analyzed peak periods. See Table III for the individual movement levels of service and delays.

FUTURE CONDITIONS

Traffic volumes and operational analyses were developed for both the 2023 No Build and Build conditions. It should be noted that a meeting with NYSDOT and this office was held on March 25, 2021, where it was requested to additionally analyze 20 years after the No Build year (2043), which will be referred to as the Design Horizon Year for the remainder of this report. As such traffic volumes and operational analyses were developed for both the Design Horizon Year No Build and Design Horizon Year Build conditions. The No Build conditions provide a baseline for assessing the impact of the site development traffic on the roadway system. The process of developing the No Build, Build, Design Horizon Year No Build, and Design Horizon Year Build traffic volumes and the subsequent analyses is outlined below.

It should be noted that a subsequent review letter for the adjacent 125 and 155 Greenbush Road project, prepared by AKRF, dated February 26, 2021, requests use of a 1% background growth rate per year, as opposed to the 0.5% background growth rate utilized within *Traffic Impact Study* for 125 and 155 Greenbush Road, prepared by Maser Consulting and dated November, 2020. Therefore, in order to account for the difference in growth rate, the No Build volumes shown in Figure 4 were then grown utilizing a growth rate of 2%.

Through consultation with the Town of Orangetown Planning Board staff, there are six developments in the vicinity of the site that has been approved but not yet constructed that are identified as a potential significant traffic generator, shown below. The Adjacent Development Traffic Volumes passing the site are shown on Figure 3.

- The redevelopment of 125 Greenbush Road and development of 155 Greenbush Road to include a total of 543,000 SF of warehouse space;
- The reoccupancy of 700 Bradley Hill Road, which consists of 117,325 SF of warehouse space;
- The development of 200-400 Oritani Drive with an Amazon warehouse facility;
- An industrial development known as Instrumentation Laboratory, located at 526 Route 303;
- A retail development known as “S” Corner Plaza, located at the southeast corner of Route 303 and Route 304;
- A 170,737 SF warehouse development known as Linen Choice Warehouse, located along Glenshaw Street.

In order to generate the 2043 Design Horizon Year No Build traffic volumes, a background growth rate of 1.0% was applied to the No Build traffic volumes for a period of twenty (20) years, consistent with the growth rate utilized by Creighton Manning within the *Traffic Impact Study for Proposed WPT Industrial REIT Warehouse Development*, dated September 1, 2022. Figure 11, in Appendix A, illustrates the Design Horizon Year No Build traffic volumes.

Traffic Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code 150 – Warehousing in the Institute of Transportation Engineers’ (ITE) publication, *Trip Generation, 11th Edition*. This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country. It should also be noted that consistent with the trip generation data, the truck trip generation rates and directional distributions were referenced from the ITE publication, *Trip Generation, 11th Edition*.

Table IV
Trip Generation Considering Car and Truck Traffic

Land Use	Trip Type	AM PSH			PM PSH		
		In	Out	Total	In	Out	Total
175,760 SF Warehouse	Cars	33	10	43	12	33	45
	Trucks	2	0	2	1	2	3
	Total	35	10	45	13	35	48

As mentioned previously, the site was previously occupied by a church which has trip generation potential if it were reoccupied. The following Table V compares the proposed use to the existing trip generation potential of the site.

Table V
Existing vs. Proposed Trip Generation Comparison

Land Use	AM PSH			PM PSH		
	In	Out	Total	In	Out	Total
Existing 106,000 SF Church	22	15	37	23	29	52
Proposed 175,760 SF Warehouse	35	10	45	13	35	48
Difference	+13	-5	+8	-10	+6	-4

As shown in Table V above, it is anticipated that 8 additional trips during the weekday morning peak hour and 4 fewer trips during the weekday evening peak hour are anticipated to access the site from the adjacent roadway network with the proposed redevelopment. However, no credit was taken for the existing use of the site and all trip generation was considered an increase over vacant land. This accounts for a “worst case scenario” from a traffic impact perspective.

Furthermore, it should be noted that the number of new trips falls below the industry accepted standard of a significant increase in traffic of 100 trips. Based on *Transportation Impact Analysis for Site Development*, published by the ITE “it is suggested that a transportation impact study be conducted whenever a proposed development will generate 100 or more added (new) trips during the adjacent roadways’ peak hour or the development’s peak hour.”

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns.

Located in Appendix A, Figure 5 illustrates the percent distribution of car site generated trips, Figure 6 illustrates the car site generated volumes, Figure 7 illustrates the percent distribution of truck site generated trips, Figure 8 illustrates the truck site generated volumes, and Figure 9 illustrates the total site generated volumes assigned to the study area network. The site generated volumes were added to the 2023 No Build traffic volumes and 2043 Design Horizon Year No Build traffic volumes to generate the 2023 Build traffic volumes and 2043 Design Horizon Year Build traffic volumes, which are shown in Figures 10 and 12, respectively.

Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build, Build, Design Horizon Year No Build, and Design Horizon Year Build conditions and are summarized in Table VI and VII below.

Table VI
2023 Future Levels of Service

Intersection	Direction/ Movement		AM PSH			PM PSH		
			No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	D (47)	D (48)	D (40)	C (35)	D (39)	D (38)
		TR	-	-	C (23)	-	-	B (15)
	WB	LTR	F (91)	F (91)	F (90)	F (141)	F (147)	F (114)
	NB	LTR	E (61)	E (64)	E (64)	F (94)	F (98)	F (98)
	SB	LTR	D (39)	D (39)	D (39)	E (73)	E (76)	E (76)
	Overall		D (54)	E (56)	D (53)	F (87)	F (90)	F (85)
Route 303 & Orangeburg Road (CR 20) / Driveway	EB	LT	E (62)	E (63)	-	E (71)	E (71)	-
		R	A (6)	A (6)	-	A (6)	A (7)	-
	WB	LT	E (57)	E (57)	-	E (70)	E (70)	-
		R	A (0)	A (0)	-	A (0)	A (0)	-
	NB	LTR	B (18)	B (18)	-	C (30)	C (31)	-
	SB	LTR	C (29)	C (30)	-	D (40)	D (41)	-
	Overall		C (26)	C (26)	-	D (38)	D (38)	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	C (34)	C (34)	-	C (25)	C (25)	-
	WB	LTR	D (46)	D (46)	-	E (62)	E (63)	-
	NB	LTR	B (17)	B (18)	-	C (27)	C (27)	-
	SB	LTR	B (10)	B (10)	-	C (25)	C (26)	-
	Overall		B (20)	B (20)	-	C (34)	C (34)	-
Route 303 & Glenshaw Street	EB	LR	d (28)	d (29)	-	e (40)	e (42)	-
	NB	L	b (10)	b (10)	-	b (14)	b (14)	-
		T	a (1)	a (1)	-	a (1)	a (1)	-
Route 303 & Site Driveway	EB	R	-	b (11)	-	-	b (12)	-
Mountainview Avenue & Site Driveway	EB	L	-	a (8)	-	-	a (8)	-
	SB	LR	-	b (12)	-	-	b (12)	-

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

Table VII
2043 Future Levels of Service

Intersection	Direction/ Movement		AM PSH			PM PSH		
			No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	E (56)	E (59)	D (41)	D (41)	D (46)	D (40)
		TR	-	-	C (27)	-	-	B (19)
	WB	LTR	F (137)	F (138)	F (151)	F (283)	F (293)	F (257)
	NB	LTR	F (122)	F (129)	F (129)	F (193)	F (197)	F (197)
	SB	LTR	E (63)	E (64)	E (64)	F (154)	F (160)	F (160)
	Overall		F (94)	F (99)	F (97)	F (177)	F (181)	F (175)
Route 303 & Orangeburg Road (CR 20) / Driveway	EB	LT	E (66)	E (67)	-	F (88)	F (89)	-
		R	B (11)	B (11)	-	B (12)	B (12)	-
	WB	LT	E (58)	E (58)	-	E (73)	E (73)	-
		R	A (0)	A (0)	-	A (1)	A (1)	-
	NB	LTR	C (30)	C (32)	-	E (65)	E (66)	-
	SB	LTR	D (35)	D (36)	-	E (64)	E (69)	-
Route 303 & Route 340/ South Greenbush Road	Overall		C (33)	C (34)	-	E (63)	E (65)	-
	EB	LTR	C (31)	C (31)	-	C (26)	C (26)	-
	WB	LTR	D (50)	D (50)	-	F (123)	F (124)	-
	NB	LTR	C (24)	C (24)	-	C (31)	C (31)	-
	SB	LTR	B (19)	B (19)	-	F (88)	F (91)	-
	Overall		C (26)	C (27)	-	E (77)	E (79)	-
Route 303 & Glenshaw Street	EB	LR	f (64)	f (67)	-	f (185)	f (194)	-
	NB	L	b (12)	b (12)	-	c (17)	c (17)	-
		T	a (1)	a (1)	-	a (2)	a (2)	-
Route 303 & Site Driveway	EB	R	-	b (11)	-	-	b (13)	-
Mountainview Avenue & Site Driveway	EB	L	-	a (8)	-	-	a (8)	-
	SB	LR	-	b (13)	-	-	b (13)	-

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

Route 303 & Mountainview Avenue

With the addition of site generated traffic, the intersection is anticipated to operate at overall No Build level of service “F”. Additionally, the westbound and northbound approaches are anticipated to operate at level of service “F” during both peak hours, and the southbound approach is anticipated to operate at level of service “F” during the weekday evening peak hour. It is important to note that these operational conditions are already present under No Build conditions, indicating that the increased delays are a function of the magnitude of existing traffic volumes rather than the addition of the site traffic. The additional site traffic at the intersection represents approximately 1.3% of the peak hour traffic.

It should be noted that it is proposed by The Project to construct intersection improvements in the future. Specifically, Mountainview Avenue is proposed to be widened to the Town's desirable cartway width of 40' as well as construct a dedicated left turn lane and a shared through/right turn lane for the eastbound approach of the intersection. These improvements are analyzed in the Build with Mitigation scenario. In the Build with Mitigation scenario, the eastbound and westbound approaches are generally anticipated to decrease delays. See Tables VI and VII for the individual movement levels of service and delays.

Route 303 & Orangeburg Road (CR 20)/Driveway

With the addition of site generated traffic, the intersection is anticipated to continue to operate at No Build levels of service "E" or better during the studied peak periods. Additionally, each movement is anticipated to continue to generally operate at No Build levels of service with little to no changes in delay. See Tables VI and VII for the individual movement levels of service and delays.

Route 303 & Route 340/South Greenbush Road

With the addition of site generated traffic, the intersection is anticipated to continue to operate at No Build levels of service "E" or better during the studied peak periods. Additionally, each movement is anticipated to continue to operate at No Build levels of service "D" or better with little to no changes in delay, with the exception of the westbound and southbound approaches which are anticipated to continue to operate at No Build level of service "F" during the weekday evening peak hour. The additional site traffic at the intersection represents approximately 0.5% of the peak hour traffic. See Tables VI and VII for the individual movement levels of service and delays.

Route 303 & Glenshaw Street

With the addition of site generated traffic, all movements at the intersection are anticipated to continue to operate at No Build levels of service "C" or better during the studied peak periods, with the exception of the eastbound approach which is anticipated to continue to operate at No Build level of service "F" during both peak hours. See Tables VI and VII for the individual movement levels of service and delays.

A Traffic Signal Warrant Analysis for the intersection of Route 303 and Glenshaw Street was prepared and is included in Appendix D. This analysis presents a comprehensive investigation of traffic conditions and physical characteristics required to determine the necessity for a signal installation and to determine a proper design and control utilizing the Traffic Signal Warrants as set forth in the Manual on Uniform Traffic Control Devices for Street and Highways, 2009 Edition (MUTCD). The following warrants were reviewed:

- Warrant 1 – Eight-Hour Vehicular Volume
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak Hour

In order to provide a conservative analysis, the 2043 Design Horizon Year was utilized for the traffic signal warrant analyses contained herein. The traffic volumes at the subject intersection were adjusted and grown according to the methodologies outlined in this report. As shown in the analysis worksheets contained in Appendix D, the subject intersection satisfies Warrant 3. However, as the intersection only meets Warrant 3 during one peak hour, the installation of a traffic signal is not recommended.

Route 303 & Site Driveway

The site driveway is proposed to intersect Route 303 to form an unsignalized T-intersection with the eastbound approach of the site driveway operating under stop control. The eastbound approach of the site driveway is proposed to provide a dedicated right turn lane. The northbound approach of Route 303 provides two dedicated through lanes, while the southbound approach provides a dedicated through lane and a shared through/right turn lane.

As designed, the individual intersection movements are anticipated to operate at levels of service “B” during the studied peak hours. See Tables VI and VII for the individual movement levels of service and delays.

Mountainview Avenue & Site Driveway

The site driveway is proposed to intersect Mountainview Avenue to form an unsignalized T-intersection with the southbound approach of the site driveway operating under stop control. The eastbound and westbound approaches of Mountainview Avenue are proposed to provide a shared left turn/through lane and a shared through/right turn lane, respectively. The southbound approach of the site driveway is proposed to provide a single lane for left and right turns.

As designed, the individual intersection movements are anticipated to operate at levels of service “B” or better during the studied peak hours. See Tables VI and VII for the individual movement levels of service and delays.

Queue Analysis

Queue length conditions at the study intersections were analyzed under the No Build and Build conditions. The 50th and 95th percentile queues for each study peak hour are summarized in Tables VIII, IX, X and XI below.

**Table VIII
2023 Queue Analysis - 50th Percentile**

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	130'	135'	40'	95'	114'	41'
		TR	-	-	-	55'	-	-	27'
	WB	LTR	-	122'	124'	123'	238'	242'	245'
	NB	LTR	-	345'	353'	353'	457'	463'	463'
	SB	LTR	-	243'	245'	245'	394'	405'	405'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	162'	167'	-	202'	203'	-
		R	-	-	-	-	12'	13'	-
	WB	LT	-	17'	17'	-	46'	46'	-
	NB	LTR	-	88'	91'	-	171'	172'	-
	SB	LTR	-	191'	192'	-	302'	306'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	36'	36'	-	33'	33'	-
	WB	LTR	-	150'	153'	-	307'	308'	-
	NB	LTR	-	148'	150'	-	204'	205'	-
	SB	LTR	-	69'	70'	-	191'	196'	-
Route 303 & Glenshaw Street	EB	LR	-	-	-	-	-	-	-
	NB	L	-	-	-	-	-	-	-
Route 303 & Site Driveway	EB	R	-	-	-	-	-	-	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	-	-	-	-	-

**Table IX
2023 Queue Analysis - 95th Percentile**

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	220'	227'	82'	171'	196'	84'
		TR	-	-	-	120'	-	-	81'
	WB	LTR	-	254'	259'	256'	412'	417'	399'
	NB	LTR	-	468'	480'	480'	585'	590'	590'
	SB	LTR	-	319'	321'	321'	526'	538'	538'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	238'	247'	-	343'	346'	-
		R	-	54'	54'	-	64'	65'	-
	WB	LT	-	43'	43'	-	93'	93'	-
	NB	LTR	-	162'	164'	-	231'	234'	-
	SB	LTR	-	240'	241'	-	293'	294'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	68'	68'	-	69'	69'	-
	WB	LTR	-	232'	237'	-	530'	533'	-
	NB	LTR	-	240'	243'	-	266'	267'	-
	SB	LTR	-	143'	145'	-	274'	286'	-
Route 303 & Glenshaw Street	EB	LR	-	33'	33'	-	103'	105'	-
	NB	L	-	10'	10'	-	5'	5'	-
Route 303 & Site Driveway	EB	R	-	-	-	-	-	3'	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	-	-	-	5'	-

Table X
2043 Queue Analysis - 50th Percentile

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	174'	178'	50'	126'	147'	50'
		TR	-	-	-	80'	-	-	45'
	WB	LTR	-	183'	186'	191'	351'	355'	345'
	NB	LTR	-	489'	504'	504'	645'	652'	652'
	SB	LTR	-	322'	325'	325'	569'	580'	580'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	193'	198'	-	256'	258'	-
		R	-	37'	38'	-	51'	52'	-
	WB	LT	-	17'	17'	-	47'	47'	-
	NB	LTR	-	192'	200'	-	341'	346'	-
	SB	LTR	-	245'	247'	-	434'	444'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	43'	43'	-	41'	41'	-
	WB	LTR	-	202'	205'	-	497'	500'	-
	NB	LTR	-	222'	225'	-	271'	272'	-
	SB	LTR	-	140'	146'	-	263'	270'	-
Route 303 & Glenshaw Street	EB	LR	-	-	-	-	-	-	-
	NB	L	-	-	-	-	-	-	-
Route 303 & Site Driveway	EB	R	-	-	-	-	-	-	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	-	-	-	-	-

**Table XI
2043 Queue Analysis - 95th Percentile**

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	321'	331'	98'	214'	260'	97'
		TR	-	-	-	156'	-	-	108'
	WB	LTR	-	342'	347'	352'	537'	543'	532'
	NB	LTR	-	590'	595'	595'	607'	609'	609'
	SB	LTR	-	461'	466'	466'	706'	718'	718'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	309'	324'	-	448'	452'	-
		R	-	112'	113'	-	122'	122'	-
	WB	LT	-	43'	43'	-	100'	100'	-
	NB	LTR	-	381'	420'	-	364'	369'	-
	SB	LTR	-	253'	253'	-	296'	296'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	79'	79'	-	83'	83'	-
	WB	LTR	-	303'	309'	-	724'	728'	-
	NB	LTR	-	329'	331'	-	349'	350'	-
	SB	LTR	-	264'	269'	-	276'	275'	-
Route 303 & Glenshaw Street	EB	LR	-	80'	83'	-	283'	288'	-
	NB	L	-	15'	15'	-	8'	8'	-
Route 303 & Site Driveway	EB	R	-	-	-	-	-	5'	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	-	-	-	5'	-

Route 303 & Mountainview Avenue

With the addition of site generated traffic, there is anticipated to be a maximum increase of approximately 2 vehicles in the 50th and 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. It should be noted that in the Build with Mitigation scenario, the eastbound approach queues decreased by approximately 6 vehicles. See Tables VIII, IX, X and XI for the individual movement 50th and 95th percentile queues.

Route 303 & Orangeburg Road (CR 20)/Driveway

With the addition of site generated traffic, there is anticipated to be a maximum increase of approximately 2 vehicles in the 50th and 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. See Tables VIII, IX, X and XI for the individual movement 50th and 95th percentile queues.

Route 303 & Route 340/South Greenbush Road

With the addition of site generated traffic, there is anticipated to be a minimal increase in the 50th and 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. See Tables VIII, IX, X and XI for the individual movement 50th and 95th percentile queues.

Route 303 & Glenshaw Street

With the addition of site generated traffic, there is anticipated to be a minimal increase in the 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. It should be noted that Synchro analyses do not provide 50th percentile queues for unsignalized intersections. See Tables IX and XI for the individual movement 95th percentile queues.

Route 303 & Site Driveway

As designed, the site driveway is anticipated to operate with a 95th percentile queue length of 5 feet. The driveway provides significant throat length prior to the first on-site intersection. Therefore, it is not anticipated that this queue will impact on-site circulation. It should be noted that Synchro analyses do not provide 50th percentile queues for unsignalized intersections. See Tables IX and XI for the individual movement 95th percentile queues.

Mountainview Avenue & Site Driveway

As designed, the site driveway is anticipated to operate with a 95th percentile queue length of 5 feet. The driveway provides significant throat length prior to the first on-site intersection. Therefore, it is not anticipated that this queue will impact on-site circulation. It should be noted that Synchro analyses do not provide 50th percentile queues for unsignalized intersections. See Tables IX and XI for the individual movement 95th percentile queues.

ALTERNATE FUTURE CONDITIONS

The tenant for the proposed warehouse is undisclosed, therefore, a larger traffic generating use could occupy the proposed buildings. As such, an Alternate Analysis was conducted using LUC 156 – High-Cube Parcel Hub Warehouse, as requested by the Town of Orangetown Planning Board.

Alternate Traffic Generation

Trip generation projections for the Alternate Analysis were prepared utilizing trip generation research data as published under LUC 156 – High-Cube Parcel Hub Warehouse in the ITE publication, *Trip Generation, 11th Edition*. This publication sets forth trip generation rates based on traffic counts conducted at research sites throughout the country. It should also be noted that the ITE publication, *Trip Generation, 11th Edition* does not publish truck trip generation rates and directional distributions for LUC 156. As such, the truck trip generation rates and directional distributions for LUC 150 was applied.

Table XII
Alternate Trip Generation

Land Use	Trip Type	AM PSH			PM PSH		
		In	Out	Total	In	Out	Total
175,760 SF High-Cube Parcel Hub Warehouse	Cars	59	57	116	71	33	104
	Trucks	3	4	7	5	3	8
	Total	62	61	123	76	36	112

The site generated trips for the Alternate Analysis were assigned to the adjacent roadways based on the distributions outlined previously. Alternate traffic volumes are included in Appendix E for reference.

Alternate Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build, Build, Design Horizon Year No Build, and Design Horizon Year Build conditions and are summarized in Table XIII and XIV below. All alternate capacity analysis worksheets are contained in Appendix F.

Table XIII
2023 Future Levels of Service

Intersection	Direction / Movement		AM PSH			PM PSH		
			No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	D (47)	E (63)	D (43)	C (35)	D (40)	D (39)
		TR	-	-	C (25)	-	-	B (15)
	WB	LTR	F (91)	F (91)	F (94)	F (141)	F (152)	F (119)
	NB	LTR	E (61)	E (67)	E (67)	F (94)	F (110)	F (110)
	SB	LTR	D (39)	D (41)	D (41)	E (73)	E (76)	E (76)
	Overall		D (54)	E (59)	E (56)	F (87)	F (96)	F (91)
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	E (62)	E (63)	-	E (71)	E (73)	-
		R	A (6)	A (6)	-	A (6)	A (7)	-
	WB	LT	E (57)	E (57)	-	E (70)	E (71)	-
		R	A (0)	A (0)	-	A (0)	A (0)	-
	NB	LTR	B (18)	B (19)	-	C (30)	C (33)	-
	SB	LTR	C (29)	C (31)	-	D (40)	D (41)	-
	Overall		C (26)	C (27)	-	D (38)	D (39)	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	C (34)	C (34)	-	C (25)	C (25)	-
	WB	LTR	D (46)	D (46)	-	E (62)	E (63)	-
	NB	LTR	B (17)	B (18)	-	C (27)	C (27)	-
	SB	LTR	B (10)	B (11)	-	C (25)	C (27)	-
	Overall		B (20)	C (20)	-	C (34)	C (35)	-
Route 303 & Glenshaw Street	EB	LR	d (28)	d (30)	-	e (40)	e (44)	-
	NB	L	b (10)	b (10)	-	b (14)	b (14)	-
		T	a (1)	a (1)	-	a (1)	a (1)	-
Route 303 & Site Driveway	EB	R	-	b (11)	-	-	b (12)	-
Mountainview Avenue & Site Driveway	EB	L	-	a (8)	-	-	a (8)	-
	SB	LR	-	b (13)	-	-	b (13)	-

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

Table XIV
2043 Future Levels of Service

Intersection	Direction/ Movement		AM PSH			PM PSH		
			No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	E (56)	F (82)	D (44)	D (41)	D (47)	D (40)
		TR	-	-	C (28)	-	-	B (19)
	WB	LTR	F (137)	F (142)	F (170)	F (283)	F (303)	F (266)
	NB	LTR	F (122)	F (135)	F (135)	F (193)	F (211)	F (211)
	SB	LTR	E (63)	E (70)	E (70)	F (154)	F (160)	F (160)
	Overall		F (94)	F (106)	F (102)	F (177)	F (189)	F (183)
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	E (66)	E (67)	-	F (88)	F (98)	-
		R	B (11)	B (11)	-	B (12)	B (12)	-
	WB	LT	E (58)	E (58)	-	E (73)	E (73)	-
		R	A (0)	A (0)	-	A (1)	A (1)	-
	NB	LTR	C (30)	C (34)	-	E (65)	E (72)	-
	SB	LTR	D (35)	D (36)	-	E (64)	E (69)	-
	Overall		C (33)	D (35)	-	E (63)	E (69)	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	C (31)	C (31)	-	C (26)	C (26)	-
	WB	LTR	D (50)	D (50)	-	F (123)	F (130)	-
	NB	LTR	C (24)	C (24)	-	C (31)	C (32)	-
	SB	LTR	B (19)	C (20)	-	F (88)	F (93)	-
	Overall		C (26)	C (27)	-	E (77)	F (81)	-
Route 303 & Glenshaw Street	EB	LR	f (64)	f (72)	-	f (185)	f (216)	-
	NB	L	b (12)	b (12)	-	c (17)	c (17)	-
		T	a (1)	a (2)	-	a (2)	a (2)	-
Route 303 & Site Driveway	EB	R	-	b (12)	-	-	b (13)	-
Mountainview Avenue & Site Driveway	EB	L	-	a (8)	-	-	a (8)	-
	SB	LR	-	b (14)	-	-	b (14)	-

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

Route 303 & Mountainview Avenue

With consideration of the alternative scenario, the intersection is anticipated to operate at overall No Build level of service “F”. Additionally, the eastbound, westbound and northbound approaches are anticipated to operate at level of service “F” during the weekday morning peak hour. Further, the westbound, northbound and southbound approaches are anticipated to operate at level of service “F” during the weekday evening peak hour. It is important to note that these operational conditions are already present under No Build conditions, indicating that the increased delays are a function of the magnitude of existing traffic volumes rather than the addition of the site traffic. The additional site traffic at the intersection represents approximately 3.2% of the peak hour traffic.

As noted previously, it is proposed by The Project to construct intersection improvements in the future. Specifically, Mountainview Avenue is proposed to be widened to the Town's desirable cartway width of 40' as well as construct a dedicated left turn lane and a shared through/right turn lane for the eastbound approach of the intersection. These improvements are analyzed in the Build with Mitigation scenario. In the Build with Mitigation scenario, the eastbound and westbound approaches are generally anticipated to decrease delays. See Tables XIII and XIV for the individual movement levels of service and delays.

Route 303 & Orangeburg Road (CR 20)/Driveway

With consideration of the alternative scenario, the intersection is anticipated to continue to operate at No Build levels of service "E" or better during the studied peak periods. Additionally, each movement is anticipated to continue to generally operate at No Build levels of service with little to no changes in delay. See Tables XIII and XIV for the individual movement levels of service and delays.

Route 303 & Route 340/South Greenbush Road

With consideration of the alternative scenario, the intersection is anticipated to continue to operate at No Build levels of service "C" during the weekday morning peak hour and at level of service "F" during the weekday evening peak hour. It should be noted that only an additional four (4) seconds of delay are added to the overall intersection delay during the weekday evening peak hour during Design Horizon Year conditions. Additionally, each movement is anticipated to continue to operate at No Build levels of service "D" or better with little to no changes in delay, with the exception of the westbound and southbound approaches which are anticipated to continue to operate at No Build level of service "F" during the weekday evening peak hour. The additional site traffic at the intersection represents approximately 1.3% of the peak hour traffic. See Tables XIII and XIV for the individual movement levels of service and delays.

Route 303 & Glenshaw Street

With consideration of the alternative scenario, all movements at the intersection are anticipated to continue to operate at No Build levels of service "C" or better during the studied peak periods, with the exception of the eastbound approach which is anticipated to continue to operate at No Build level of service "F" during both peak hours. See Tables XIII and XIV for the individual movement levels of service and delays.

An alternate Traffic Signal Warrant Analysis for the intersection of Route 303 and Glenshaw Street was prepared and is included in Appendix G. This analysis presents a comprehensive investigation of traffic conditions and physical characteristics required to determine the necessity for a signal installation and to determine a proper design and control utilizing the Traffic Signal Warrants as set forth in the Manual on Uniform Traffic Control Devices for Street and Highways, 2009 Edition (MUTCD). The following warrants were reviewed:

- Warrant 1 – Eight-Hour Vehicular Volume
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak Hour

In order to provide a conservative analysis, the 2043 Design Horizon Year was utilized for the traffic signal warrant analyses contained herein. The traffic volumes at the subject intersection were adjusted and grown according to the methodologies outlined in this report. As shown in the analysis worksheets contained in Appendix G, the subject intersection satisfies Warrant 3. However, as the intersection only meets Warrant 3 during one peak hour, the installation of a traffic signal is not recommended.

Route 303 & Site Driveway

As designed, the individual intersection movements are anticipated to operate at levels of service “B” during the studied peak hours. See Tables XIII and XIV for the individual movement levels of service and delays.

Mountainview Avenue & Site Driveway

As designed, the individual intersection movements are anticipated to operate at levels of service “B” or better during the studied peak hours. See Tables XIII and XIV for the individual movement levels of service and delays.

Alternate Queue Analysis

Alternate queue length conditions at the study intersections were analyzed under the No Build and Build conditions. The 50th and 95th percentile queues for each study peak hour are summarized in Tables XV, XVI, XVII and XVIII below.

Table XV
2023 Queue Analysis - 50th Percentile

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	130'	164'	52'	95'	115'	42'
		TR	-	-	-	65'	-	-	27'
	WB	LTR	-	122'	126'	127'	238'	251'	234'
	NB	LTR	-	345'	358'	358'	457'	489'	489'
	SB	LTR	-	243'	255'	255'	394'	405'	405'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	162'	171'	-	202'	214'	-
		R	-	-	-	-	12'	13'	-
	WB	LT	-	17'	17'	-	46'	46'	-
	NB	LTR	-	88'	93'	-	171'	180'	-
	SB	LTR	-	191'	200'	-	302'	306'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	36'	36'	-	33'	33'	-
	WB	LTR	-	150'	155'	-	307'	319'	-
	NB	LTR	-	148'	152'	-	204'	207'	-
	SB	LTR	-	69'	70'	-	191'	198'	-
Route 303 & Glenshaw Street	EB	LR	-	-	-	-	-	-	-
	NB	L	-	-	-	-	-	-	-
Route 303 & Site Driveway	EB	R	-	-	-	-	-	-	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	-	-	-	-	-

**Table XVI
2023 Queue Analysis - 95th Percentile**

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	220'	303'	102'	171'	198'	86'
		TR	-	-	-	133'	-	-	81'
	WB	LTR	-	254'	264'	265'	412'	426'	410'
	NB	LTR	-	468'	492'	492'	585'	601'	601'
	SB	LTR	-	319'	335'	335'	526'	538'	538'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	238'	251'	-	343'	368'	-
		R	-	54'	54'	-	64'	65'	-
	WB	LT	-	43'	43'	-	93'	93'	-
	NB	LTR	-	162'	168'	-	231'	243'	-
	SB	LTR	-	240'	248'	-	293'	293'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	68'	68'	-	69'	69'	-
	WB	LTR	-	232'	239'	-	530'	550'	-
	NB	LTR	-	240'	246'	-	266'	270'	-
	SB	LTR	-	143'	155'	-	274'	291'	-
Route 303 & Glenshaw Street	EB	LR	-	33'	35'	-	103'	110'	-
	NB	L	-	10'	10'	-	5'	5'	-
Route 303 & Site Driveway	EB	R	-	-	3'	-	-	3'	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	8'	-	-	5'	-

**Table XVII
2043 Queue Analysis - 50th Percentile**

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	174'	208'	62'	126'	148'	50'
		TR	-	-	-	88'	-	-	45'
	WB	LTR	-	183'	190'	201'	351'	365'	355'
	NB	LTR	-	489'	514'	514'	645'	676'	676'
	SB	LTR	-	322'	338'	338'	569'	580'	580'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	193'	201'	-	256'	286'	-
		R	-	37'	39'	-	51'	52'	-
	WB	LT	-	17'	17'	-	47'	47'	-
	NB	LTR	-	192'	127'	-	341'	407'	-
	SB	LTR	-	245'	254'	-	434'	444'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	43'	43'	-	41'	41'	-
	WB	LTR	-	202'	207'	-	497'	516'	-
	NB	LTR	-	222'	227'	-	271'	275'	-
	SB	LTR	-	140'	156'	-	263'	272'	-
Route 303 & Glenshaw Street	EB	LR	-	-	-	-	-	-	-
	NB	L	-	-	-	-	-	-	-
Route 303 & Site Driveway	EB	R	-	-	-	-	-	-	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	-	-	-	-	-

**Table XVIII
2043 Queue Analysis - 95th Percentile**

Intersection	Direction/ Movement		Storage Length	AM PSH			PM PSH		
				No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
Route 303 & Mountainview Avenue	EB	L	195'	321'	393'	117'	214'	265'	99'
		TR	-	-	-	166'	-	-	108'
	WB	LTR	-	342'	351'	361'	537'	553'	543'
	NB	LTR	-	590'	594'	594'	607'	614'	614'
	SB	LTR	-	461'	482'	482'	706'	718'	718'
Route 303 & Orangeburg Road (CR 20)/ Driveway	EB	LT	-	309'	332'	-	448'	473'	-
		R	-	112'	116'	-	122'	122'	-
	WB	LT	-	43'	43'	-	100'	101'	-
	NB	LTR	-	381'	462'	-	364'	391'	-
	SB	LTR	-	253'	251'	-	296'	296'	-
Route 303 & Route 340/ South Greenbush Road	EB	LTR	-	79'	79'	-	83'	83'	-
	WB	LTR	-	303'	314'	-	724'	744'	-
	NB	LTR	-	329'	332'	-	349'	354'	-
	SB	LTR	-	264'	287'	-	276'	276'	-
Route 303 & Glenshaw Street	EB	LR	-	80'	85'	-	283'	303'	-
	NB	L	-	15'	15'	-	8'	8'	-
Route 303 & Site Driveway	EB	R	-	-	3'	-	-	3'	-
Mountainview Avenue & Site Driveway	SB	LR	-	-	8'	-	-	5'	-

Route 303 & Mountainview Avenue

With consideration of the alternative scenario, there is anticipated to be a maximum increase of approximately 3 vehicles in the 50th and 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. It should be noted that in the Build with Mitigation scenario, the eastbound approach queues decreased by approximately 9 vehicles. See Tables XV, XVI, XVII and XVIII for the individual movement 50th and 95th percentile queues.

Route 303 & Orangeburg Road (CR 20)/Driveway

With consideration of the alternative scenario, there is anticipated to be a maximum increase of approximately 3 vehicles in the 50th and 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. See Tables XV, XVI, XVII and XVIII for the individual movement 50th and 95th percentile queues.

Route 303 & Route 340/South Greenbush Road

With consideration of the alternative scenario, there is anticipated to be a minimal increase in the 50th and 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. See Tables XV, XVI, XVII and XVIII for the individual movement 50th and 95th percentile queues.

Route 303 & Glenshaw Street

With consideration of the alternative scenario, there is anticipated to be maximum increase of approximately 1 vehicle in the 95th percentile queues for all movements at the intersection. It is not anticipated that the increase in queues will have a detrimental impact on the operation of the intersection. It should be noted that Synchro analyses do not provide 50th percentile queues for unsignalized intersections. See Tables XVI and XVIII for the individual movement 95th percentile queues.

Route 303 & Site Driveway

As designed, the site driveway is anticipated to operate with a 95th percentile queue length of 3 feet. The driveway provides significant throat length prior to the first on-site intersection. Therefore, it is not anticipated that this queue will impact on-site circulation. It should be noted that Synchro analyses do not provide 50th percentile queues for unsignalized intersections. See Tables XVI and XVIII for the individual movement 95th percentile queues.

Mountainview Avenue & Site Driveway

As designed, the site driveway is anticipated to operate with a 95th percentile queue length of 8 feet. The driveway provides significant throat length prior to the first on-site intersection. Therefore, it is not anticipated that this queue will impact on-site circulation. It should be noted that Synchro analyses do not provide 50th percentile queues for unsignalized intersections. See Tables XVI and XVIII for the individual movement 95th percentile queues.

SITE PLAN

Site Access and Circulation

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to The Project will be provided via one (1) right turn in/right turn out driveway along Route 303 and one (1) reconstructed full movement driveway along Mountainview Avenue.

The newly constructed parking areas will be served by aisles with a width of 25 feet within the passenger car circulation area, which satisfies the Ordinance requirement. These aisles will provide for two-way circulation and 90-degree parking. Additionally, the truck circulation area will be served by a single two-way aisle with a width of 75 feet. Review of the site plan design indicates that the site can sufficiently accommodate, within paved areas, the anticipated tractor trailer activity which is appropriately separated from passenger vehicle circulation and parking.

Parking

The site as proposed provides 180 parking spaces (inclusive of 30 land banked spaces) which is consistent with typical industry standards which provide 1 space per 1,000 SF or 176 spaces for a warehouse of this size.

The site will provide car parking spaces which will have dimensions of 9' by 18' which meets the Ordinance requirements. The proposed trailer storage spaces and loading spaces will both have dimensions of 13' by 60' which are consistent with accepted engineering design standards and will adequately accommodate the proposed design vehicle.

FINDINGS & CONCLUSIONS

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed 175,760 SF warehouse development is projected to generate 33 passenger car entering trips and 10 passenger car exiting trips during the weekday morning peak hour, and 12 passenger car entering trips and 33 passenger car exiting trips during the evening peak hour.
- The proposed 175,760 SF warehouse development is projected to generate 2 truck entering trips and 0 truck exiting trips during the weekday morning peak hour, and 1 truck entering trip and 2 truck exiting trips during the weekday evening peak hour.
- Access to the site is proposed to be provided via one (1) right turn in/right turn out driveway along Route 303 southbound and one (1) full movement driveway along Mountainview Avenue.
- With the addition of site generated traffic, the intersection of Route 303 and Mountainview Avenue is anticipated to continue to operate at overall level of service “F” during both peak hours. Additionally, multiple movements are anticipated to continue to operate at No Build level of service “F” during both peak hours. It should be noted that it is proposed by The Project to improve the eastbound approach in the future and construct a dedicated left turn lane and a shared through/right turn lane which is analyzed in the Build with Mitigation scenario. In the Build with Mitigation scenario, the eastbound and westbound approaches are generally anticipated to decrease delays.
- With the addition of site generated traffic, the intersection of Route 303 and Orangeburg Road (CR 20)/driveway is anticipated to continue to operate at overall No Build levels of service “E” or better during the peak hours studied. Additionally, each movement is anticipated to continue to generally operate at No Build levels of service with little to no changes in delay.
- With the addition of site generated traffic, the intersection of Route 303 and Route 340/South Greenbush Road is anticipated to continue to operate at overall No Build levels of service “E” or better during the peak hours studied. Additionally, each movement is anticipated to continue to operate at No Build levels of service “D” or better with little no changes in delay, with the exception of the westbound and southbound approaches which are anticipated to continue to operate at No Build level of service “F” during the weekday evening peak hour.
- With the addition of site generated traffic, all movements at the intersection of Route 303 and Glenshaw Street are anticipated to operate at No Build levels of service “C” or better during the peak hours studied, with the exception of the eastbound approach which is anticipated to continue to operate at No Build level of service “F” during both peak hours. It should be noted that the intersection’s anticipated 2043 Design Horizon Year traffic volumes do satisfy Warrant 3 – Peak Hour as outlined in the MUTCD. However, as the intersection only meets Warrant 3 during one peak hour, the installation of a traffic signal is not recommended.
- As designed, the individual intersection movements of Route 303 and the site driveway are anticipated to operate at levels of service “B” or better during the peak hours studied.

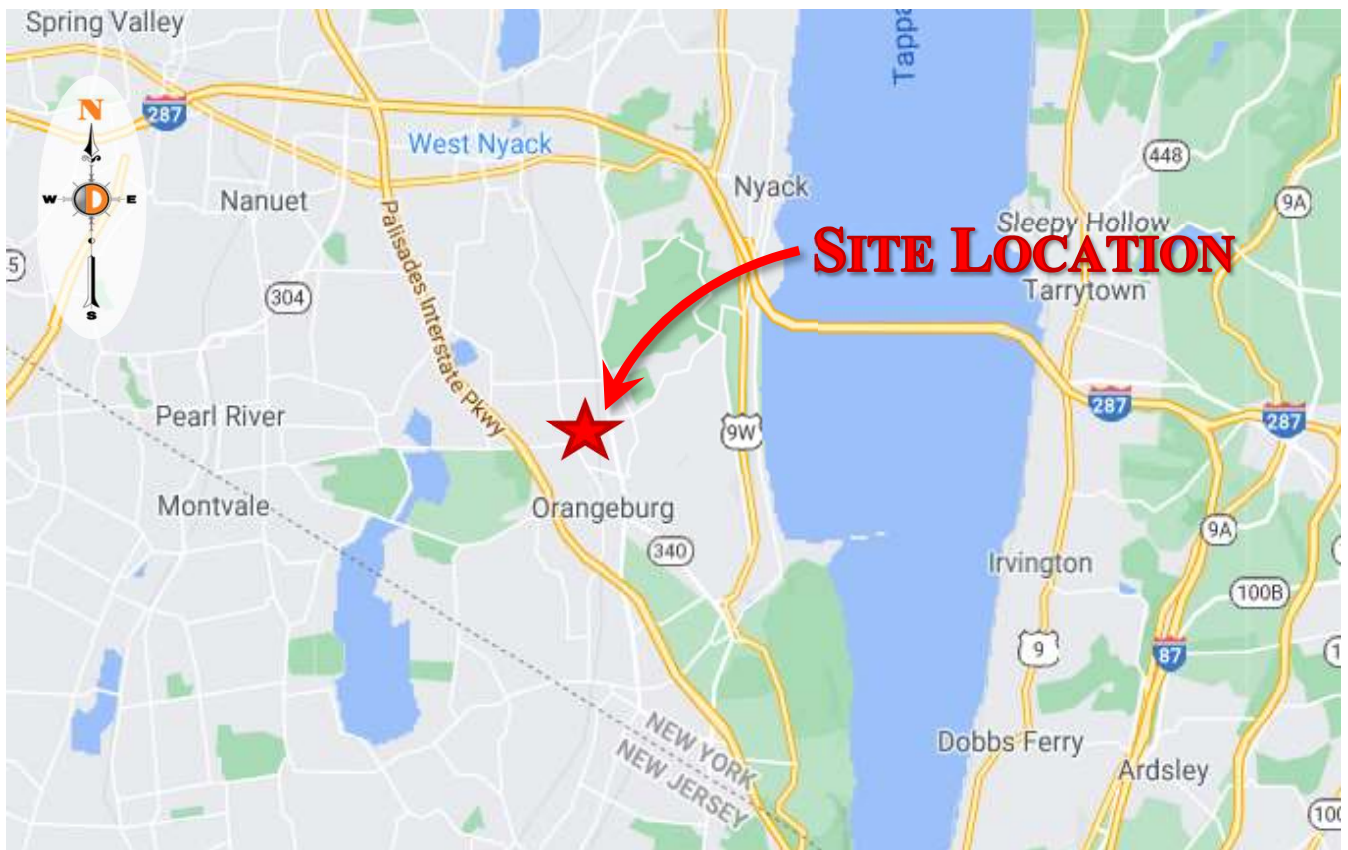
- As designed, the individual intersection movements of Mountainview Avenue and the site driveway are anticipated to operate at levels of service “B” or better during the peak hours studied.
- As proposed, The Project’s site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.
- The proposed parking supply and design is sufficient to support the projected demand based on typical industry standards.

Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic, LLC that the adjacent street system of the Town of Orangetown and NYSDOT will not experience any significant degradation in operating conditions with the construction of The Project. The site driveway is located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project’s needs.

Appendix A

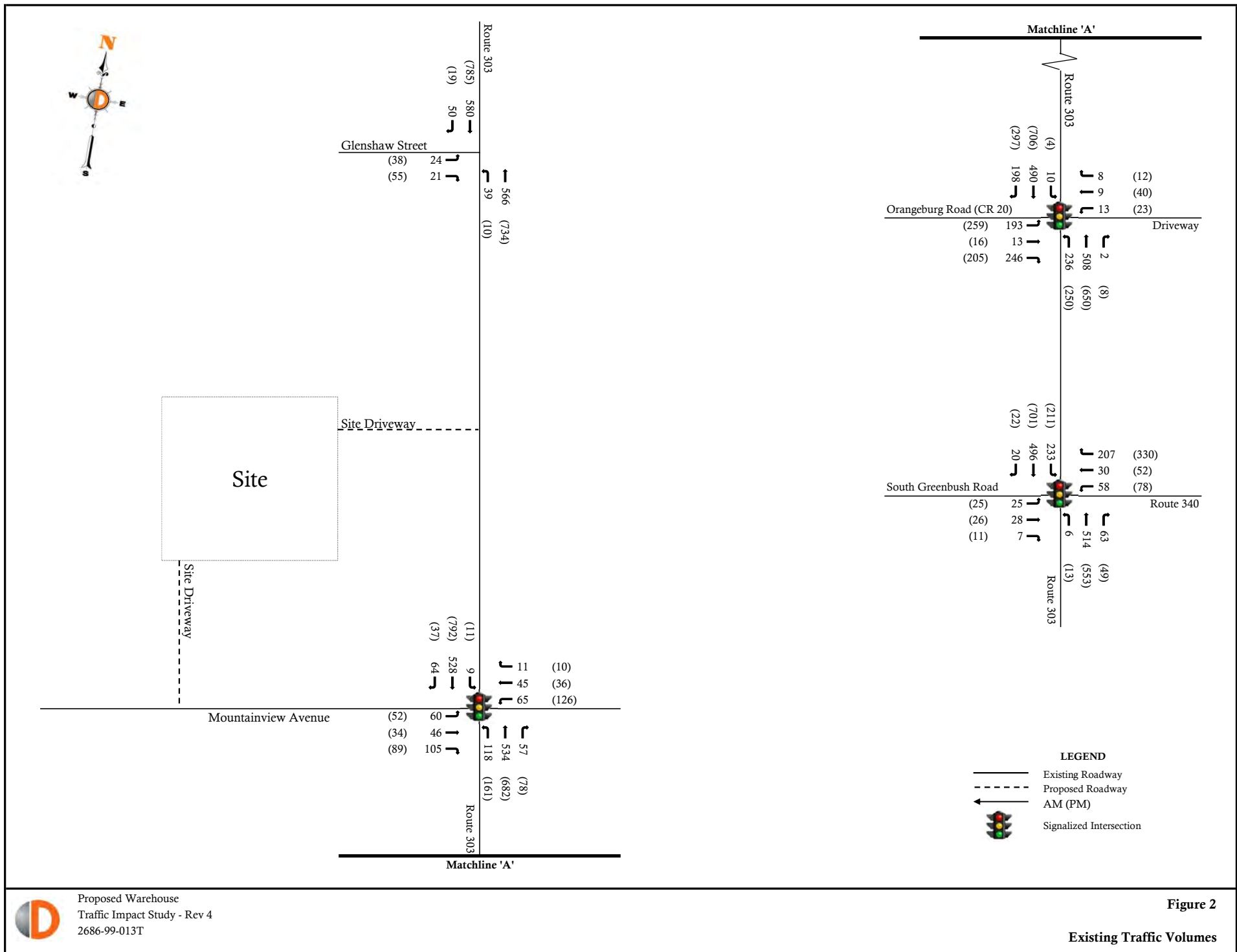
Traffic Volume Figures

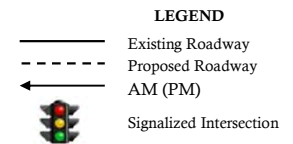
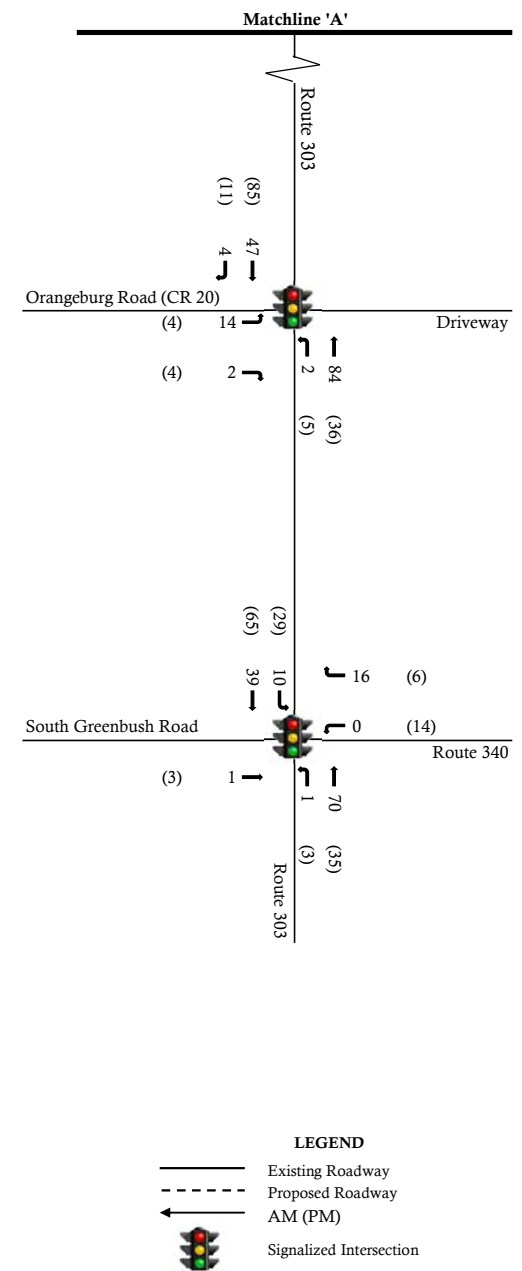
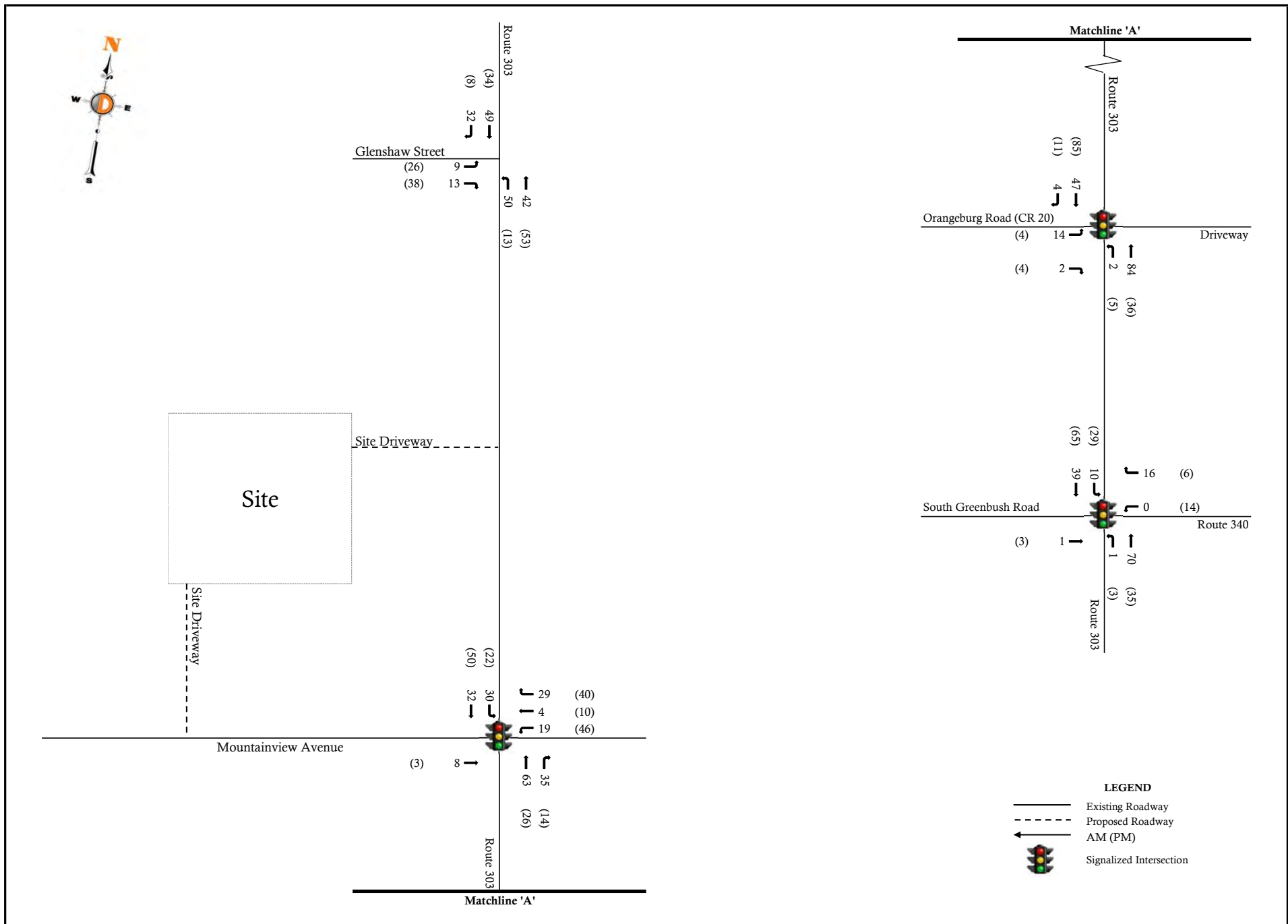


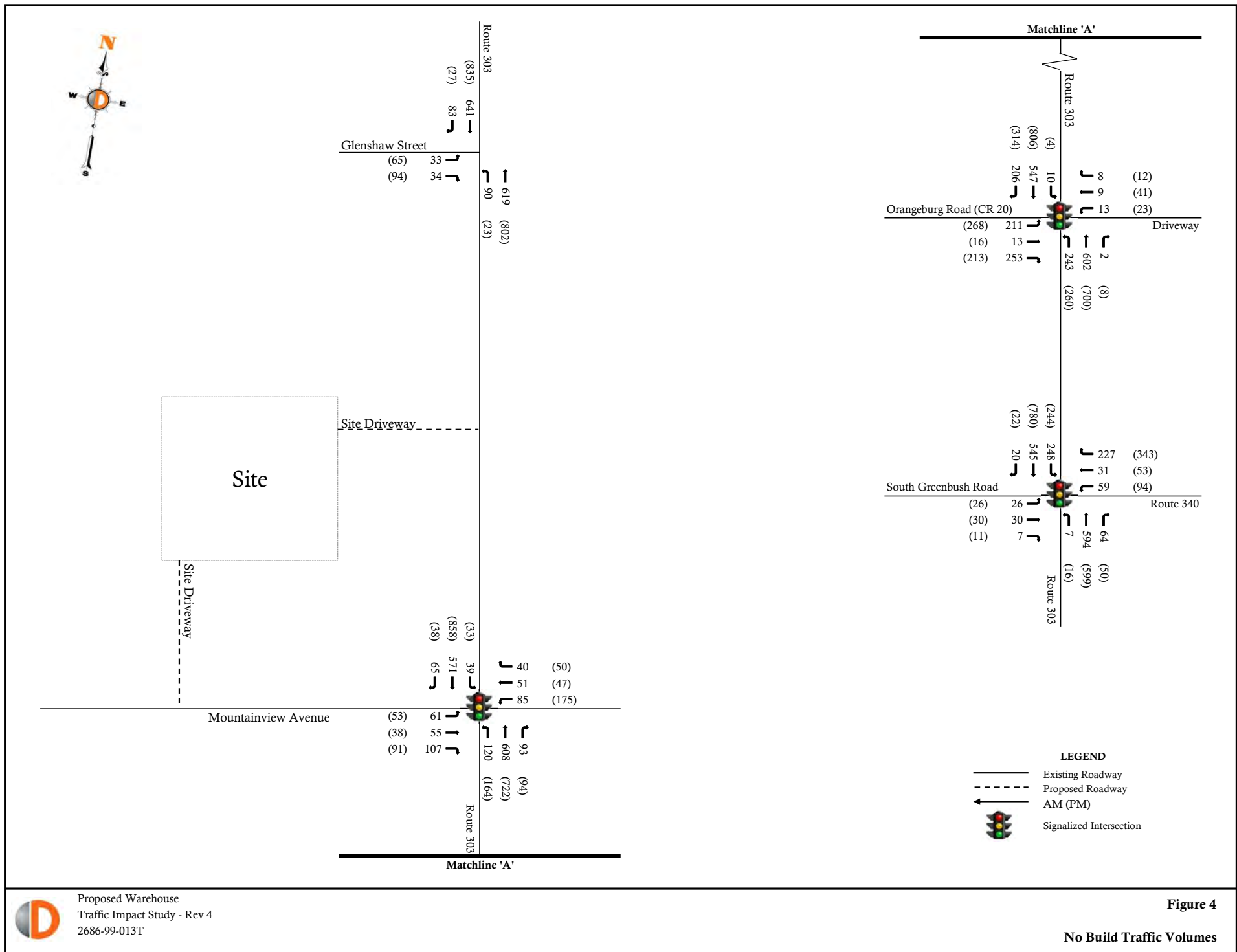
Proposed Warehouse
Traffic Impact Study - Rev 4
2686-99-013T

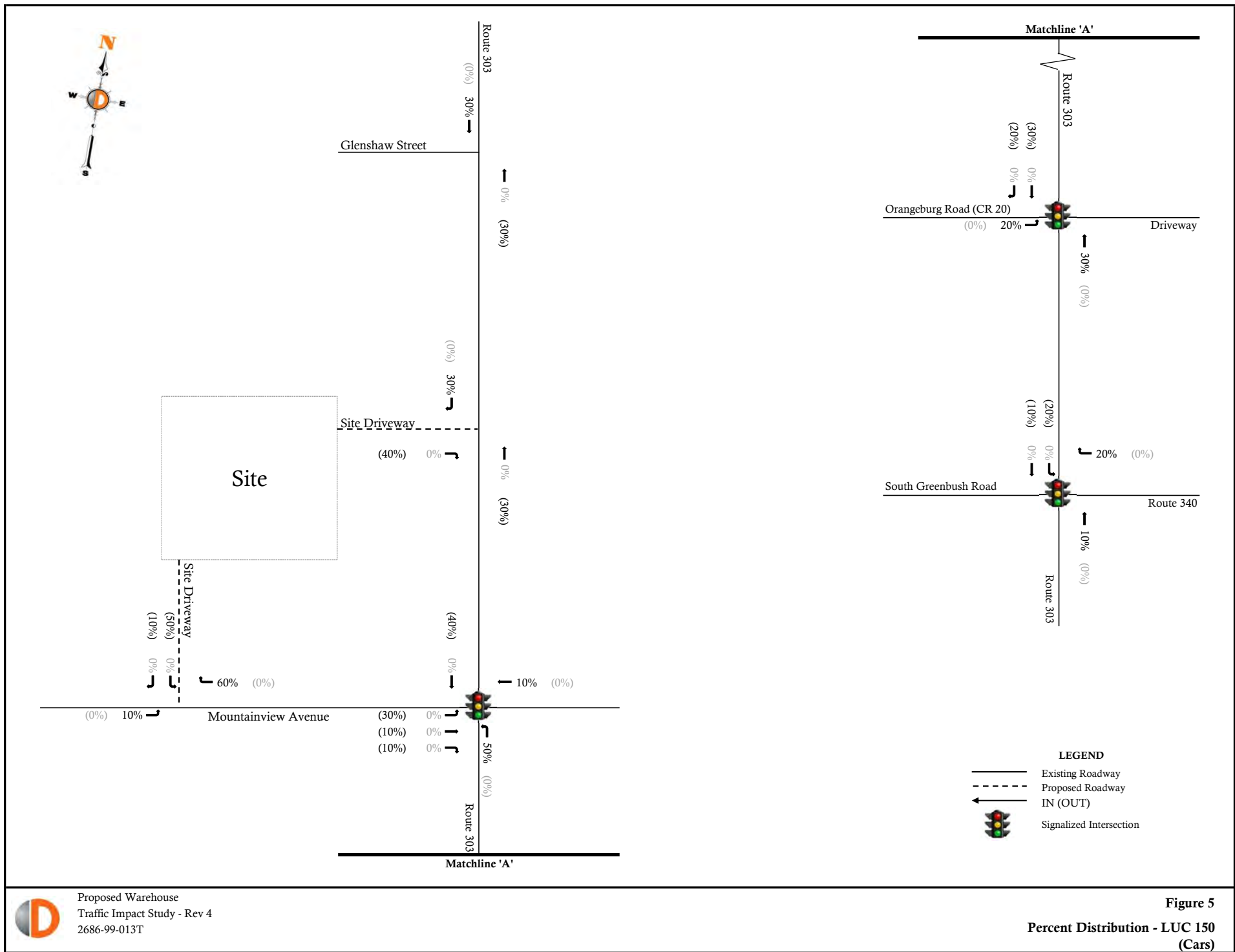
Figure 1

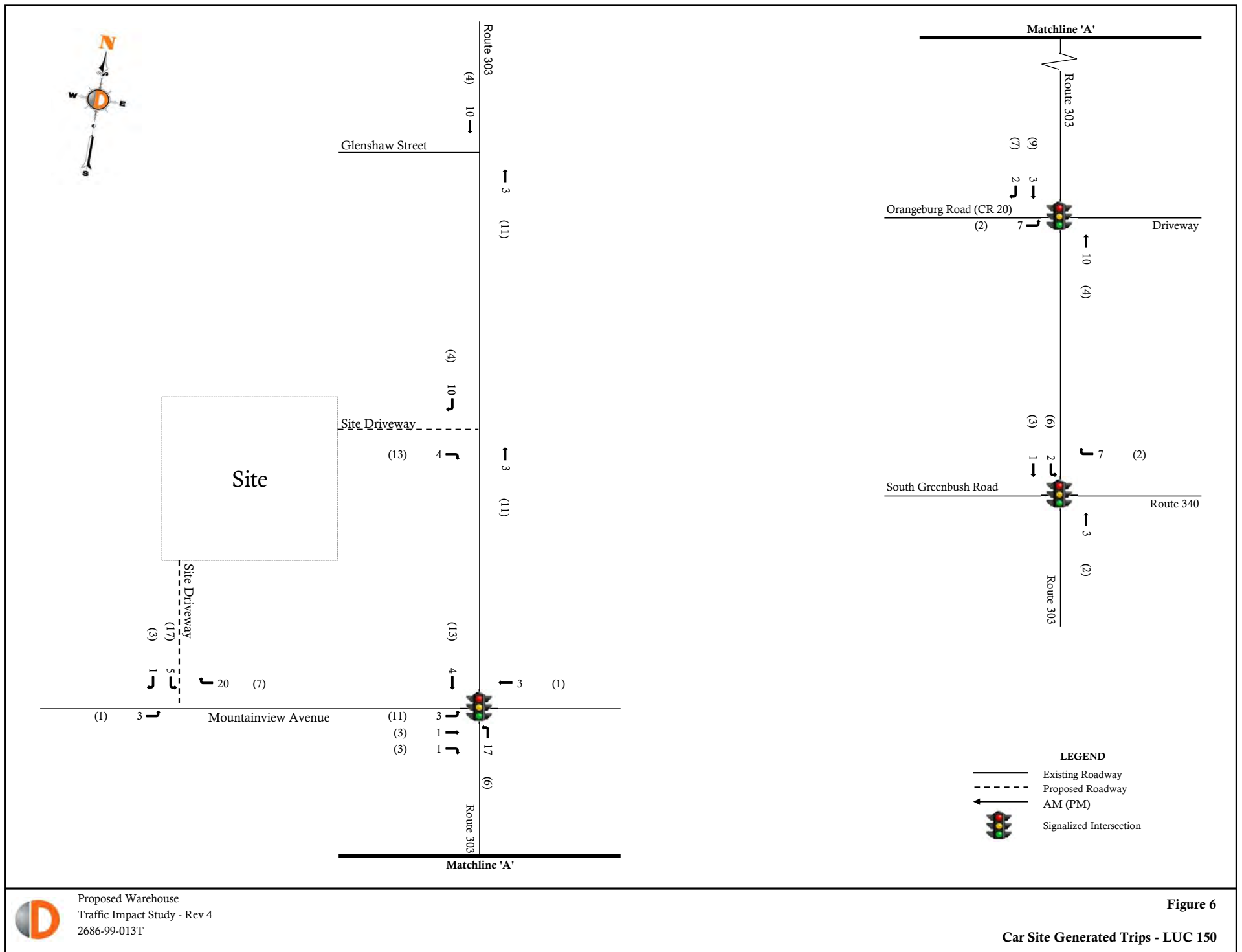
Site Location Map

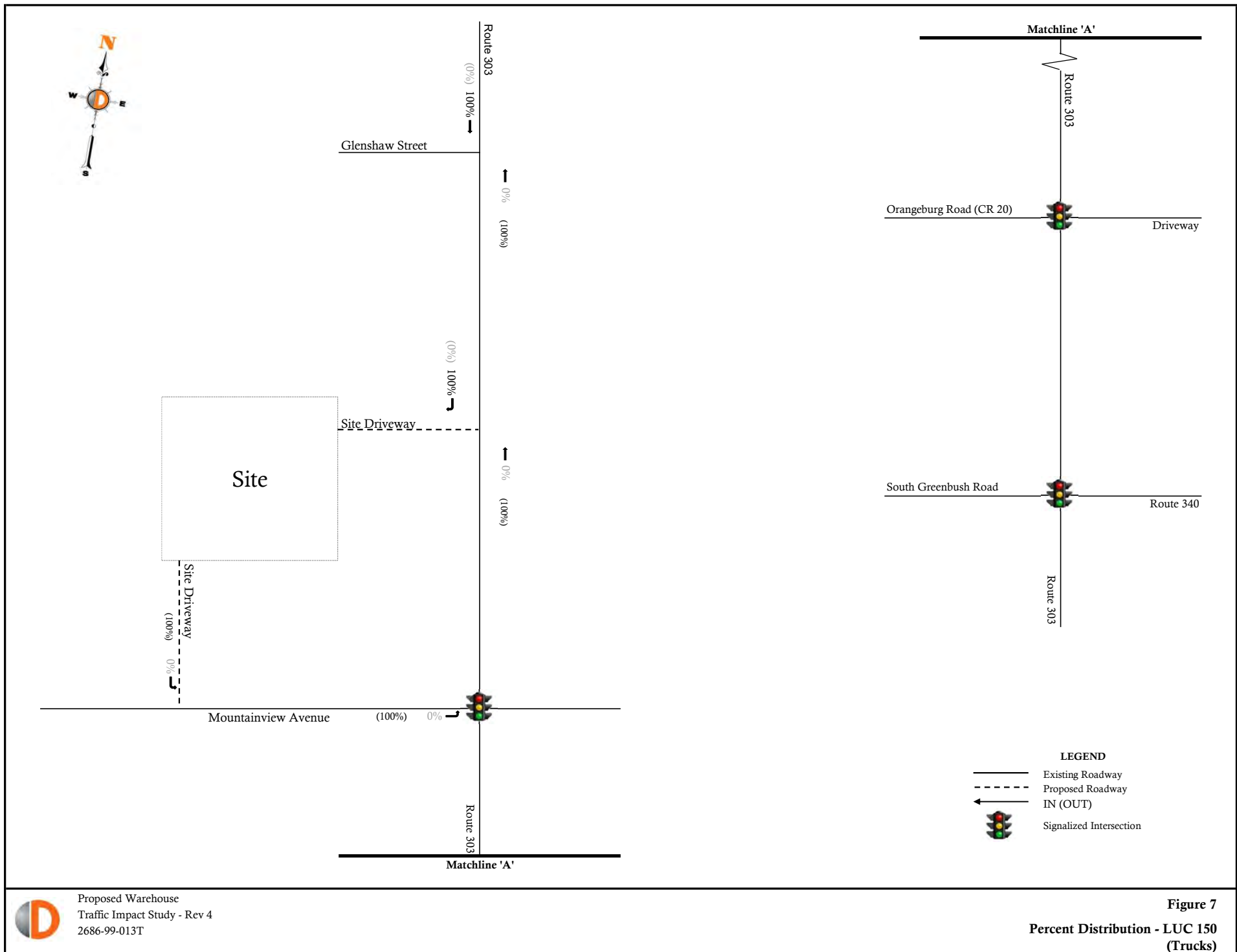


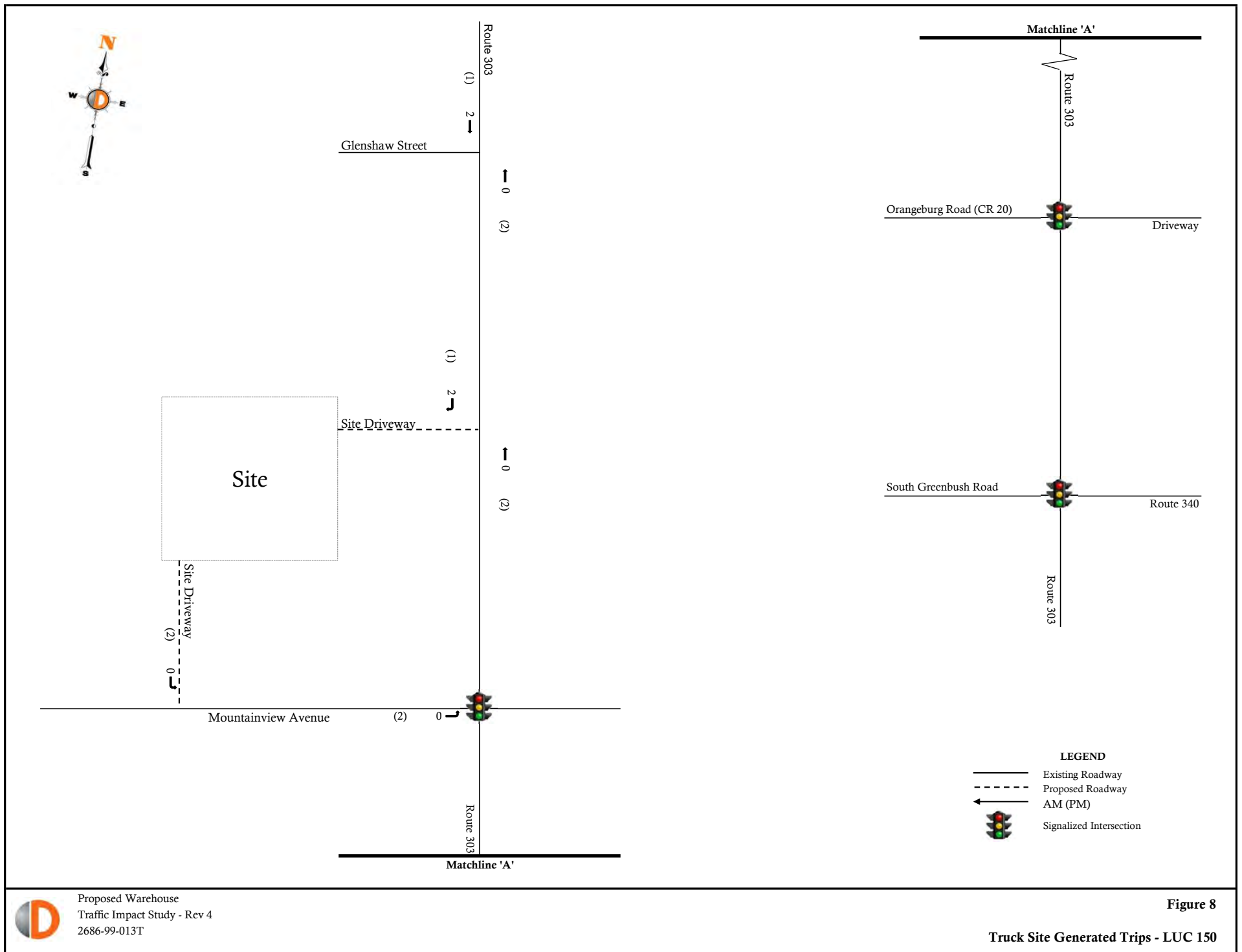


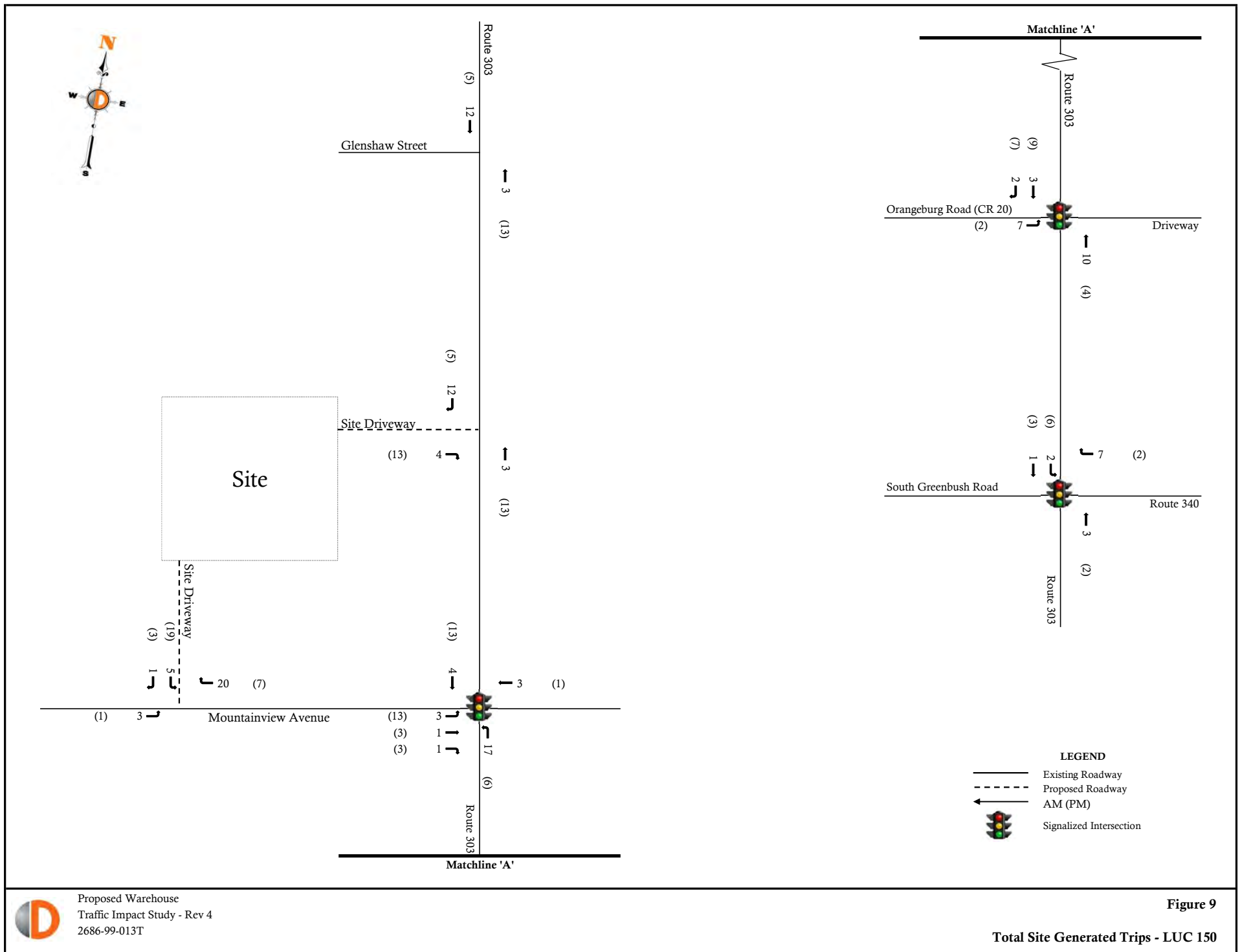


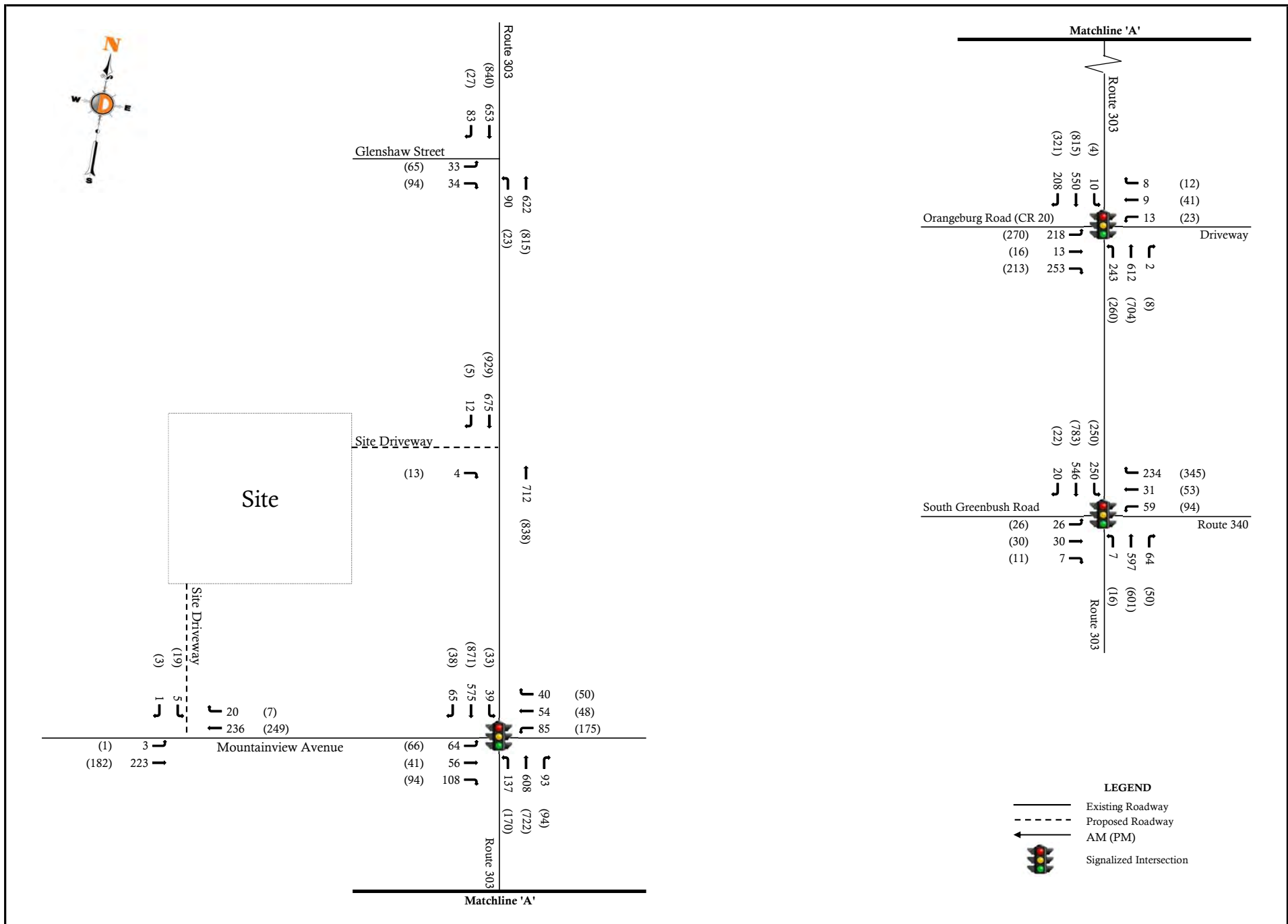


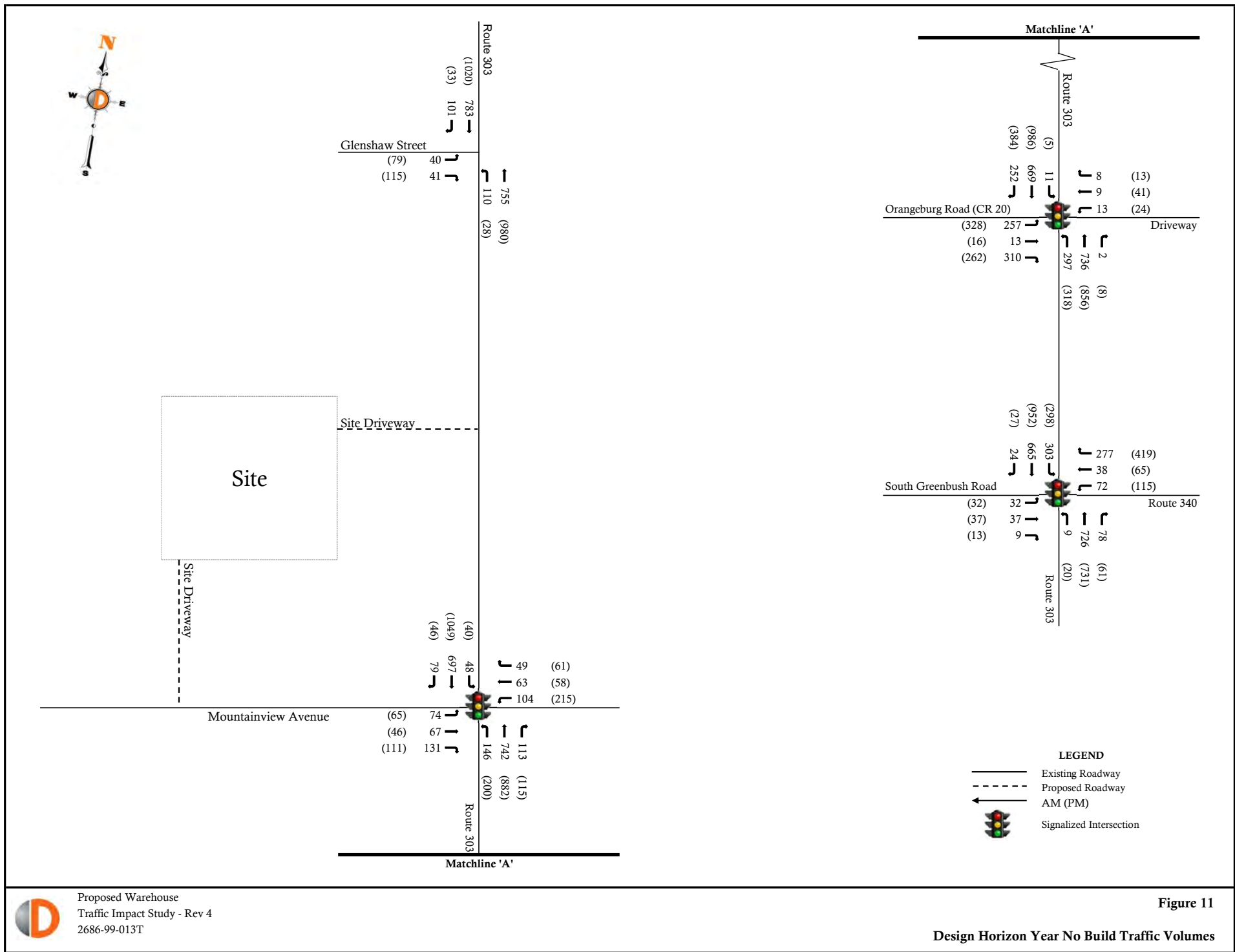


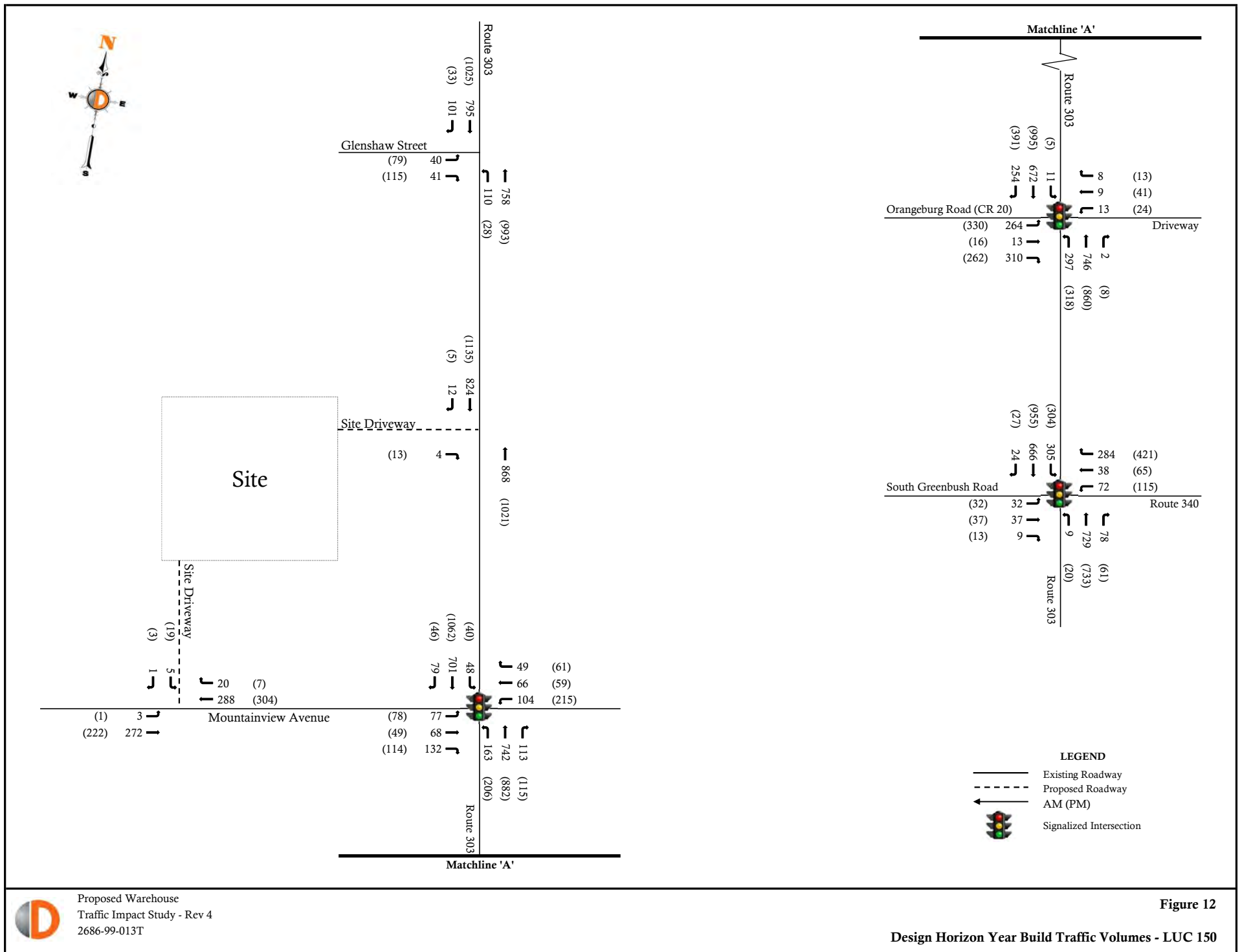












Appendix B

Project Information

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Mountain View Ave/ Greenbush Rd
City: Orangeburg
Control: Signalized

Project ID: 22-380027-001
Date: 6/2/2022

Data - Total

NS/EW Streets:	Route 303				Route 303				Mountain View Ave/ Greenbush Rd				Mountain View Ave/ Greenbush Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	15	77	24	0	2	80	2	0	11	5	11	0	30	9	4	0	270
7:15 AM	12	116	25	0	6	94	3	0	8	9	13	0	29	8	3	0	326
7:30 AM	21	163	20	0	2	100	6	0	13	12	16	0	23	7	6	0	389
7:45 AM	36	162	16	0	2	109	10	0	14	13	27	0	20	10	1	0	420
8:00 AM	28	128	13	0	2	120	20	0	14	16	25	0	12	14	4	0	396
8:15 AM	25	110	10	0	2	107	12	0	22	12	29	0	11	9	3	0	352
8:30 AM	29	134	18	0	2	117	13	0	10	5	24	0	22	12	3	0	389
8:45 AM	20	136	10	0	3	117	11	0	12	5	22	0	19	11	2	0	368
TOTAL VOLUMES :	NL 186	NT 1026	NR 136	NU 0	SL 21	ST 844	SR 77	SU 0	EL 104	ET 77	ER 167	EU 0	WL 166	WT 80	WR 26	WU 0	TOTAL 2910
APPROACH %'s :	13.80%	76.11%	10.09%	0.00%	2.23%	89.60%	8.17%	0.00%	29.89%	22.13%	47.99%	0.00%	61.03%	29.41%	9.56%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	118	534	57	0	8	453	55	0	60	46	105	0	65	45	11	0	1557
PEAK HR FACTOR :	0.819	0.824	0.792	0.000	1.000	0.944	0.688	0.000	0.682	0.719	0.905	0.000	0.739	0.804	0.688	0.000	0.927
	0.828				0.908				0.837				0.818				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	30	165	9	0	2	134	13	0	10	8	23	0	16	5	4	0	419
4:15 PM	31	170	25	0	3	147	3	0	12	9	14	0	20	7	2	0	443
4:30 PM	49	176	21	0	2	172	9	0	8	11	23	0	35	9	1	0	516
4:45 PM	31	139	17	0	3	196	4	0	15	7	24	0	28	8	2	0	474
5:00 PM	37	126	9	0	2	212	18	0	13	4	21	0	33	9	3	0	487
5:15 PM	24	140	7	0	1	174	13	0	9	5	13	0	44	8	2	0	440
5:30 PM	20	143	19	0	2	209	6	0	5	4	21	0	50	14	1	0	494
5:45 PM	25	132	11	0	2	176	8	0	5	4	25	0	36	14	1	0	439
TOTAL VOLUMES :	NL 247	NT 1191	NR 118	NU 0	SL 17	ST 1420	SR 74	SU 0	EL 77	ET 52	ER 164	EU 0	WL 262	WT 74	WR 16	WU 0	TOTAL 3712
APPROACH %'s :	15.87%	76.54%	7.58%	0.00%	1.13%	93.98%	4.90%	0.00%	26.28%	17.75%	55.97%	0.00%	74.43%	21.02%	4.55%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	148	611	72	0	10	727	34	0	48	31	82	0	116	33	8	0	1920
PEAK HR FACTOR :	0.755	0.868	0.720	0.000	0.833	0.857	0.472	0.000	0.800	0.705	0.854	0.000	0.829	0.917	0.667	0.000	0.930
	0.845				0.831				0.875				0.872				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Mountain View Ave/ Greenbush Rd
City: Orangeburg
Control: Signalized

Project ID: 22-380027-001
Date: 6/2/2022

Data - Cars

NS/EW Streets:	Route 303				Route 303				Mountain View Ave/ Greenbush Rd				Mountain View Ave/ Greenbush Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	15	71	23	0	2	63	2	0	11	5	10	0	28	7	4	0	241
7:15 AM	9	105	23	0	5	67	3	0	8	9	12	0	22	6	2	0	271
7:30 AM	20	151	20	0	2	84	6	0	13	11	14	0	11	5	2	0	339
7:45 AM	35	136	16	0	1	95	8	0	12	10	26	0	13	8	0	0	360
8:00 AM	25	115	13	0	1	103	19	0	14	5	25	0	12	14	1	0	347
8:15 AM	22	91	9	0	1	91	11	0	16	8	26	0	9	8	0	0	292
8:30 AM	26	115	17	0	1	100	11	0	8	5	23	0	19	6	0	0	331
8:45 AM	19	115	10	0	2	89	9	0	11	4	19	0	13	9	0	0	300
TOTAL VOLUMES :	NL 171	NT 899	NR 131	NU 0	SL 15	ST 692	SR 69	SU 0	EL 93	ET 57	ER 155	EU 0	WL 127	WT 63	WR 9	WU 0	TOTAL 2481
APPROACH %'s :	14.24%	74.85%	10.91%	0.00%	1.93%	89.18%	8.89%	0.00%	30.49%	18.69%	50.82%	0.00%	63.82%	31.66%	4.52%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	108	457	55	0	4	389	49	0	50	28	100	0	53	36	1	0	1330
PEAK HR FACTOR :	0.771	0.840	0.809	0.000	1.000	0.944	0.645	0.000	0.781	0.700	0.962	0.000	0.697	0.643	0.250	0.000	0.924
	0.829				0.898				0.890				0.833				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	28	158	4	0	0	123	13	0	9	7	19	0	15	2	3	0	381
4:15 PM	30	155	18	0	1	130	3	0	12	7	13	0	18	7	1	0	395
4:30 PM	47	163	15	0	1	166	8	0	8	8	23	0	34	8	1	0	482
4:45 PM	30	126	12	0	2	191	4	0	15	7	23	0	27	8	2	0	447
5:00 PM	36	109	9	0	1	202	18	0	13	4	20	0	33	9	3	0	457
5:15 PM	23	135	7	0	0	170	13	0	9	5	13	0	44	7	1	0	427
5:30 PM	20	138	19	0	0	203	6	0	4	4	21	0	49	14	1	0	479
5:45 PM	25	125	11	0	2	167	8	0	5	4	25	0	35	14	1	0	422
TOTAL VOLUMES :	NL 239	NT 1109	NR 95	NU 0	SL 7	ST 1352	SR 73	SU 0	EL 75	ET 46	ER 157	EU 0	WL 255	WT 69	WR 13	WU 0	TOTAL 3490
APPROACH %'s :	16.56%	76.85%	6.58%	0.00%	0.49%	94.41%	5.10%	0.00%	26.98%	16.55%	56.47%	0.00%	75.67%	20.47%	3.86%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	143	553	54	0	5	689	33	0	48	26	79	0	112	32	7	0	1781
PEAK HR FACTOR :	0.761	0.848	0.750	0.000	0.625	0.853	0.458	0.000	0.800	0.813	0.859	0.000	0.824	0.889	0.583	0.000	0.924
	0.833				0.822				0.850				0.839				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Mountain View Ave/ Greenbush Rd
City: Orangeburg
Control: Signalized

Project ID: 22-380027-001
Date: 6/2/2022

Data - HT

NS/EW Streets:		Route 303				Route 303				Mountain View Ave/ Greenbush Rd				Mountain View Ave/ Greenbush Rd				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	7:00 AM	0	5	0	0	0	12	0	0	0	0	1	0	1	1	0	0	20
	7:15 AM	2	9	2	0	1	24	0	0	0	0	1	0	0	0	1	0	40
	7:30 AM	1	12	0	0	0	13	0	0	0	1	2	0	3	0	0	0	32
	7:45 AM	0	22	0	0	1	12	1	0	1	1	0	0	6	0	1	0	45
	8:00 AM	2	12	0	0	1	16	0	0	0	1	0	0	0	0	3	0	35
	8:15 AM	3	17	1	0	1	15	0	0	0	0	2	0	0	0	3	0	42
	8:30 AM	3	18	1	0	1	16	2	0	0	0	1	0	1	0	0	0	43
	8:45 AM	1	20	0	0	1	25	1	0	1	0	2	0	2	1	2	0	56
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		12	115	4	0	6	133	4	0	2	3	9	0	13	2	10	0	313
PEAK HR :		07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :		8	69	2	0	4	59	3	0	1	2	3	0	7	0	7	0	165
PEAK HR FACTOR :		0.667	0.784	0.500	0.000	1.000	0.922	0.375	0.000	0.250	0.500	0.375	0.000	0.292	0.000	0.583	0.000	0.917
		0.898				0.868				0.750				0.500				
PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	4:00 PM	0	5	0	0	2	9	0	0	1	0	2	0	0	2	1	0	22
	4:15 PM	1	15	2	0	2	14	0	0	0	0	1	0	1	0	1	0	37
	4:30 PM	1	11	0	0	1	6	1	0	0	0	0	0	1	0	0	0	21
	4:45 PM	1	11	1	0	1	5	0	0	0	0	1	0	0	0	0	0	20
	5:00 PM	1	16	0	0	1	9	0	0	0	0	1	0	0	0	0	0	28
	5:15 PM	1	5	0	0	1	3	0	0	0	0	0	0	0	1	1	0	12
	5:30 PM	0	5	0	0	2	6	0	0	1	0	0	0	1	0	0	0	15
	5:45 PM	0	4	0	0	0	9	0	0	0	0	0	0	1	0	0	0	14
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		5	72	3	0	10	61	1	0	2	0	5	0	4	3	3	0	169
PEAK HR :		04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :		4	53	3	0	5	34	1	0	0	0	3	0	2	0	1	0	106
PEAK HR FACTOR :		1.000	0.828	0.375	0.000	0.625	0.607	0.250	0.000	0.000	0.000	0.750	0.000	0.500	0.000	0.250	0.000	0.716
		0.833				0.625				0.750				0.375				

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Mountain View Ave/ Greenbush Rd
City: Orangeburg
Control: Signalized

Project ID: 22-380027-001
Date: 6/2/2022

Data - Buses

NS/EW Streets:	Route 303				Route 303				Mountain View Ave/ Greenbush Rd				Mountain View Ave/ Greenbush Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	1	1	0	0	5	0	0	0	0	0	0	1	1	0	0	9
7:15 AM	1	2	0	0	0	3	0	0	0	0	0	0	7	2	0	0	15
7:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	9	2	4	0	18
7:45 AM	1	4	0	0	0	2	1	0	1	2	1	0	1	2	0	0	15
8:00 AM	1	1	0	0	0	1	1	0	0	10	0	0	0	0	0	0	14
8:15 AM	0	2	0	0	0	1	1	0	6	4	1	0	2	1	0	0	18
8:30 AM	0	1	0	0	0	1	0	0	2	0	0	0	2	6	3	0	15
8:45 AM	0	1	0	0	0	3	1	0	0	1	1	0	4	1	0	0	12
TOTAL VOLUMES :	NL 3	NT 12	NR 1	NU 0	SL 0	ST 19	SR 4	SU 0	EL 9	ET 17	ER 3	EU 0	WL 26	WT 15	WR 7	WU 0	TOTAL 116
APPROACH %'s :	18.75%	75.00%	6.25%	0.00%	0.00%	82.61%	17.39%	0.00%	31.03%	58.62%	10.34%	0.00%	54.17%	31.25%	14.58%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	2	8	0	0	0	5	3	0	9	16	2	0	5	9	3	0	62
PEAK HR FACTOR :	0.500	0.500	0.000	0.000	0.000	0.625	0.750	0.000	0.375	0.400	0.500	0.000	0.625	0.375	0.250	0.000	0.861
	0.500				0.667				0.614				0.386				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0.5 NL	1.5 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	2	2	5	0	0	2	0	0	0	1	2	0	1	1	0	0	16
4:15 PM	0	0	5	0	0	3	0	0	0	2	0	0	1	0	0	0	11
4:30 PM	1	2	6	0	0	0	0	0	0	3	0	0	0	1	0	0	13
4:45 PM	0	2	4	0	0	0	0	0	0	0	0	0	1	0	0	0	7
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES :	NL 3	NT 10	NR 20	NU 0	SL 0	ST 7	SR 0	SU 0	EL 0	ET 6	ER 2	EU 0	WL 3	WT 2	WR 0	WU 0	TOTAL 53
APPROACH %'s :	9.09%	30.30%	60.61%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	75.00%	25.00%	0.00%	60.00%	40.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1	5	15	0	0	4	0	0	0	5	0	0	2	1	0	0	33
PEAK HR FACTOR :	0.250	0.625	0.625	0.000	0.000	0.333	0.000	0.000	0.000	0.417	0.000	0.000	0.500	0.250	0.000	0.000	0.635
	0.583				0.333				0.417				0.750				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Mountain View Ave/ Greenbush Rd
City: Orangeburg
Control: Signalized

Project ID: 22-380027-001
Date: 6/2/2022

Data - Bikes

NS/EW Streets:		Route 303				Route 303				Mountain View Ave/ Greenbush Rd				Mountain View Ave/ Greenbush Rd					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	0.5	1.5	0	0	0.5	1.5	0	0	0	1	0	0	0	0	1	0		0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL		
APPROACH %'s :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
PEAK HR :	07:45 AM - 08:45 AM																TOTAL		
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250		
				0.250															

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	0.5	1.5	0	0	0.5	1.5	0	0	0	1	0	0	0	0	1	0		0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL		
APPROACH %'s :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
PEAK HR :	04:15 PM - 05:15 PM																TOTAL		
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
PEAK HR FACTOR :	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250		
				0.250															

Surveying Services Intersection Turning Movement Count

Location: Route 303 & Mountain View Ave/ Greenbush Rd
City: Orangeburg

Project ID: 22-380027-001
Date: 6/2/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Route 303		Route 303		Mountain View Ave/ Greenbush Rd		Mountain View Ave/ Greenbush Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 2	EB 0	WB 0	NB 0	SB 0	NB 0	SB 0	TOTAL 2
APPROACH %'s :	0.00%	100.00%							
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	0		0		0		0
PEAK HR FACTOR :									

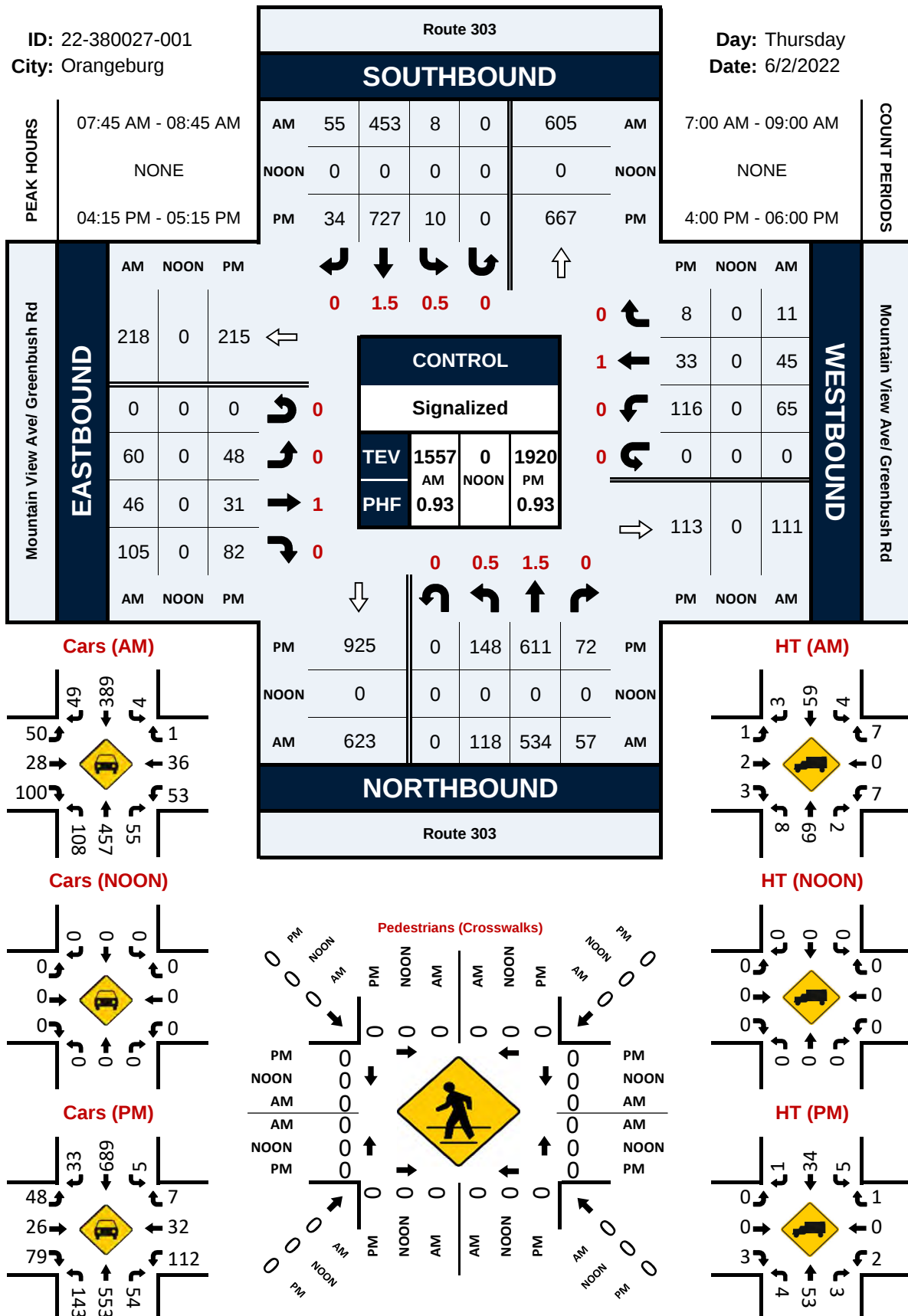
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Route 303 & Mountain View Ave/ Greenbush Rd

Peak Hour Turning Movement Count

ID: 22-380027-001
City: Orangeburg

Day: Thursday
Date: 6/2/2022



National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Orangeburg Rd/Chase Bank Dwy
City: Orangeburg
Control: Signalized

Project ID: 22-380027-002
Date: 6/2/2022

Data - Total

NS/EW Streets:	Route 303				Route 303				Orangeburg Rd/Chase Bank Dwy				Orangeburg Rd/Chase Bank Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	22	83	2	0	2	72	39	0	43	2	44	0	1	3	2	0	315
7:15 AM	29	109	2	0	2	87	40	0	53	0	41	0	0	3	0	0	366
7:30 AM	54	140	1	0	2	101	48	0	75	2	44	0	3	0	2	0	472
7:45 AM	48	152	0	0	1	111	43	0	48	1	58	0	1	3	1	0	467
8:00 AM	95	127	1	0	3	93	55	0	37	2	63	0	4	3	2	0	485
8:15 AM	50	92	0	0	2	101	34	0	51	6	71	0	3	1	4	0	415
8:30 AM	43	134	1	0	2	115	38	0	56	4	54	0	5	2	1	0	455
8:45 AM	47	119	3	0	1	100	44	0	53	3	59	0	3	3	0	0	435
TOTAL VOLUMES :	NL 388	NT 956	NR 10	NU 0	SL 15	ST 780	SR 341	SU 0	EL 416	ET 20	ER 434	EU 0	WL 20	WT 18	WR 12	WU 0	TOTAL 3410
APPROACH %'s :	28.66%	70.61%	0.74%	0.00%	1.32%	68.66%	30.02%	0.00%	47.82%	2.30%	49.89%	0.00%	40.00%	36.00%	24.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	247	511	2	0	8	406	180	0	211	11	236	0	11	7	9	0	1839
PEAK HR FACTOR :	0.650	0.840	0.500	0.000	0.667	0.914	0.818	0.000	0.703	0.458	0.831	0.000	0.688	0.583	0.563	0.000	0.948
	0.852				0.958				0.895				0.750				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	48	141	3	0	0	125	59	0	46	5	64	0	1	6	4	0	502
4:15 PM	59	155	2	0	1	134	63	0	62	3	49	0	3	7	4	0	542
4:30 PM	62	157	3	0	0	172	64	0	56	1	51	0	5	10	0	0	581
4:45 PM	55	122	0	0	1	170	63	0	53	6	42	0	7	5	2	0	526
5:00 PM	53	122	2	0	2	163	79	0	51	5	46	0	6	15	4	0	548
5:15 PM	37	112	1	0	2	176	78	0	48	3	38	0	5	13	2	0	515
5:30 PM	35	123	3	0	2	201	83	0	49	3	44	0	2	3	2	0	550
5:45 PM	56	120	0	0	1	182	54	0	43	4	54	0	2	2	2	0	520
TOTAL VOLUMES :	NL 405	NT 1052	NR 14	NU 0	SL 9	ST 1323	SR 543	SU 0	EL 408	ET 30	ER 388	EU 0	WL 31	WT 61	WR 20	WU 0	TOTAL 4284
APPROACH %'s :	27.53%	71.52%	0.95%	0.00%	0.48%	70.56%	28.96%	0.00%	49.39%	3.63%	46.97%	0.00%	27.68%	54.46%	17.86%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	229	556	7	0	4	639	269	0	222	15	188	0	21	37	10	0	2197
PEAK HR FACTOR :	0.923	0.885	0.583	0.000	0.500	0.929	0.851	0.000	0.895	0.625	0.922	0.000	0.750	0.617	0.625	0.000	0.945
	0.892				0.934				0.932				0.680				

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Orangeburg Rd/Chase Bank Dwy
City: Orangeburg
Control: Signalized

Project ID: 22-380027-002
Date: 6/2/2022

Data - Cars

NS/EW Streets:	Route 303				Route 303				Orangeburg Rd/Chase Bank Dwy				Orangeburg Rd/Chase Bank Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	15	77	2	0	2	58	34	0	42	2	39	0	1	3	2	0	277
7:15 AM	22	97	2	0	2	59	34	0	50	0	35	0	0	3	0	0	304
7:30 AM	49	124	1	0	2	85	36	0	72	2	41	0	3	0	2	0	417
7:45 AM	41	132	0	0	1	96	34	0	47	1	53	0	1	3	1	0	410
8:00 AM	84	113	1	0	1	83	49	0	36	2	55	0	4	3	2	0	433
8:15 AM	48	73	0	0	1	90	27	0	48	6	67	0	3	1	4	0	368
8:30 AM	40	118	1	0	2	99	33	0	48	4	48	0	5	2	1	0	401
8:45 AM	41	98	3	0	0	81	33	0	50	2	51	0	3	3	0	0	365
TOTAL VOLUMES :	NL 340	NT 832	NR 10	NU 0	SL 11	ST 651	SR 280	SU 0	EL 393	ET 19	ER 389	EU 0	WL 20	WT 18	WR 12	WU 0	TOTAL 2975
APPROACH %'s :	28.76%	70.39%	0.85%	0.00%	1.17%	69.11%	29.72%	0.00%	49.06%	2.37%	48.56%	0.00%	40.00%	36.00%	24.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	222	442	2	0	5	354	146	0	203	11	216	0	11	7	9	0	1628
PEAK HR FACTOR :	0.661	0.837	0.500	0.000	0.625	0.922	0.745	0.000	0.705	0.458	0.806	0.000	0.688	0.583	0.563	0.000	0.940
	0.841				0.949				0.888				0.750				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	45	131	3	0	0	112	57	0	44	5	56	0	1	6	4	0	464
4:15 PM	58	143	2	0	1	117	61	0	54	3	46	0	3	7	4	0	499
4:30 PM	61	146	3	0	0	169	63	0	45	1	47	0	5	10	0	0	550
4:45 PM	53	110	0	0	1	166	61	0	45	6	41	0	7	5	2	0	497
5:00 PM	52	112	2	0	2	153	79	0	48	5	46	0	6	15	4	0	524
5:15 PM	36	109	1	0	2	173	77	0	45	3	38	0	5	13	2	0	504
5:30 PM	31	121	3	0	2	195	82	0	46	3	41	0	2	3	2	0	531
5:45 PM	54	115	0	0	1	174	51	0	41	4	52	0	2	2	2	0	498
TOTAL VOLUMES :	NL 390	NT 987	NR 14	NU 0	SL 9	ST 1259	SR 531	SU 0	EL 368	ET 30	ER 367	EU 0	WL 31	WT 61	WR 20	WU 0	TOTAL 4067
APPROACH %'s :	28.04%	70.96%	1.01%	0.00%	0.50%	69.98%	29.52%	0.00%	48.10%	3.92%	47.97%	0.00%	27.68%	54.46%	17.86%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	224	511	7	0	4	605	264	0	192	15	180	0	21	37	10	0	2070
PEAK HR FACTOR :	0.918	0.875	0.583	0.000	0.500	0.895	0.835	0.000	0.889	0.625	0.957	0.000	0.750	0.617	0.625	0.000	0.941
	0.883				0.933				0.939				0.680				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Orangeburg Rd/Chase Bank Dwy
City: Orangeburg
Control: Signalized

Project ID: 22-380027-002
Date: 6/2/2022

Data - HT

NS/EW Streets:		Route 303				Route 303				Orangeburg Rd/Chase Bank Dwy				Orangeburg Rd/Chase Bank Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	2	0	0	0	2	0	0	0.5	0.5	1	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	7:00 AM	7	5	0	0	0	9	4	0	0	0	3	0	0	0	0		0
	7:15 AM	7	10	0	0	0	22	4	0	2	0	5	0	0	0	0		0
	7:30 AM	5	16	0	0	0	9	7	0	3	0	3	0	0	0	0		0
	7:45 AM	2	15	0	0	0	13	7	0	1	0	5	0	0	0	0		0
	8:00 AM	7	12	0	0	2	10	5	0	1	0	5	0	0	0	0		0
	8:15 AM	2	18	0	0	1	9	6	0	1	0	3	0	0	0	0		0
8:30 AM	2	15	0	0	0	13	4	0	8	0	5	0	0	0	0	0		
8:45 AM	5	20	0	0	1	14	9	0	3	1	7	0	0	0	0	0		
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		37	111	0	0	4	99	46	0	19	1	36	0	0	0	0	0	353
APPROACH %'s :		25.00%	75.00%	0.00%	0.00%	2.68%	66.44%	30.87%	0.00%	33.93%	1.79%	64.29%	0.00%					
PEAK HR :		07:30 AM - 08:30 AM												TOTAL				
PEAK HR VOL :		16	61	0	0	3	41	25	0	6	0	16	0	0	0	0	0	168
PEAK HR FACTOR :		0.571	0.847	0.000	0.000	0.375	0.788	0.893	0.000	0.500	0.000	0.800	0.000	0.000	0.000	0.000	0.000	0.977
		0.917				0.863				0.917								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	2	0	0	0	2	0	0	0.5	0.5	1	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	4:00 PM	3	5	0	0	0	10	2	0	1	0	8	0	0	0	0		0
	4:15 PM	1	10	0	0	0	15	0	0	6	0	1	0	0	0	0		0
	4:30 PM	1	6	0	0	0	3	1	0	7	0	4	0	0	0	0		0
	4:45 PM	2	7	0	0	0	4	1	0	8	0	1	0	0	0	0		0
	5:00 PM	1	9	0	0	0	10	0	0	3	0	0	0	0	0	0		0
	5:15 PM	1	3	0	0	0	3	0	0	3	0	0	0	0	0	0		0
5:30 PM	4	2	0	0	0	5	1	0	3	0	2	0	0	0	0	0		
5:45 PM	2	3	0	0	0	8	3	0	1	0	2	0	0	0	0	0		
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		15	45	0	0	0	58	8	0	32	0	18	0	0	0	0	0	176
APPROACH %'s :		25.00%	75.00%	0.00%	0.00%	0.00%	87.88%	12.12%	0.00%	64.00%	0.00%	36.00%	0.00%					
PEAK HR :		04:15 PM - 05:15 PM												TOTAL				
PEAK HR VOL :		5	32	0	0	0	32	2	0	24	0	6	0	0	0	0	0	101
PEAK HR FACTOR :		0.625	0.800	0.000	0.000	0.000	0.533	0.500	0.000	0.750	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.765
		0.841				0.567				0.682								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Orangeburg Rd/Chase Bank Dwy
City: Orangeburg
Control: Signalized

Project ID: 22-380027-002
Date: 6/2/2022

Data - Buses

NS/EW Streets:	Route 303				Route 303				Orangeburg Rd/Chase Bank Dwy				Orangeburg Rd/Chase Bank Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	1	0	0	0	5	1	0	1	0	2	0	0	0	0	0	10
7:15 AM	0	2	0	0	0	6	2	0	1	0	1	0	0	0	0	0	12
7:30 AM	0	0	0	0	0	7	5	0	0	0	0	0	0	0	0	0	12
7:45 AM	5	5	0	0	0	2	2	0	0	0	0	0	0	0	0	0	14
8:00 AM	4	2	0	0	0	0	1	0	0	0	3	0	0	0	0	0	10
8:15 AM	0	1	0	0	0	2	1	0	2	0	1	0	0	0	0	0	7
8:30 AM	1	1	0	0	0	3	1	0	0	0	1	0	0	0	0	0	7
8:45 AM	1	1	0	0	0	5	2	0	0	0	1	0	0	0	0	0	10
TOTAL VOLUMES :	NL 11	NT 13	NR 0	NU 0	SL 0	ST 30	SR 15	SU 0	EL 4	ET 0	ER 9	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 82
APPROACH %'s :	45.83%	54.17%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%	30.77%	0.00%	69.23%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL 43
PEAK HR VOL :	9	8	0	0	0	11	9	0	2	0	4	0	0	0	0	0	
PEAK HR FACTOR :	0.450	0.400	0.000	0.000	0.000	0.393	0.450	0.000	0.250	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.768
	0.425				0.417				0.500								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	0	5	0	0	0	3	0	0	1	0	0	0	0	0	0	0	9
4:15 PM	0	2	0	0	0	2	2	0	2	0	2	0	0	0	0	0	10
4:30 PM	0	5	0	0	0	0	0	0	4	0	0	0	0	0	0	0	9
4:45 PM	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
5:45 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
TOTAL VOLUMES :	NL 0	NT 20	NR 0	NU 0	SL 0	ST 6	SR 4	SU 0	EL 8	ET 0	ER 3	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 41
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	60.00%	40.00%	0.00%	72.73%	0.00%	27.27%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL 26
PEAK HR VOL :	0	13	0	0	0	2	3	0	6	0	2	0	0	0	0	0	
PEAK HR FACTOR :	0.000	0.650	0.000	0.000	0.000	0.250	0.375	0.000	0.375	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.650
	0.650				0.313				0.500								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Orangeburg Rd/Chase Bank Dwy
City: Orangeburg
Control: Signalized

Project ID: 22-380027-002
Date: 6/2/2022

Data - Bikes

NS/EW Streets:	Route 303				Route 303				Orangeburg Rd/Chase Bank Dwy				Orangeburg Rd/Chase Bank Dwy			
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
APPROACH %'s :	0	0	0	0	0	0	0	0	0.00%	0.00%	100.00%	0.00%	0	0	0	0
PEAK HR :	07:30 AM - 08:30 AM															
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000
									0.250							
TOTAL																
1																
0.250																
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0.5 EL	0.5 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
APPROACH %'s :	0	0	0	0	0	0	0	0	0.00%	100.00%	0.00%	0.00%	0	0	0	0
PEAK HR :	04:15 PM - 05:15 PM															
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000
									0.250							
TOTAL																
1																
0.250																

National Data & Surveying Services

Intersection Turning Movement Count

Location: Route 303 & Orangeburg Rd/Chase Bank Dwy
City: Orangeburg

Project ID: 22-380027-002
Date: 6/2/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Route 303		Route 303		Orangeburg Rd/Chase Bank Dwy		Orangeburg Rd/Chase Bank Dwy		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	2	1	0	0	3
8:15 AM	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	1	2	2	0	0	5
			0.00%	100.00%	50.00%	50.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	2	2	0	0	4
PEAK HR FACTOR :					0.250	0.500			0.333
					0.333				

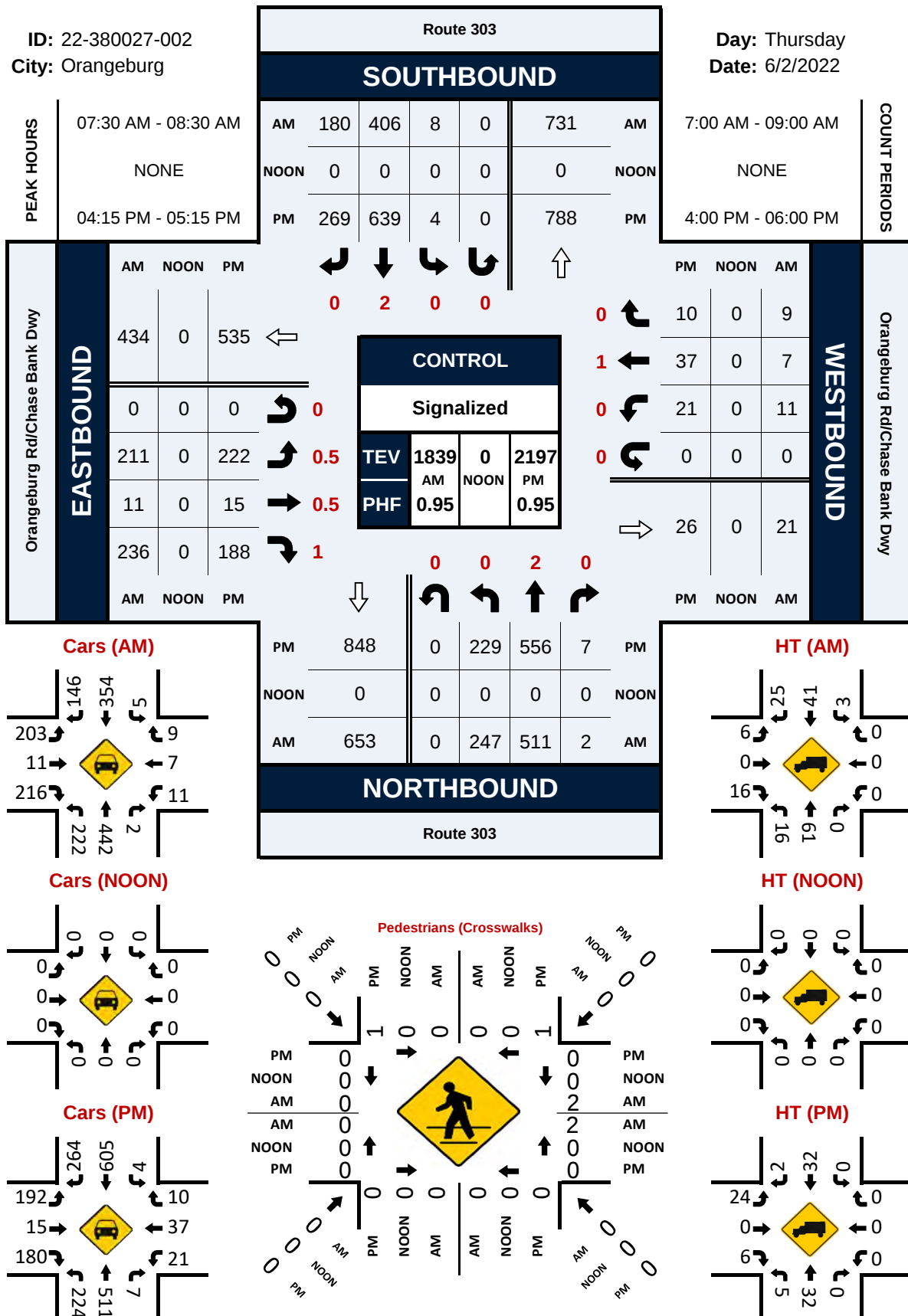
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	1	1	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	1	1	0	0	0	0	0	0	2
	50.00%	50.00%							
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.250	0.250							0.250
	0.250								

Route 303 & Orangeburg Rd/Chase Bank Dwy

Peak Hour Turning Movement Count

ID: 22-380027-002
City: Orangeburg

Day: Thursday
Date: 6/2/2022



National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Greenbush/Rte 340
City: Orangeburg
Control: Signalized

Project ID: 22-380027-003
Date: 6/2/2022

Data - Total

NS/EW Streets:	Route 303				Route 303				Greenbush/Rte 340				Greenbush/Rte 340					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	2	0	0	0.5	1.5	0	0	0	1	0	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	7:00 AM	2	89	9	0	32	75	7	0	0	7	1	0	11	1	20		0
	7:15 AM	0	119	12	0	34	80	10	0	2	8	1	0	5	2	23		0
	7:30 AM	1	158	9	0	39	87	9	0	5	5	5	0	7	3	37	0	
	7:45 AM	0	135	19	0	53	115	6	0	6	7	1	0	14	9	46	0	
	8:00 AM	1	144	11	0	49	103	2	0	8	4	1	0	14	9	69	0	
	8:15 AM	3	94	16	0	54	105	4	0	5	9	1	0	7	3	41	0	
	8:30 AM	2	124	17	0	50	116	6	0	5	8	4	0	23	9	44	0	
	8:45 AM	2	115	18	0	49	101	8	0	4	8	1	0	18	4	44	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	1.00%	88.91%	10.09%	0.00%	30.15%	65.49%	4.36%	0.00%	33.02%	52.83%	14.15%	0.00%	21.38%	8.64%	69.98%	0.00%	2863	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL	
PEAK HR VOL :	6	497	63	0	206	439	18	0	24	28	7	0	58	30	200	0	1576	
PEAK HR FACTOR :	0.500	0.863	0.829	0.000	0.954	0.946	0.750	0.000	0.750	0.778	0.438	0.000	0.630	0.833	0.725	0.000	0.949	
0.9070.9530.8680.783																		
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0	2	0	0	0.5	1.5	0	0	0	1	0	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
	4:00 PM	3	132	20	0	40	137	14	0	9	10	3	0	14	10	59		0
	4:15 PM	1	143	10	0	49	132	4	0	7	7	2	0	22	11	66		0
	4:30 PM	6	141	17	0	54	161	7	0	3	3	3	0	14	18	80	0	
	4:45 PM	2	111	10	0	42	172	6	0	7	9	1	0	11	8	61	0	
	5:00 PM	3	85	8	0	46	169	3	1	5	5	4	0	25	11	77	0	
	5:15 PM	2	98	20	0	43	161	9	0	10	9	3	0	20	7	47	0	
	5:30 PM	2	96	15	0	49	191	6	0	4	6	1	0	17	5	55	0	
	5:45 PM	4	110	21	0	58	170	14	0	11	11	8	0	22	10	53	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	2.17%	86.42%	11.42%	0.00%	21.92%	74.40%	3.62%	0.06%	39.72%	42.55%	17.73%	0.00%	20.06%	11.07%	68.88%	0.00%	3662	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL	
PEAK HR VOL :	12	527	57	0	185	602	31	0	26	29	9	0	61	47	266	0	1852	
PEAK HR FACTOR :	0.500	0.921	0.713	0.000	0.856	0.875	0.554	0.000	0.722	0.725	0.750	0.000	0.693	0.653	0.831	0.000	0.913	
0.9090.9210.7270.835																		

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Greenbush/Rte 340
City: Orangeburg
Control: Signalized

Project ID: 22-380027-003
Date: 6/2/2022

Data - HT

NS/EW Streets:	Route 303				Route 303				Greenbush/Rte 340				Greenbush/Rte 340				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	11	0	0	3	8	0	0	0	0	0	0	2	0	1	0	25
7:15 AM	0	15	1	0	5	20	0	0	0	0	0	0	1	0	6	0	48
7:30 AM	1	15	3	0	3	10	0	0	0	0	0	0	0	0	3	0	35
7:45 AM	0	16	1	0	5	13	0	0	2	0	0	0	3	0	1	0	41
8:00 AM	1	13	0	0	4	10	0	0	2	0	0	0	2	0	2	0	34
8:15 AM	0	17	3	0	2	9	3	0	0	1	0	0	0	0	2	0	37
8:30 AM	0	10	2	0	5	13	0	0	1	1	0	0	2	1	8	0	43
8:45 AM	0	19	0	0	6	16	2	0	1	2	0	0	1	0	3	0	50
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	2	116	10	0	33	99	5	0	6	4	0	0	11	1	26	0	313
	1.56%	90.63%	7.81%	0.00%	24.09%	72.26%	3.65%	0.00%	60.00%	40.00%	0.00%	0.00%	28.95%	2.63%	68.42%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	1	56	6	0	16	45	3	0	5	2	0	0	7	1	13	0	155
PEAK HR FACTOR :	0.250	0.824	0.500	0.000	0.800	0.865	0.250	0.000	0.625	0.500	0.000	0.000	0.583	0.250	0.406	0.000	0.901
	0.788				0.889				0.875				0.477				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	0	4	0	0	2	12	2	0	0	1	0	0	0	0	4	0	25
4:15 PM	0	4	0	0	4	10	1	0	0	0	0	0	0	0	7	0	26
4:30 PM	0	5	1	0	2	6	0	0	0	0	0	0	0	2	3	0	19
4:45 PM	0	6	0	0	0	3	3	0	0	0	0	0	0	1	1	0	14
5:00 PM	0	5	0	0	1	9	0	0	1	0	0	0	1	0	3	0	20
5:15 PM	0	6	1	0	0	1	1	0	0	0	0	0	0	0	1	0	10
5:30 PM	0	3	0	0	2	6	0	0	0	0	0	0	0	0	1	0	12
5:45 PM	0	3	0	0	2	7	0	0	0	0	0	0	0	0	2	0	14
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	36	2	0	13	54	7	0	1	1	0	0	1	3	22	0	140
	0.00%	94.74%	5.26%	0.00%	17.57%	72.97%	9.46%	0.00%	50.00%	50.00%	0.00%	0.00%	3.85%	11.54%	84.62%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	19	1	0	8	31	6	0	0	1	0	0	0	3	15	0	84
PEAK HR FACTOR :	0.000	0.792	0.250	0.000	0.500	0.646	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.375	0.536	0.000	0.808
	0.833				0.703				0.250				0.643				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Greenbush/Rte 340
City: Orangeburg
Control: Signalized

Project ID: 22-380027-003
Date: 6/2/2022

Data - Cars

NS/EW Streets:	Route 303				Route 303				Greenbush/Rte 340				Greenbush/Rte 340				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0.5	1.5	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	77	9	0	26	63	7	0	0	7	1	0	9	1	19	0	221
7:15 AM	0	103	10	0	25	58	9	0	2	8	1	0	4	2	16	0	238
7:30 AM	0	143	6	0	33	73	9	0	5	5	5	0	6	3	34	0	322
7:45 AM	0	116	18	0	48	101	5	0	4	7	1	0	11	9	38	0	358
8:00 AM	0	129	11	0	44	92	1	0	6	4	1	0	12	9	63	0	372
8:15 AM	3	76	13	0	50	95	1	0	5	8	1	0	7	3	39	0	301
8:30 AM	2	114	15	0	42	102	6	0	4	7	4	0	19	8	34	0	357
8:45 AM	2	95	18	0	39	83	6	0	3	5	1	0	16	4	40	0	312
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	9	853	100	0	307	667	44	0	29	51	15	0	84	39	283	0	2481
	0.94%	88.67%	10.40%	0.00%	30.16%	65.52%	4.32%	0.00%	30.53%	53.68%	15.79%	0.00%	20.69%	9.61%	69.70%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	5	435	57	0	184	390	13	0	19	26	7	0	49	29	174	0	1388
PEAK HR FACTOR :	0.417	0.843	0.792	0.000	0.920	0.956	0.542	0.000	0.792	0.813	0.438	0.000	0.645	0.806	0.690	0.000	0.933
	0.888				0.953				0.867				0.750				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0.5	1.5	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	125	20	0	37	123	12	0	9	9	3	0	14	10	53	0	418
4:15 PM	1	137	10	0	43	120	3	0	7	7	2	0	22	11	59	0	422
4:30 PM	6	132	16	0	52	155	7	0	3	3	3	0	14	16	74	0	481
4:45 PM	2	105	10	0	42	169	3	0	7	9	1	0	11	7	57	0	423
5:00 PM	3	79	8	0	45	160	3	1	4	5	4	0	24	11	74	0	421
5:15 PM	2	92	19	0	43	160	8	0	10	9	3	0	20	7	46	0	419
5:30 PM	2	93	15	0	47	183	6	0	4	6	1	0	17	5	54	0	433
5:45 PM	4	106	21	0	55	163	14	0	11	11	8	0	22	10	50	0	475
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	23	869	119	0	364	1233	56	1	55	59	25	0	144	77	467	0	3492
	2.27%	85.95%	11.77%	0.00%	22.01%	74.55%	3.39%	0.06%	39.57%	42.45%	17.99%	0.00%	20.93%	11.19%	67.88%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	12	499	56	0	174	567	25	0	26	28	9	0	61	44	243	0	1744
PEAK HR FACTOR :	0.500	0.911	0.700	0.000	0.837	0.839	0.521	0.000	0.722	0.778	0.750	0.000	0.693	0.688	0.821	0.000	0.906
	0.920				0.895				0.750				0.837				

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Greenbush/Rte 340
City: Orangeburg
Control: Signalized

Project ID: 22-380027-003
Date: 6/2/2022

Data - Buses

NS/EW Streets:	Route 303				Route 303				Greenbush/Rte 340				Greenbush/Rte 340				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	1	0	0	3	4	0	0	0	0	0	0	0	0	0	0	8
7:15 AM	0	1	1	0	4	2	1	0	0	0	0	0	0	0	1	0	10
7:30 AM	0	0	0	0	3	4	0	0	0	0	0	0	1	0	0	0	8
7:45 AM	0	3	0	0	0	1	1	0	0	0	0	0	0	0	7	0	12
8:00 AM	0	2	0	0	1	1	1	0	0	0	0	0	0	0	4	0	9
8:15 AM	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	3	1	0	0	0	0	0	0	2	0	2	0	8
8:45 AM	0	1	0	0	4	2	0	0	0	1	0	0	1	0	1	0	10
TOTAL VOLUMES :	NL 0	NT 9	NR 1	NU 0	SL 20	ST 16	SR 3	SU 0	EL 0	ET 1	ER 0	EU 0	WL 4	WT 0	WR 15	WU 0	TOTAL 69
APPROACH %'s :	0.00%	90.00%	10.00%	0.00%	51.28%	41.03%	7.69%	0.00%	0.00%	100.00%	0.00%	0.00%	21.05%	0.00%	78.95%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL 33
PEAK HR VOL :	0	6	0	0	6	4	2	0	0	0	0	0	2	0	13	0	
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.500	1.000	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.464	0.000	0.688
	0.500				0.750								0.536				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	0	3	0	0	1	2	0	0	0	0	0	0	0	0	2	0	8
4:15 PM	0	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	6
4:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	3
TOTAL VOLUMES :	NL 0	NT 11	NR 0	NU 0	SL 4	ST 6	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 9	WU 0	TOTAL 30
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	40.00%	60.00%	0.00%	0.00%	0	0	0	0	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL 24
PEAK HR VOL :	0	9	0	0	3	4	0	0	0	0	0	0	0	0	8	0	
PEAK HR FACTOR :	0.000	0.563	0.000	0.000	0.375	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.750
	0.563				0.438								0.667				

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Greenbush/Rte 340
City: Orangeburg
Control: Signalized

Project ID: 22-380027-003
Date: 6/2/2022

Data - Bikes

NS/EW Streets:	Route 303				Route 303				Greenbush/Rte 340				Greenbush/Rte 340			
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	2 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 1	ST 0	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 1	WU 0
APPROACH %'s :	100.00%				0.00%				0.00%				100.00%			
PEAK HR :	07:45 AM - 08:45 AM				1				0				0			
PEAK HR VOL :	0	0	0	0	0.250	0	0	0	0	0	0	0	0	0	1	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000
TOTAL					2				0				2			
0.500																
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	0 NL	2 NT	0 NR	0 NU	0.5 SL	1.5 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0
APPROACH %'s :	0.00%				0.00%				0.00%				0.00%			
PEAK HR :	04:00 PM - 05:00 PM				0				0				0			
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL					0				0				0			

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Greenbush/Rte 340
City: Orangeburg

Project ID: 22-380027-003
Date: 6/2/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Route 303		Route 303		Greenbush/Rte 340		Greenbush/Rte 340		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	1	0	1	0	0	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	1	0	1	1	0	3
PEAK HR :	07:45 AM - 08:45 AM		0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	
PEAK HR VOL :	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :							0.250	0.250	0.250

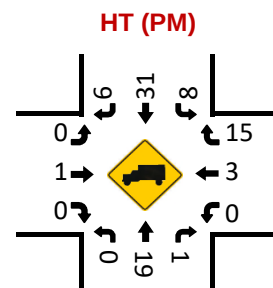
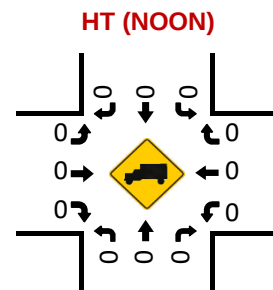
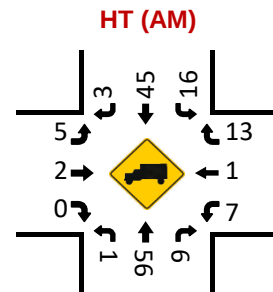
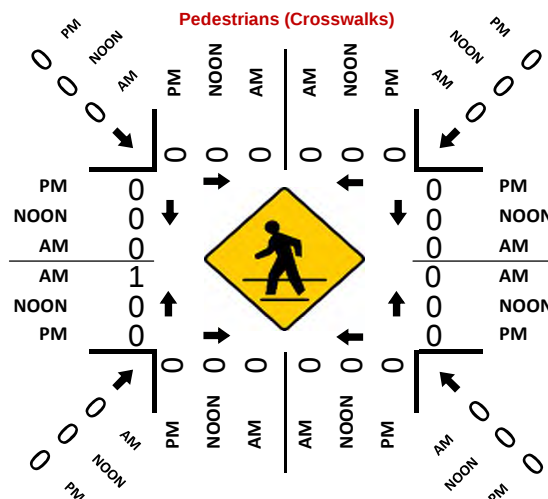
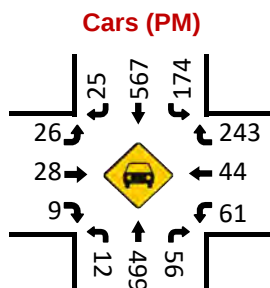
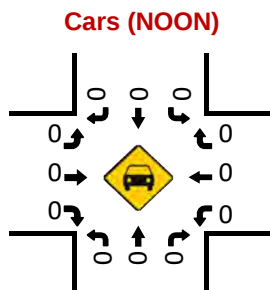
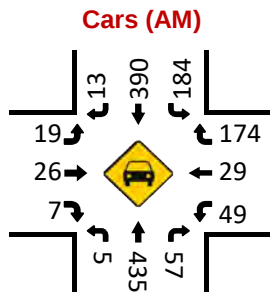
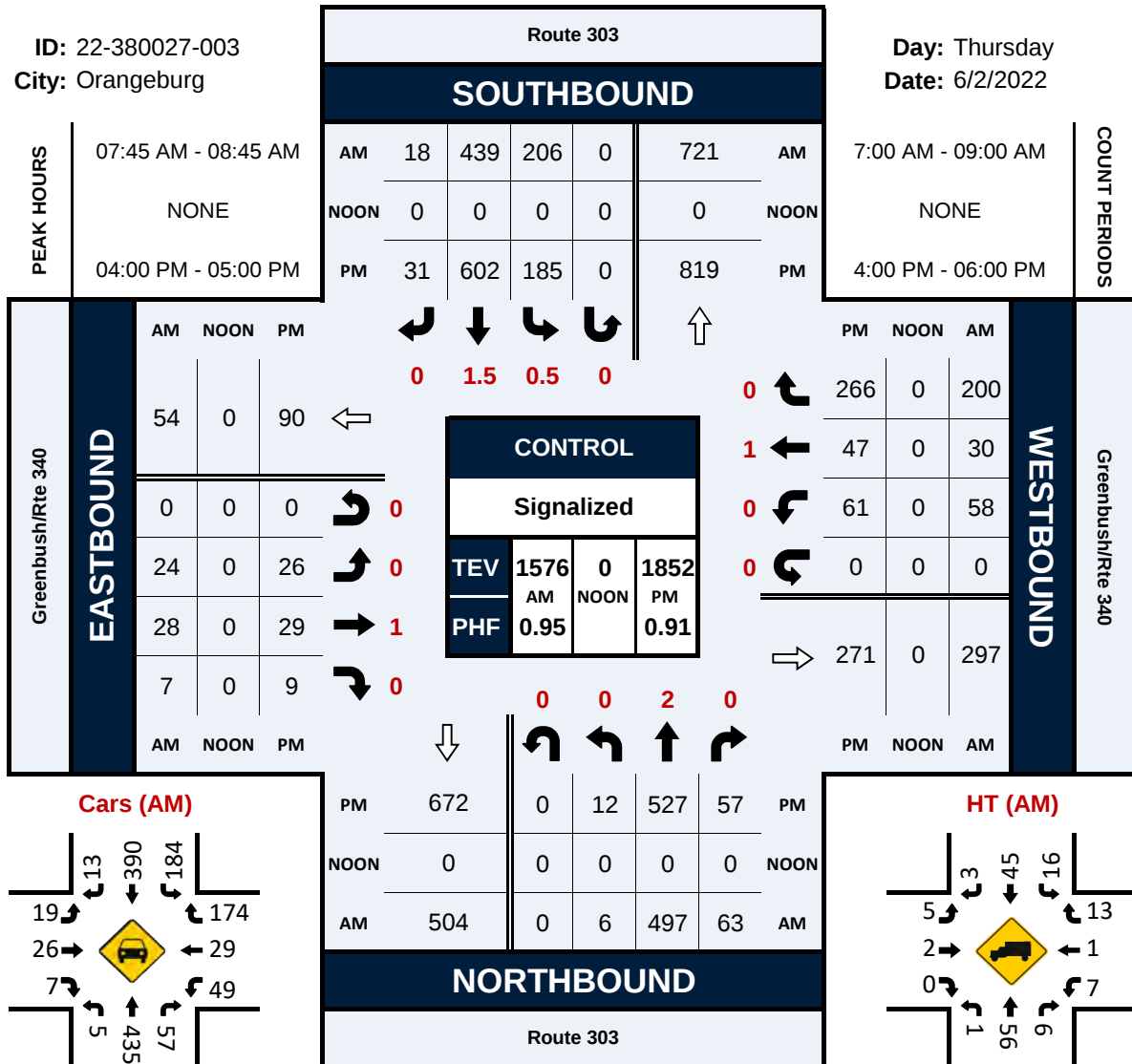
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Route 303 & Greenbush/Rte 340

Peak Hour Turning Movement Count

ID: 22-380027-003
City: Orangeburg

Day: Thursday
Date: 6/2/2022



National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Glenshaw St
City: Orangeburg
Control: Signalized

Project ID: 22-380027-004
Date: 6/2/2022

Data - Total

NS/EW Streets:	Route 303				Route 303				Glenshaw St				Glenshaw St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	7	74	0	0	0	96	6	0	0	0	2	0	0	0	0	0	185
7:15 AM	9	110	0	0	0	101	4	0	1	0	2	0	0	0	0	0	227
7:30 AM	18	145	0	0	0	124	10	0	2	0	3	0	0	0	0	0	302
7:45 AM	3	149	0	0	0	144	18	0	5	0	1	0	0	0	0	0	320
8:00 AM	12	121	0	0	0	150	14	0	11	0	9	0	0	0	0	0	317
8:15 AM	11	116	0	0	0	136	8	0	2	0	5	0	0	0	0	0	278
8:30 AM	9	120	0	0	0	150	10	0	6	0	6	0	0	0	0	0	301
8:45 AM	11	122	0	0	0	125	11	0	4	0	2	0	0	0	0	0	275
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	80	957	0	0	0	1026	81	0	31	0	30	0	0	0	0	0	2205
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	44	531	0	0	0	554	50	0	20	0	18	0	0	0	0	0	1217
PEAK HR FACTOR :	0.611	0.891	0.000	0.000	0.000	0.923	0.694	0.000	0.455	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.951
	0.882				0.921				0.475								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	2	165	0	0	0	132	3	0	9	0	9	0	0	0	0	0	320
4:15 PM	2	171	0	0	0	147	4	0	2	0	4	0	0	0	0	0	330
4:30 PM	2	196	0	0	0	167	8	0	7	0	8	0	0	0	0	0	388
4:45 PM	3	164	0	0	0	206	3	0	12	0	11	0	0	0	0	0	399
5:00 PM	2	142	0	0	0	179	2	0	14	0	26	0	0	0	0	0	365
5:15 PM	3	149	0	0	0	166	1	0	10	0	22	0	0	0	0	0	351
5:30 PM	3	135	0	0	0	193	1	0	3	0	16	0	0	0	0	0	351
5:45 PM	1	147	0	0	0	176	2	0	5	0	10	0	0	0	0	0	341
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	18	1269	0	0	0	1366	24	0	62	0	106	0	0	0	0	0	2845
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	10	651	0	0	0	718	14	0	43	0	67	0	0	0	0	0	1503
PEAK HR FACTOR :	0.833	0.830	0.000	0.000	0.000	0.871	0.438	0.000	0.768	0.000	0.644	0.000	0.000	0.000	0.000	0.000	0.942
	0.835				0.876				0.688								

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Glenshaw St
City: Orangeburg
Control: Signalized

Project ID: 22-380027-004
Date: 6/2/2022

Data - Cars

NS/EW Streets:	Route 303				Route 303				Glenshaw St				Glenshaw St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	7	66	0	0	0	79	4	0	0	0	1	0	0	0	0	0	157
7:15 AM	9	97	0	0	0	75	4	0	1	0	2	0	0	0	0	0	188
7:30 AM	18	129	0	0	0	105	8	0	1	0	3	0	0	0	0	0	264
7:45 AM	3	116	0	0	0	128	17	0	5	0	0	0	0	0	0	0	269
8:00 AM	12	105	0	0	0	132	12	0	6	0	7	0	0	0	0	0	274
8:15 AM	11	87	0	0	0	123	8	0	0	0	2	0	0	0	0	0	231
8:30 AM	8	101	0	0	0	130	8	0	1	0	3	0	0	0	0	0	251
8:45 AM	11	100	0	0	0	99	8	0	2	0	2	0	0	0	0	0	222
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	79	801	0	0	0	871	69	0	16	0	20	0	0	0	0	0	1856
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	44	437	0	0	0	488	45	0	12	0	12	0	0	0	0	0	1038
PEAK HR FACTOR :	0.611	0.847	0.000	0.000	0.000	0.924	0.662	0.000	0.500	0.000	0.429	0.000	0.000	0.000	0.000	0.000	0.947
	0.818				0.919				0.462								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	159	0	0	0	120	3	0	8	0	9	0	0	0	0	0	299
4:15 PM	1	161	0	0	0	131	3	0	2	0	3	0	0	0	0	0	301
4:30 PM	0	182	0	0	0	159	3	0	5	0	6	0	0	0	0	0	355
4:45 PM	2	150	0	0	0	199	1	0	9	0	10	0	0	0	0	0	371
5:00 PM	0	128	0	0	0	172	2	0	13	0	25	0	0	0	0	0	340
5:15 PM	1	143	0	0	0	160	1	0	8	0	21	0	0	0	0	0	334
5:30 PM	1	131	0	0	0	188	0	0	3	0	15	0	0	0	0	0	338
5:45 PM	1	140	0	0	0	168	1	0	4	0	9	0	0	0	0	0	323
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	6	1194	0	0	0	1297	14	0	52	0	98	0	0	0	0	0	2661
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	3	603	0	0	0	690	7	0	35	0	62	0	0	0	0	0	1400
PEAK HR FACTOR :	0.375	0.828	0.000	0.000	0.000	0.867	0.583	0.000	0.673	0.000	0.620	0.000	0.000	0.000	0.000	0.000	0.943
	0.832				0.871				0.638								

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Glenshaw St
City: Orangeburg
Control: Signalized

Project ID: 22-380027-004
Date: 6/2/2022

Data - HT

NS/EW Streets:	Route 303				Route 303				Glenshaw St				Glenshaw St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	7	0	0	0	14	2	0	0	0	1	0	0	0	0	0	24
7:15 AM	0	11	0	0	0	23	0	0	0	0	0	0	0	0	0	0	34
7:30 AM	0	12	0	0	0	16	2	0	0	0	0	0	0	0	0	0	30
7:45 AM	0	28	0	0	0	13	1	0	0	0	1	0	0	0	0	0	43
8:00 AM	0	15	0	0	0	15	2	0	4	0	2	0	0	0	0	0	38
8:15 AM	0	21	0	0	0	12	0	0	2	0	3	0	0	0	0	0	38
8:30 AM	1	13	0	0	0	19	2	0	5	0	3	0	0	0	0	0	43
8:45 AM	0	21	0	0	0	22	3	0	2	0	0	0	0	0	0	0	48
TOTAL VOLUMES :	NL 1	NT 128	NR 0	NU 0	SL 0	ST 134	SR 12	SU 0	EL 13	ET 0	ER 10	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 298
APPROACH %'s :	0.78%	99.22%	0.00%	0.00%	0.00%	91.78%	8.22%	0.00%	56.52%	0.00%	43.48%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	76	0	0	0	56	5	0	6	0	6	0	0	0	0	0	149
PEAK HR FACTOR :	0.000	0.679	0.000	0.000	0.000	0.875	0.625	0.000	0.375	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.866
	0.679				0.847				0.500								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	2	4	0	0	0	10	0	0	1	0	0	0	0	0	0	0	17
4:15 PM	1	10	0	0	0	13	1	0	0	0	1	0	0	0	0	0	26
4:30 PM	2	12	0	0	0	8	5	0	2	0	2	0	0	0	0	0	31
4:45 PM	1	12	0	0	0	7	2	0	3	0	1	0	0	0	0	0	26
5:00 PM	2	13	0	0	0	6	0	0	1	0	1	0	0	0	0	0	23
5:15 PM	2	6	0	0	0	5	0	0	2	0	1	0	0	0	0	0	16
5:30 PM	2	4	0	0	0	5	1	0	0	0	1	0	0	0	0	0	13
5:45 PM	0	4	0	0	0	8	1	0	1	0	1	0	0	0	0	0	15
TOTAL VOLUMES :	NL 12	NT 65	NR 0	NU 0	SL 0	ST 62	SR 10	SU 0	EL 10	ET 0	ER 8	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 167
APPROACH %'s :	15.58%	84.42%	0.00%	0.00%	0.00%	86.11%	13.89%	0.00%	55.56%	0.00%	44.44%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	7	43	0	0	0	26	7	0	8	0	5	0	0	0	0	0	96
PEAK HR FACTOR :	0.875	0.827	0.000	0.000	0.000	0.813	0.350	0.000	0.667	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.774
	0.833				0.635				0.813								

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Glenshaw St
City: Orangeburg
Control: Signalized

Project ID: 22-380027-004
Date: 6/2/2022

Data - Buses

NS/EW Streets:	Route 303				Route 303				Glenshaw St				Glenshaw St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
7:30 AM	0	4	0	0	0	3	0	0	1	0	0	0	0	0	0	0	8
7:45 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
8:00 AM	0	1	0	0	0	3	0	0	1	0	0	0	0	0	0	0	5
8:15 AM	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
8:30 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
TOTAL VOLUMES :	NL 0	NT 28	NR 0	NU 0	SL 0	ST 21	SR 0	SU 0	EL 2	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 51
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	18	0	0	0	10	0	0	2	0	0	0	0	0	0	0	30
PEAK HR FACTOR :	0.000	0.563	0.000	0.000	0.000	0.833	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.833
	0.563				0.833				0.500								
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	2 NT	0 NR	0 NU	0 SL	2 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TOTAL VOLUMES :	NL 0	NT 10	NR 0	NU 0	SL 0	ST 7	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 17
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.000	0.625	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875
	0.625				0.500												

National Data & Surveying ServicesIntersection Turning Movement Count

Location: Route 303 & Glenshaw St
City: Orangeburg
Control: Signalized

Project ID: 22-380027-004
Date: 6/2/2022

Data - Bikes

[illegible]

National Data & Surveying Services Intersection Turning Movement Count

Location: Route 303 & Glenshaw St
City: Orangeburg

Project ID: 22-380027-004
Date: 6/2/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Route 303		Route 303		Glenshaw St		Glenshaw St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

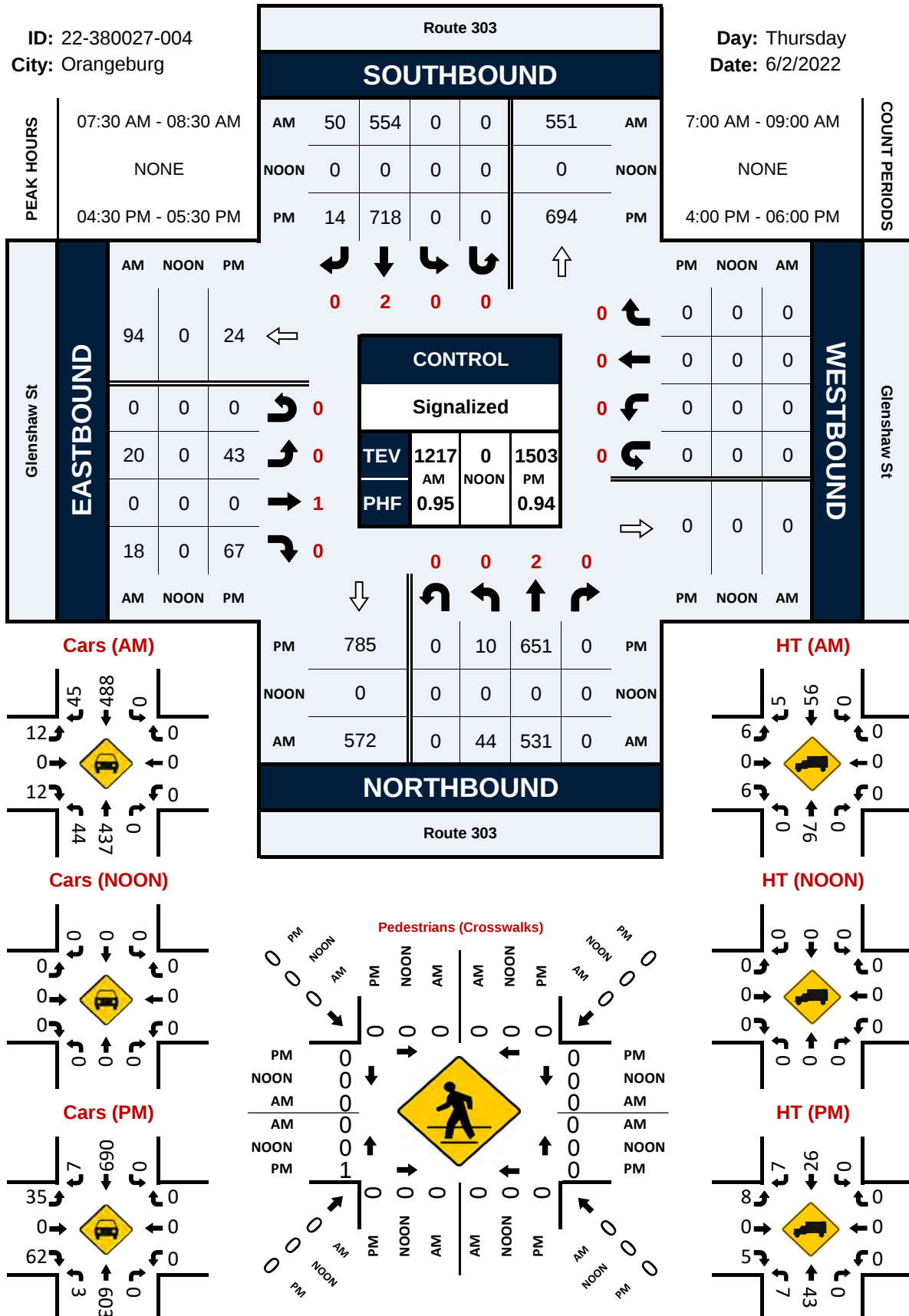
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	2	0	2
PEAK HR :	04:30 PM - 05:30 PM						100.00%	0.00%	
PEAK HR VOL :	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :							0.250	0.250	0.250

Route 303 & Glenshaw St

Peak Hour Turning Movement Count

ID: 22-380027-004
City: Orangeburg

Day: Thursday
Date: 6/2/2022



**STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING & SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATIONS**

STUDY :
CONTRACT :
PIN :
FILE :

R-86

ROCKLAND

PAGE 1 OF 20 PAGES

SIGNAL NO(S)

COUNTY

INTERSECTION Route 303 @ Mountainview Ave.

☐ CITY ☐ VILLAGE ☒ TOWN OF ORANGEBURG

Department Order filed 11/10/96 as Section 2039.15 Subdivision _____

Prior specifications hereby superseded ☐ None ☒ August 14, 1996

Purpose : REPLACE SIGNAL UNDER CONTRACT #D258360, INSTALL LEAD/LAG S.B./N.B
ARROWS ADD PEDS A & B

These specifications will be effective upon the ☐ Installation ☒ Modification of
the necessary traffic control device(s) required by and conforming to the State Manual
of Uniform Traffic Control Devices

I. This Signal shall

A. Operate in accordance with the Table of Operations and / of Change intervals as
shown on page(s) 2 as a :

- ☐ Pretimed Signal
☐ Semi-traffic actuated signal
☒ Full-traffic actuated signal
☐ Pedestrian actuated signal
☐ Other _____

- B. ☒ Display vehicular indications
☒ Display pedestrian indications
☒ Be equipped with vehicle detectors
☒ Be equipped with Pedestrian pushbuttons

as shown in the ☐ schematic ☒ scaled drawing on page 3

- C. Be equipped with ☐ pre-emption ☐ interconnection and / or coordination
which are described as follows

cc: (1) ☒ Main Office
(1) ☒ Region 8 Traffic Engineer
(1) ☒ MILLWOOD FIELD OFC.
(1) ☒ CONTRACT MAINTAINER

9/10/1

Date

Signature

RTE

Title

Installation Date

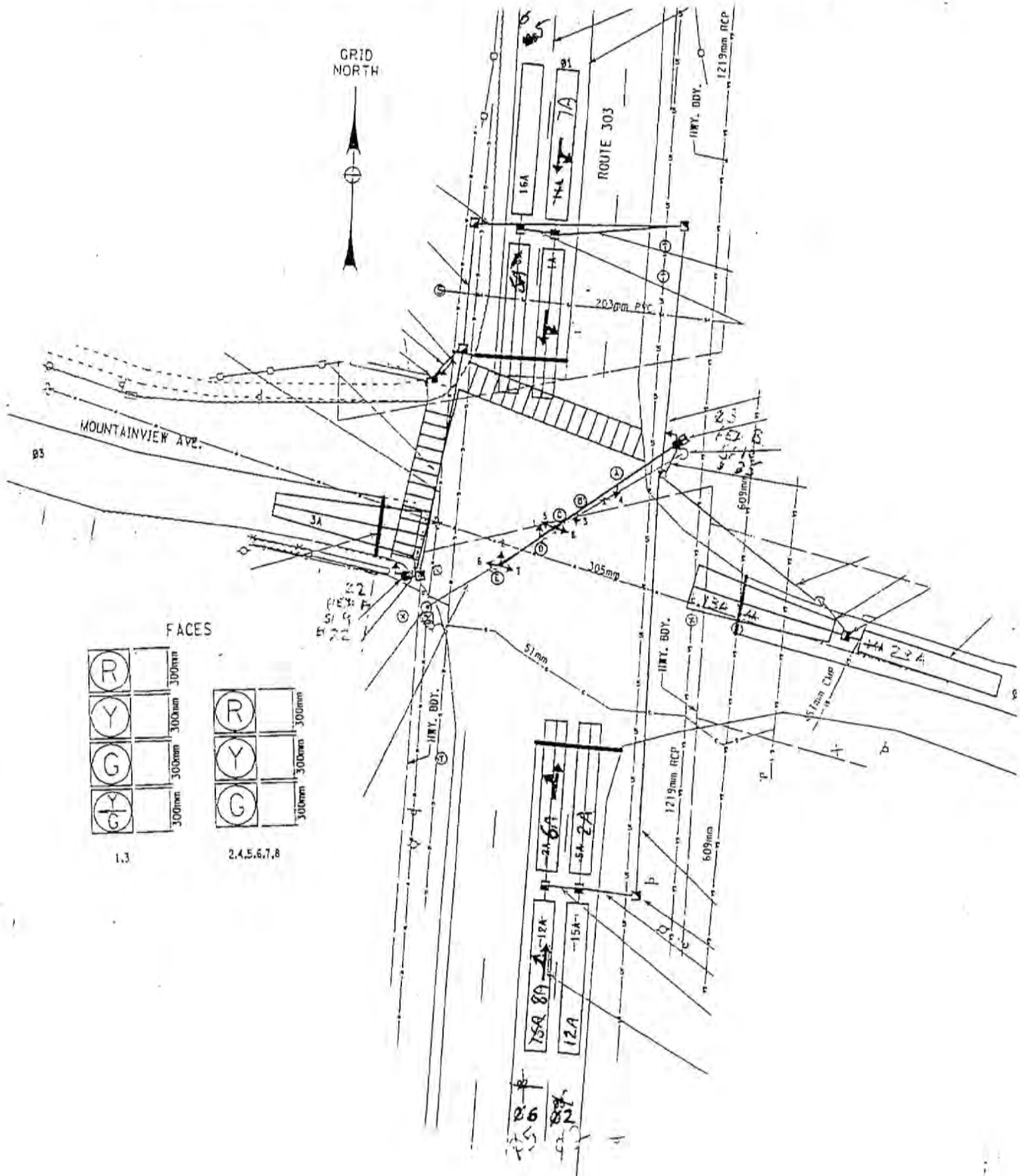
Modification Date

September 10, 2001

SIGNAL # R-86

COUNTY ROCKLAND

DATE 2



Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

STD8

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]													
Phase Times [1.1.1]													
	1	2	3	4	5	6	7	8	Pat#	Cyc	Off	Split	Seq
Min Green	5	5	5						1	110	5	1	1
Gap, Ext	3	2	2						2			2	1
Max 1	45	45	30						3			3	1
Max 2									4			4	1
Yel Clearance	5	5	4						5			5	1
Red Clearance	1	1	1						6			6	1
Walk	7	7	7						7			7	1
Ped Clearance	15	18							8			8	1
Red Revert									9			9	1
Add Initial									10			10	1
Max Initial									11			11	1
Time B4 Reduct									12			12	1
Cars B4 Reduct									Split			1	2
Time To Reduce									1	40	40	30	13
Reduce By									2		MAX		14
Min Gap									3				15
DynMaxLim									4				16
Max Step									5				17
Options [1.1.2]	1	2	3	4	5	6	7	8	1	2	3	4	5
Enable	On	On	On						Coor				
Min Recall									2				
Max Recall	On								Coor				
Ped Recall									Coor				
Soft Recall									Coor				
Lock Calls									Coor				
Auto Flash Entry									Coor				
Auto Flash Exit									Coor				
Dual Entry	On	On	On	On	On	On	On	On	Coor				
Enable Simul Gap	On	On	On	On	On	On	On	On	Coor				
Gauranteee Passag									Coor				
Rest In Walk									Coor				
Conditon Service									Coor				
Non-Actuated 1									Coor				
Non-Actuated 2									Coor				
Add Init Calc									Coor				
Options+ [1.1.3]	1	2	3	4	5	6	7	8	1	2	3	4	5
Reservice									Coor				
PedCir Thru Yel									Coor				
Skip Red No Call									Coor				
Red Rest									Coor				
Max II									Coor				
Call Phase									Coor				
Conflicting Phase									Coor				
Omit Yellow									Coor				
Ped Delay									Coor				
Gm/Ped Delay									Coor				
ID: 5086 RTE 303 @ MOUNTAIN VIEW AVE													
Misc - Events/Alarms: Call/Inhibit/Redirect, P/OLAP Auto Flash; C/C: Misc Unit Param													
Communications; Security: I/O Setup													
Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)													
Annual Schedule													
Preemption and Alternate Phase Time and Phase Options													
Detection; Sample Time and Unit Parameters related to detection													
Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)													
16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param													
8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param													
Page#													
12													
11													
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5													
4													
3													
2													
1A													

Overlap 1-16 Program Params & Param+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	OFF
Included Ø				NORMAL	Included Ø		
1	Modifier Ø			Gm	9	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
A	Conflict Olap			Red 1.5	I	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
2	Modifier Ø			Gm	10	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
B	Conflict Olap			Red 1.5	J	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
3	Modifier Ø			Gm	11	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
C	Conflict Olap			Red 1.5	K	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
4	Modifier Ø			Gm	12	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
D	Conflict Olap			Red 1.5	L	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
5	Modifier Ø			Gm	13	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
E	Conflict Olap			Red 1.5	M	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
6	Modifier Ø			Gm	14	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
F	Conflict Olap			Red 1.5	N	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
7	Modifier Ø			Gm	15	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
G	Conflict Olap			Red 1.5	O	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	
	Included Ø			NORMAL		Included Ø	
8	Modifier Ø			Gm	16	Modifier Ø	
	Conflict Ø			Yel 3.5		Conflict Ø	
H	Conflict Olap			Red 1.5	P	Conflict Olap	
	Conflict Ped			LG		Conflict Ped	

Channel Settings [1.8.1]

Channel ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	1	2	1	2	1	3	1	3	3												
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED
Alt HZ																								

Channel+ Settings [1.8.4]

Channel ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovr																								

Coord Transition, CoordPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø	E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22				EndGRN				
2	12	22				EndGRN				
3	12	22				EndGRN				
4	12	22				EndGRN				
5	12	22				EndGRN				
6	12	22				EndGRN				
7	12	22				EndGRN				
8	12	22				EndGRN				
9	12	22				EndGRN				
10	12	22				EndGRN				
11	12	22				EndGRN				
12	12	22				EndGRN				
13	12	22				EndGRN				
14	12	22				EndGRN				
15	12	22				EndGRN				
16	12	22				EndGRN				
17	12	22				EndGRN				
18	12	22				EndGRN				
19	12	22				EndGRN				
20	12	22				EndGRN				
21	12	22				EndGRN				
22	12	22				EndGRN				
23	12	22				EndGRN				
24	12	22				EndGRN				
25						BegGRN				
26						BegGRN				
27						BegGRN				
28						BegGRN				
29						BegGRN				
30						BegGRN				
31						BegGRN				
32						BegGRN				
33						BegGRN				
34						BegGRN				
35						BegGRN				
36						BegGRN				
37						BegGRN				
38						BegGRN				
39						BegGRN				
40						BegGRN				
41						BegGRN				
42						BegGRN				
43						BegGRN				
44						BegGRN				
45						BegGRN				
46						BegGRN				
47						BegGRN				
48						BegGRN				

Channel Params[1.8.3]

C1 IO Mode USER	BIU Map	SINGLE	Invert Rail Input	OFF
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Ven Par 1-04 [5.1]										Vehicle Options 1-64 [5.2]										Parameters+ 1-64 [5.3]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Det #	Call	Swi	Day	Ext	Que	No	Max	Err	Fail	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	Lock	occ	vol	Det #	Call	Swi	Day	Ext	Que	Add	Red	Yell	

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	DWELL		
2	ON	RAIL	DWELL		
3	ON	EMERG	DWELL		
4	ON	EMERG	DWELL		
5	ON	EMERG	DWELL		
6	ON	EMERG	DWELL		
Pre #	MaxPres	MinGm	MinWik	PedCir	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Gtr	Min Dwell	Ext Dwell	PedCir+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	
Channel Parameters [1.8.3]	
D Conn Mappings	NONE
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #	Phases	Overlaps	Peds
1			
2			
3			
4			
5			
6			

Preemption Options+ [3.6]

Exit Phases [3.2]		Preemption Options+ [3.6]				Fish
Pre #	Exit Phase	Pre #	Lock	Override Auto	Override Fish	Link
1		1	ON	ON	ON	OFF
2		2	ON	ON	ON	OFF
3		3	ON	ON	ON	OFF
4		4	ON	ON	ON	OFF
5		5	ON	ON	ON	OFF
6		6	ON	ON	ON	OFF

Alt# 1 Times Table [1.1.6.1.2]

Column#.....->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grm								
Gap, Ext								
Max 1								
Max 2								
Yel Cir								
Red Cir								
Walk								
Ped Cir								

Alt# 2 Times Table [1.1.6.1.2]

Column#.....->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grm								
Gap, Ext								
Max 1								
Max 2								
Yel Cir								
Red Cir								
Walk								
Ped Cir								

Alt# 3 Times Table [1.1.6.1.3]

Column#.....->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grm								
Gap, Ext								
Max 1								
Max 2								
Yel Cir								
Red Cir								
Walk								
Ped Cir								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#.....->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Switch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#.....->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#.....->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#.....->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#.....->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Switch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#.....->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#.....->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#.....->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Annual Schedule [4.3] Month of Year												DayLink
Date												Plan To
Day of Week												
S M T W T F S												
1	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
2	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
3	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
4	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
5	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
6	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
7	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
8	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
9	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
10	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
11	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
12	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
13	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
14	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
15	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
16	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
17	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
18	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
19	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
20	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
21	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
22	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
23	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On
24	J F M A M J J A S O N D	On	On	On	On	On	On	On	On	On	On	On

Day Plans [4.4]										Action Table [4.5]										Coord Alternate Tables - Pat+ [2.6]																	
Day Plan 1			Day Plan 2			Day Plan 3			Action Table [4.5]										Coord Alternate Tables - Pat+ [2.6]																		
Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Ac#	Pat	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8	Pat	EOpt	Det	Cal	Int	CIC	CNA1	1	2	3	4	5	6	7	8	Max2
1	6	30	1	9		1	9	0	1	9												1													DFT	On	
2	18	30	99	10		2	18	0	99	10												2													DFT		
3	0	0	99	11		3	0	0	99	11												3													DFT		
4				12		4				12												4													DFT		
5				13		5				13												5													DFT		
6				14		6				14												6													DFT		
7				15		7				15												7													DFT		
8				16		8				16												8													DFT		
Day Plan 4			Day Plan 5			Day Plan 6			Action Table [4.5]										Coord Alternate Tables - Pat+ [2.6]																		
Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act		
1	0	0	0	9	0	1	0	0	0	9	0	0	0	0	1	0	0	0	9	0	0	10														DFT	
2	0	0	0	10	0	2	0	0	0	10	0	0	0	0	2	0	0	0	10	0	0	11													DFT		
3	0	0	0	11	0	3	0	0	0	11	0	0	0	0	3	0	0	0	11	0	0	12													DFT		
4	0	0	0	12	0	4	0	0	0	12	0	0	0	0	4	0	0	0	12	0	0	13													DFT		
5	0	0	0	13	0	5	0	0	0	13	0	0	0	0	5	0	0	0	13	0	0	14													DFT		
6	0	0	0	14	0	6	0	0	0	14	0	0	0	0	6	0	0	0	14	0	0	15													DFT		
7	0	0	0	15	0	7	0	0	0	15	0	0	0	0	7	0	0	0	15	0	0	16													DFT		
8	0	0	0	16	0	8	0	0	0	16	0	0	0	0	8	0	0	0	16	0	0	17													DFT		
Day Plan 7			Day Plan 8			Day Plan 9			Action Table [4.5]										Coord Alternate Tables - Pat+ [2.6]																		
Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act	Hour	Min	Act		
1	0	0	0	9	0	1	0	0	0	9	0	0	0	0	1	0	0	0	9	0	0	20															

C1-USER IO Map [1.8.9.1 In]									
I1-1	1	Veh Call 1	O1-1	1	Ch1 Red	C1-USER IO Map [1.8.9.2 Out]	O7-1	115	Not Used
I1-2	2	Veh Call 2	O1-2	49	Ch1 Green		O7-2	115	Not Used
I1-3	3	Veh Call 3	O1-3	2	Ch2 Red		O7-3	115	Not Used
I1-4	189	Unused	O1-4	26	Ch2 Yellow		O7-4	115	Not Used
I1-5	5	Veh Call 5	O1-5	50	Ch2 Green		O7-5	115	Not Used
I1-6	6	Veh Call 6	O1-6	3	Ch3 Red		O7-6	115	Not Used
I1-7	189	Unused	O1-7	27	Ch3 Yellow		O7-7	115	Not Used
I1-8	189	Unused	O1-8	51	Ch3 Green		O7-8	115	Not Used
I1-9	189	Unused	O2-1	4	Ch4 Red		O7-9	115	Not Used
I2-1	189	Unused	O2-2	52	Ch4 Green		O7-10	115	Not Used
I2-2	189	Unused	O2-3	5	Ch5 Red		O7-11	115	Not Used
I2-3	11	Veh Call 11	O2-4	29	Ch5 Yellow		O7-12	115	Not Used
I2-4	12	Veh Call 12	O2-5	53	Ch5 Green		O7-13	115	Not Used
I2-5	13	Veh Call 13	O2-6	6	Ch6 Red		O7-14	115	Not Used
I2-6	189	Unused	O2-7	30	Ch6 Yellow		O7-15	115	Not Used
I2-7	15	Veh Call 15	O2-8	54	Ch6 Green		O7-16	115	Not Used
I2-8	16	Veh Call 16	O3-1	7	Ch7 Red		O7-17	115	Not Used
I3-1	189	Unused	O3-2	55	Ch7 Green		O7-18	115	Not Used
I3-2	189	Unused	O3-3	8	Ch8 Red		O7-19	115	Not Used
I3-3	189	Unused	O3-4	32	Ch8 Yellow		O7-20	115	Not Used
I3-4	189	Unused	O3-5	56	Ch8 Green		O7-21	115	Not Used
I3-5	189	Unused	O3-6	9	Ch9 Red		O7-22	115	Not Used
I3-6	129	Ped Call 1	O3-7	23	Ch9 Yellow		O7-23	115	Not Used
I3-7	23	Veh Call 23	O3-8	57	Ch9 Green		O7-24	115	Not Used
I3-8	189	Unused	O4-1	10	Ch10 Red		O7-25	115	Not Used
I4-1			O4-2	58	Ch10 Green		O7-26	115	Not Used
I4-2			O4-3	11	Ch11 Red		O7-27	115	Not Used
I4-3			O4-4	35	Ch11 Yellow		O7-28	115	Not Used
I4-4			O4-5	59	Ch11 Green		O7-29	115	Not Used
I4-5	189	Unused	O4-6	12	Ch12 Red		O7-30	115	Not Used
I4-6	189	Unused	O4-7	36	Ch12 Yellow		O7-31	115	Not Used
I4-7	229	33xCMUStop	O4-8	60	Ch12 Green		O7-32	115	Not Used
I4-8	228	33xFlashSns	O5-1	28	Ch4 Yellow		O7-33	115	Not Used
I5-1	130	Ped Call 2	O5-2	34	Ch10 Yellow		O7-34	115	Not Used
I5-2	189	Unused	O5-3	25	Ch1 Yellow		O7-35	115	Not Used
I5-3	189	Unused	O5-4	31	Ch7 Yellow		O7-36	115	Not Used
I5-4	189	Unused	O5-5	115	Not Used		O7-37	115	Not Used
I5-5	189	Unused	O5-6	115	Not Used		O7-38	115	Not Used
I5-6	189	Unused	O5-7	115	Not Used		O7-39	115	Not Used
I5-7	189	Unused	O5-8	114	Watchdog		O7-40	115	Not Used
I5-8	189	Unused	O6-1	115	Not Used		O7-41	115	Not Used
I6-1	189	Unused	O6-2	115	Not Used		O7-42	115	Not Used
I6-2	189	Unused	O6-3	13	Ch13 Red		O7-43	115	Not Used
I6-3	189	Unused	O6-4	37	Ch13 Yellow		O7-44	115	Not Used
I6-4	189	Unused	O6-5	61	Ch13 Green		O7-45	115	Not Used
I6-5	189	Unused	O6-6	14	Ch14 Red		O7-46	115	Not Used
I6-6	189	Unused	O6-7	38	Ch14 Yellow		O7-47	115	Not Used
I6-7	189	Unused	O6-8	62	Ch14 Green		O7-48	115	Not Used
I6-8	189	Unused					O7-49	115	Not Used

C1-USER IO Map [1.8.9.2 Out]			
------------------------------	--	--	--

#	Event / Alarm	Ev	Alr	Call Phases [1.1.5]				Redirect Phases [1.1.5]				Inhibit Phases [1.1.5]															
		On	On	Ø	Phases Called By Ø	From	To	From	To	From	To	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Power Up Alarm.	On	On	1																							
2	Stop Timing	On	On	2																							
3	TST Cabinet Door			3																							
4	Coordination Failure	On	On	4																							
5	External Alarm # 1	On	On	5																							
6	External Alarm # 2	On	On	6																							
7	External Alarm # 3	On	On	7																							
8	External Alarm # 4			8																							
9	Closed Loop Disabled	On		9																							
10	External Alarm # 5			10																							
11	External Alarm # 6			11																							
12	Manual Control Enable	On	On	12																							
13	Coord Free Input			13																							
14	Local Flash Input	On	On	14																							
15	MMU Flash			15																							
16	CMU Flash			16																							
17	Cycle Fault	On																									
18	Cycle Failure	On																									
19	Coordination Fault	On																									
20	Controller Fault	On	On																								
21	Detector SDLC Failure																										
22	MMU SDLC Failure																										
23	Critical SDLC Failure																										
24	Reserved																										
25	EEPROM CRC Fault	On	On																								
26	Detector Diagnostic Failure																										
27	BIU Detector Failure	On	On																								
28	Queue detector alarm	On																									
29	Ped Detector Fault	On																									
30	Coord Diagnostic Fault																										
41	TempAlert Probe Ch. A																										
42	TempAlert Probe Ch. B																										
47	Coord Active																										
48	Preempt Active	On																									
49	Preempt 1 Input	On																									
50	Preempt 2 Input	On																									
51	Preempt 3 Input	On																									
52	Preempt 4 Input	On																									
53	Preempt 5 Input	On																									
54	Preempt 6 Input	On																									
55	Preempt 7 Input	On																									
56	Preempt 8 Input	On																									
57	Preempt 9 Input	On																									
58	Preempt 10 Input	On																									
61	In Transition	On																									
81	FIO Status Alarm																										

Alt Call & Redirect # 1 [1.1.6.3]				Alt Inhibit Phases # 1 [1.1.6.3]			
Col	Ø	Phases Called By Ø		From	To	From	To
1							
2							
3							
4							
5							
6							
7							
8							

Alt Call & Redirect # 2 [1.1.6.3]				Alt Inhibit Phases # 2 [1.1.6.3]			
Col	Ø	Phases Called By Ø		From	To	From	To
1							
2							
3							
4							
5							
6							
7							
8							

Coord, CIC Plans [2.3]				Unit Parameters [1.2.1]									
CIC CoØ	Grow	1	2	3	4	5	6	7	8	Allow Skip Yellow	Max Cycle Time	Cycle Fault Action	ALARM
1	OFF									OFF	OFF	OFF	ALARM
2	OFF									OFF	OFF	OFF	
3	OFF									Diamond Mode	4Ph		
4	OFF									Backup Time (s)	900		

Auto Flash Phase/Olap Settings [1.4.2]				Unit Parameters [1.2.1]								
Yel Ø				Yel (olaps)				Disable Init Ped	Cycle Fault Action	Enable Run Timer	ALARM	ON
								OFF	ALARM	ON		

**MODEL 179 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

TAPS _____
STUDY # _____
FILE # _____
PAGE 18 OF 20

SIGNAL # R-86COUNTY # Rockland

DATE _____

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL WIRING BOARD		FACE	TERMINAL WIRING BOARD	
				TERMINAL	WIRE COLOR CODE		TERMINAL	WIRE COLOR CODE
1	Ø1	----- ←----- ←----- Ground Wire	1	SP 1 R	-----		SP 1 R	
		Red		SP 1 Y	14/10c-D-O/B		SP 1 Y	
		Yellow		SP 1 G	-G/B		SP 1 G	
		Green		Grnd Bus	-W/B		Grnd Bus	
2	Ø2	Red	3	SP 2 R	14/10c-B-R	4	SP 2 R	14/5c-A-R
		Yellow		SP 2 Y	-O		SP 2 Y	-O
		Green		SP 2 G	-G		SP 2 G	-G
		Ground Wire		Grnd Bus	-W		Grnd Bus	-W
3	Ø3	Red	5	SP 3 R	14/5c-R	6	SP 3 R	14/15c-R/B
		Yellow		SP 3 Y	-O		SP 3 Y	-O/B
		Green		SP 3 G	-G		SP 3 G	-G/B
		Ground Wire		Grnd Bus	-W		Grnd Bus	-W/B
4		-----		SP 4 R			SP 4 R	
		-----		SP 4 Y			SP 4 Y	
		-----		SP 4 G			SP 4 G	
		Ground Wire		Grnd Bus			Grnd Bus	
5	Ø5	Red	1	SP 5 R	14/10c-D-R	2	SP 5 R	14/15c-E-R
		Yellow		SP 5 Y	-O		SP 5 Y	-O
		Green		SP 5 G	-G		SP 5 G	-G
		Ground Wire		Grnd Bus	-W		Grnd Bus	-W
6	Ø6	----- ←----- ←----- Ground Wire	3	SP 6 R	-----		SP 6 R	
				SP 6 Y	14/10c-B-O/B		SP 6 Y	
				SP 6 G	-G/B		SP 6 G	
				Grnd Bus	-W/B		Grnd Bus	
7		-----		SP 7 R			SP 7 R	
		-----		SP 7 Y			SP 7 Y	
		-----		SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8		-----		SP 8 R			SP 8 R	
		-----		SP 8 Y			SP 8 Y	
		-----		SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9	Ped "A" Ø2	Don't Walk	24	SP 9 R	14/5c-1P-R		SP 9 R	
		-----		SP 9 Y	-----		SP 9 Y	
		Walk		SP 9 G	-G		SP 9 G	
		Ground Wire		Grnd Bus	-W		Grnd Bus	
10	Ped "B" Ø3	Don't Walk	23	SP 10 R	14/5c-2P-R		SP 10 R	
		-----		SP 10 Y	-----		SP 10 Y	
		Walk		SP 10 G	-G		SP 10 G	
		Ground Wire		Grnd Bus	-W		Grnd Bus	
11		-----		SP 11 R			SP 11 R	
		-----		SP 11 Y			SP 11 Y	
		-----		SP 11 G			SP 11 G	
		Ground Wire		Grnd Bus			Grnd Bus	
12		-----		SP 12 R			SP 12 R	
		-----		SP 12 Y			SP 12 Y	
		-----		SP 12 G			SP 12 G	
		Ground Wire		Grnd Bus			Grnd Bus	
13	Ø3	Red	7	SP 13 R	14/15c-E-R/W	8	SP 13 R	14/10c-C-R/B
		Yellow		SP 13 Y	-BL/W		SP 13 Y	-O/B
		Green		SP 13 G	-G/W		SP 13 G	-G/B
		Ground Wire		Grnd Bus	-B/W		Grnd Bus	-W/B
14		-----		SP 14 R			SP 14 R	
		-----		SP 14 Y			SP 14 Y	
		-----		SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	

**MODEL 179 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

TAPS _____
 STUDY # _____
 FILE # _____
 PAGE 19 OF 20

SIGNAL # R-86COUNTY # Rockland

DATE _____

Conflict / Current Monitor Programmming

Diodes to be Cut			CONFLICT MONITOR YELLOW JUMPERS TO BE INSTALLED	CURRENT MONITOR DIODES TO BE CUT
Sp1-Sp5			Sp-9	1,4,6-12,14
Sp1-Sp6			Sp-10	
Sp1-Sp9				
Sp2-Sp5				
Sp2-Sp6				
Sp2-Sp9				
Sp3-Sp13				
Sp3-Sp10				
Sp5-Sp9				
Sp6-Sp9				
Sp10-Sp13				

NOTE :

**MODEL 179 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

TAPS _____
 STUDY # _____
 FILE # _____
 PAGE 20 OF 20

SIGNAL # R-86 COUNTY # Rockland DATE _____

TABLE OF INPUT WIRING

TERM. NUMBER	FUNCTION	DET. NO	DET. TYPE	DET. AN OVER	REMARKS
1A, 1B	Ø1	1A,1B	Quadrupole		Presence Loop
2A, 2B	Ø2	2A,2B	Quadrupole		Presence Loop
3A, 3B	Ø3	3A,3B	Quadrupole		Presence Loop
4A, 4B					
5A, 5B	Ø5	5A,5B	Quadrupole		Presence Loop
6A, 6B	Ø6	6A,6B	Quadrupole		Presence Loop
7A, 7B					
8A, 8B					
9A, 9B					
10A, 10B					
11A, 11B	Ø1	11A,11B	Normal		Presence Loop
12A, 12B	Ø2	12A,12B	Normal		Presence Loop
13A, 13B	Ø3	13A,13B	Quadrupole		Presence Loop
14A, 14B					
15A, 15B					
16A, 16B					
17A, 17B					
18A, 18B					
19A, 19B					
20A, 20B					
21A, 21B					
22A, 22B	Ped "A" Ø2	22	Button		Pedestrian
23A, 23B	Ø3	23	Normal		Presence Loop
24A, 24B					
25A, 25B	Ped "B" Ø3	25	Button		Pedestrian
26A, 26B					
27A, 27B					
28A, 28B					

STATE OF NEW YORK – DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATION



R - 102

SIGNAL NO.

ROCKLAND

COUNTY

Study:

Contract:

PIN: HWP# 20110825913

File: 37.07-9

INTERSECTION ROUTE 303 @ ORANGEBURGH ROAD

☐ CITY ☐ VILLAGE ☒ TOWN OF ORANGETOWN

Department Order filed 08/15/75 as Section: 2039.15 Subdivision: (r)

Prior specification hereby superseded ☐ None ☒ Dated: JULY 29, 1983

Purpose: **MODIFY BY ADDING CROSSWALKS AND BI MODAL ARROWS**

These specifications will be effective upon the ☐ Installation ☒ Modification / Reinstallation of the necessary traffic control device(s) required by and conforming to the Federal Manual on Uniform Traffic Control Devices.

This signal shall

- A. Operate in accordance with the table of operations and / or change intervals as shown on the attached pages as a:

- ☐ Pretimed Signal
☒ Semi-traffic actuated
☐ Full-traffic actuated
☒ Pedestrian actuated
☐ Other

- B. ☒ Display vehicular indications
☒ Display pedestrian indications
☒ Be equipped with vehicle detectors
☒ Be equipped with pedestrian buttons
as shown in the attached plans / drawings.

- C. Be equipped with ☐ Pre-emption ☐ Interconnection and/or coordination which are described as follows:

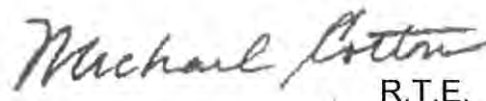
Description: SIGNAL CHANGING FROM P TO PS SM # 80926

- cc: ☒ Region 8 Traffic Engineer
☒ Signal Shop
☐ Contract Maintainer
☐ Main Office

11/28/12

Date

Installation Date


R.T.E.

Signature

Title

12/03
11/28/12

Reinstallation/Modification

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
 TRAFFIC AND SAFETY DIVISION
 TRAFFIC CONTROL SIGNAL SPECIFICATIONS (CONTINUED)

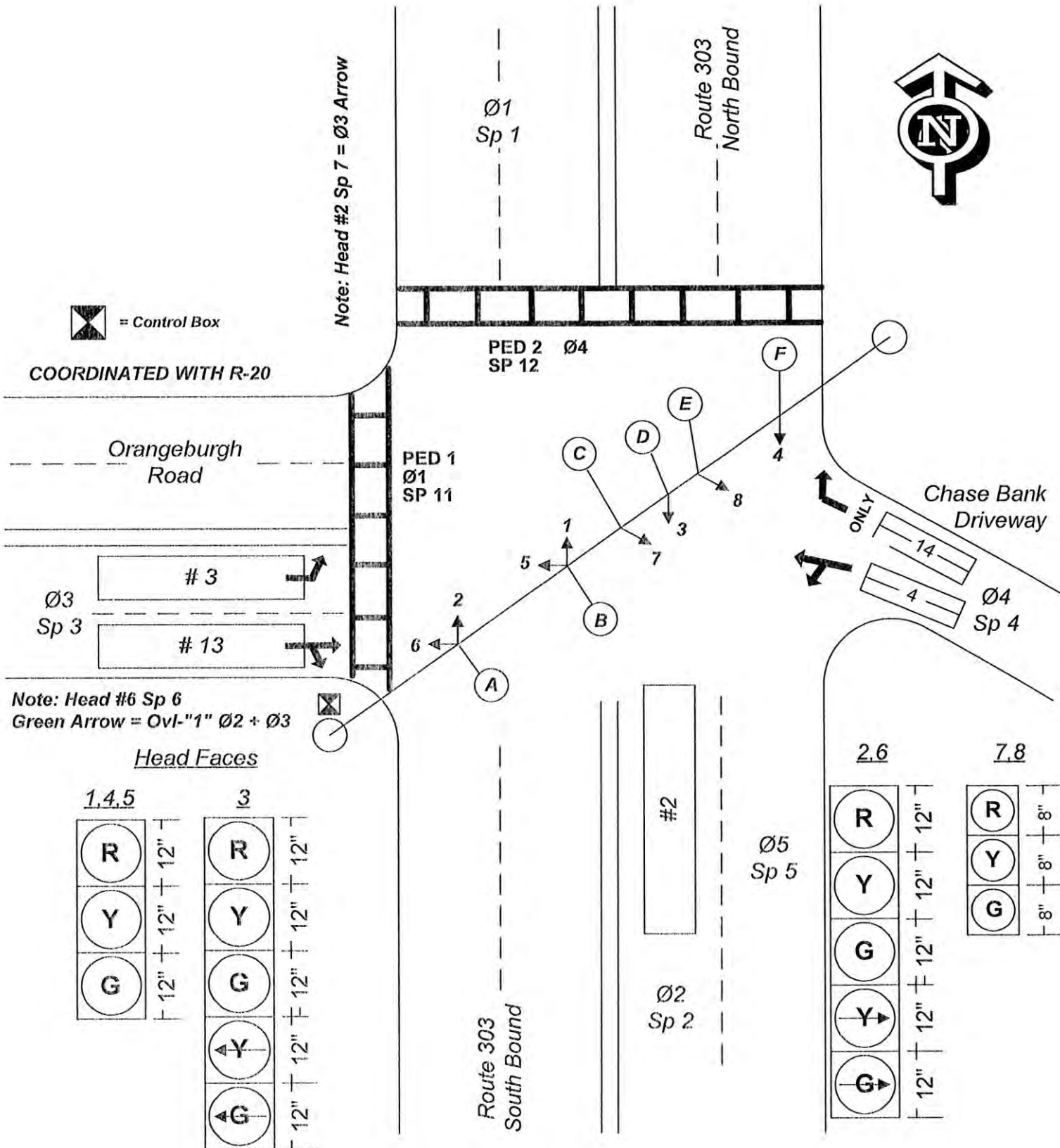
STUDY:
 CONTRACT:
 PIN:
 FILE:

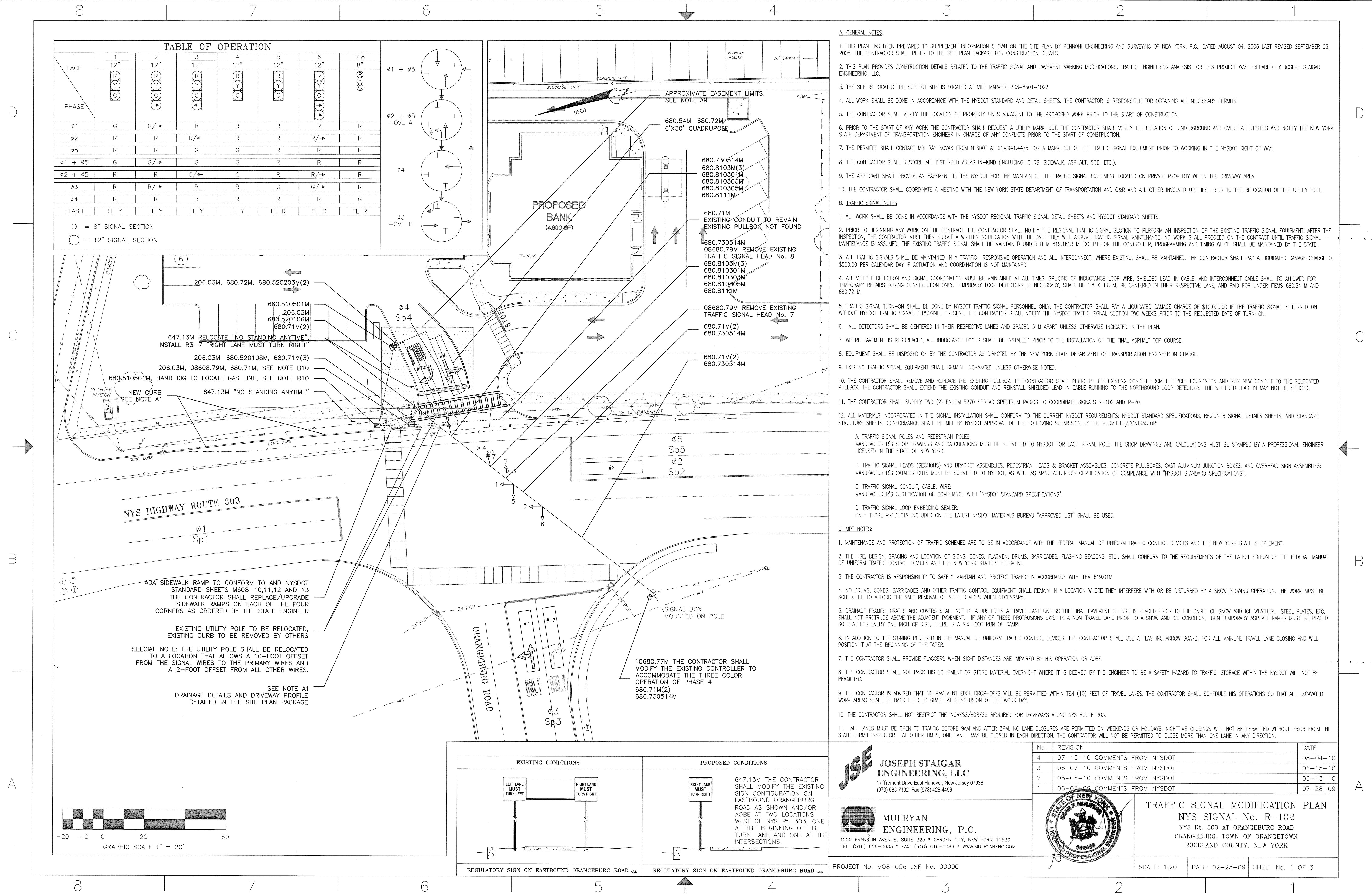
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 SIGNAL NO(S)

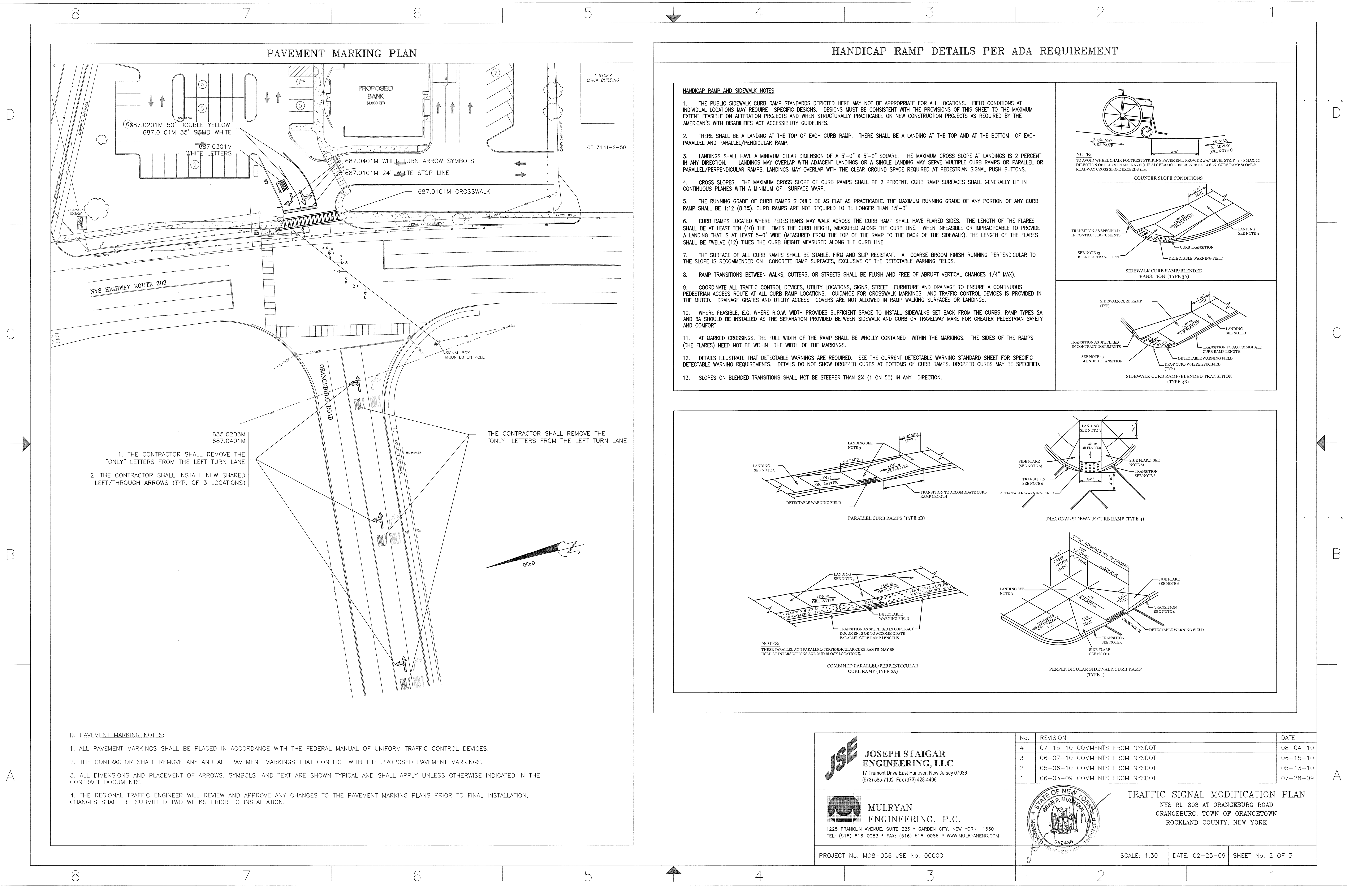
Rockland
 COUNTY

10-2012
 DATE

PAGE _____ OF _____ PAGES





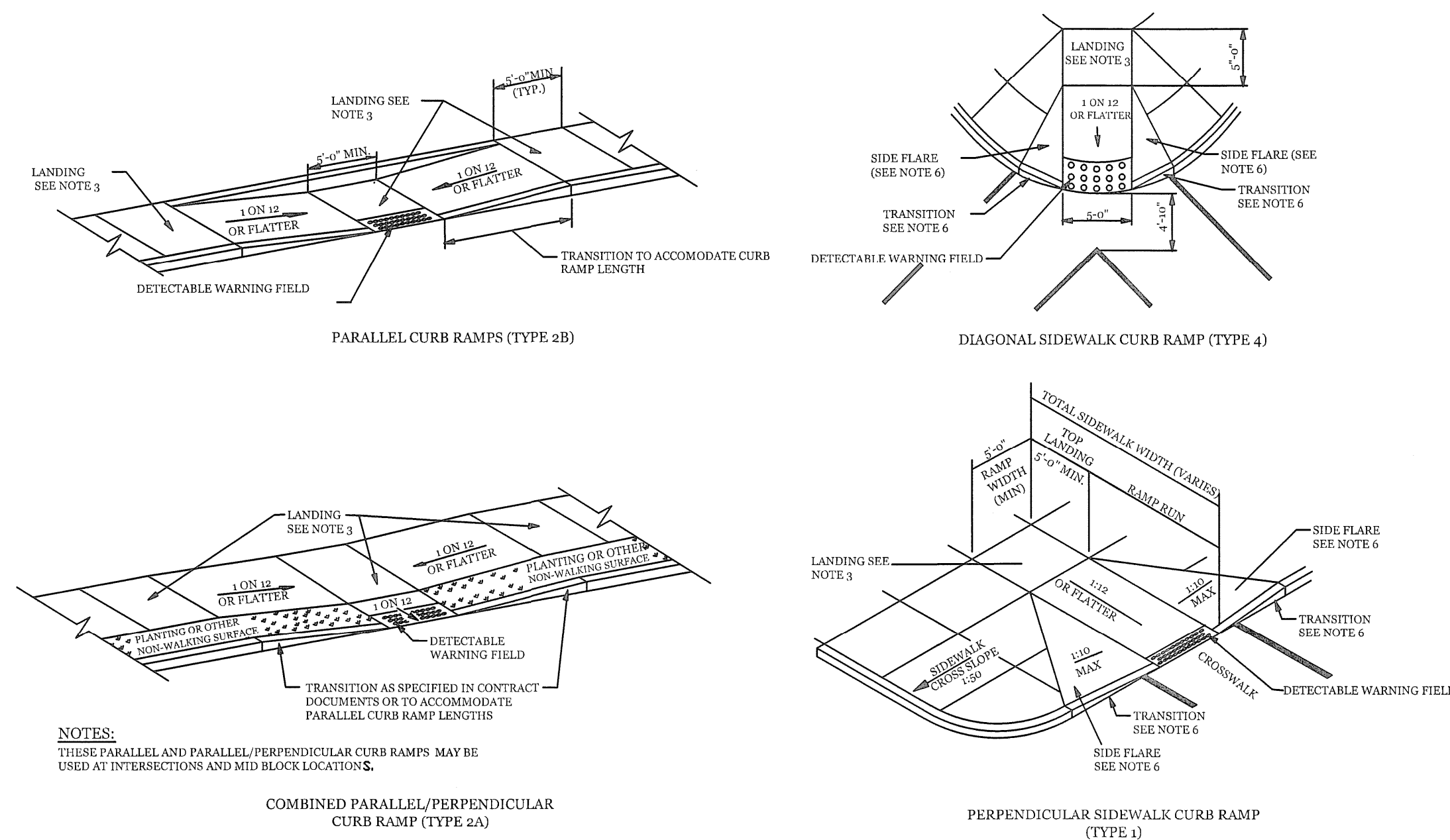
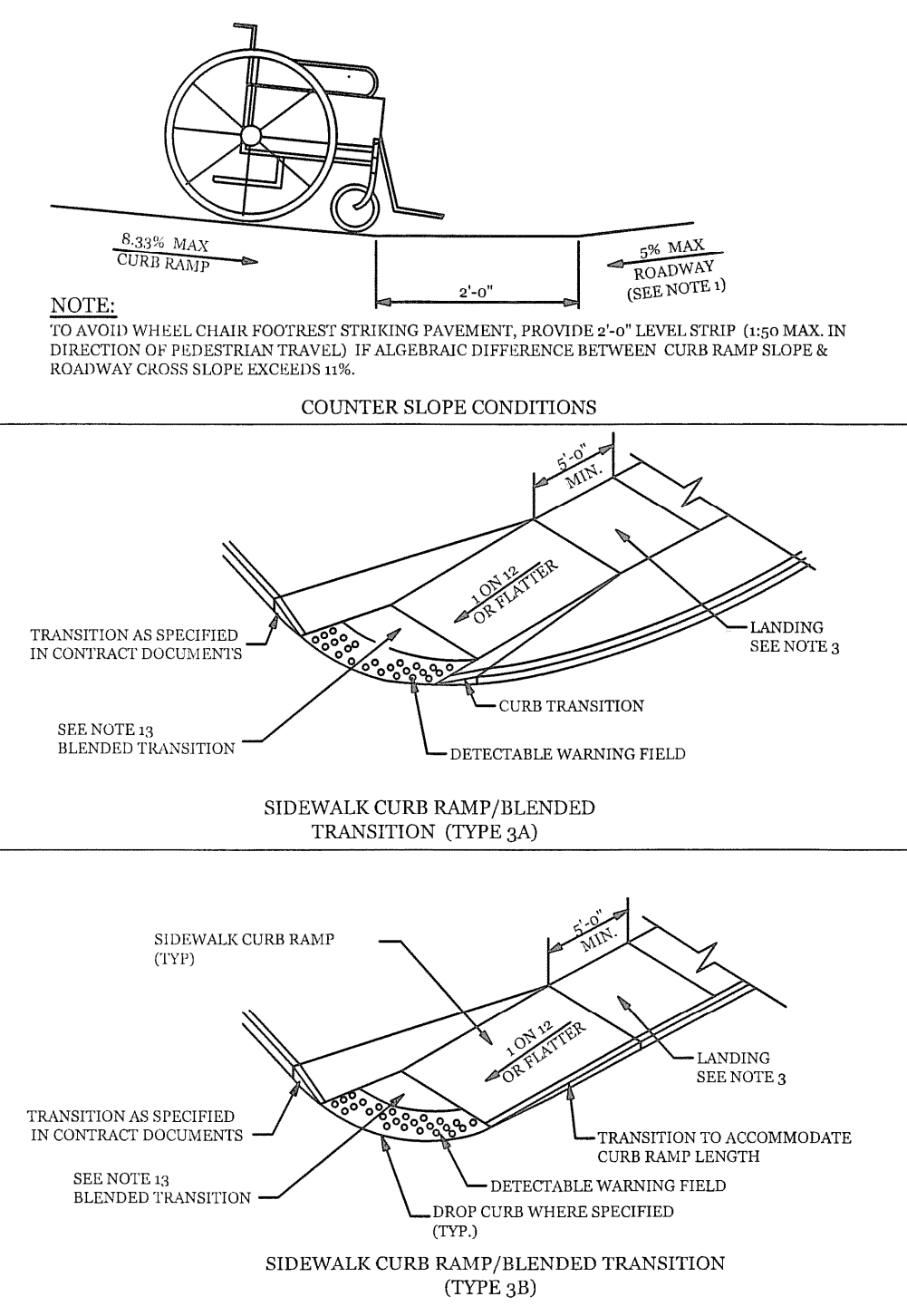


D. PAVEMENT MARKING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE FEDERAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL REMOVE ANY AND ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS.
3. ALL DIMENSIONS AND PLACEMENT OF ARROWS, SYMBOLS, AND TEXT ARE SHOWN TYPICAL AND SHALL APPLY UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.
4. THE REGIONAL TRAFFIC ENGINEER WILL REVIEW AND APPROVE ANY CHANGES TO THE PAVEMENT MARKING PLANS PRIOR TO FINAL INSTALLATION, CHANGES SHALL BE SUBMITTED TWO WEEKS PRIOR TO INSTALLATION.

HANDICAP RAMP AND SIDEWALK NOTES:

1. THE PUBLIC SIDEWALK CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THIS SHEET TO THE MAXIMUM EXTENT FEASIBLE ON ALTERATION PROJECTS AND WHEN STRUCTURALLY PRACTICABLE ON NEW CONSTRUCTION PROJECTS AS REQUIRED BY THE AMERICAN'S WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.
2. THERE SHALL BE A LANDING AT THE TOP OF EACH CURB RAMP. THERE SHALL BE A LANDING AT THE TOP AND AT THE BOTTOM OF EACH PARALLEL AND PARALLEL/PENDICULAR RAMP.
3. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF A 5'-0" X 5'-0" SQUARE. THE MAXIMUM CROSS SLOPE AT LANDINGS IS 2 PERCENT IN ANY DIRECTION. LANDINGS MAY OVERLAP WITH ADJACENT LANDINGS OR A SINGLE LANDING MAY SERVE MULTIPLE CURB RAMP OR PARALLEL OR PARALLEL/PERPENDICULAR RAMP. LANDINGS MAY OVERLAP WITH THE CLEAR GROUND SPACE REQUIRED AT PEDESTRIAN SIGNAL PUSH BUTTONS.
4. CROSS SLOPES. THE MAXIMUM CROSS SLOPE OF CURB RAMP SURFACES SHALL BE 2 PERCENT. CURB RAMP SURFACES SHALL GENERALLY LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
5. THE RUNNING GRADE OF CURB RAMP SHOULD BE AS FLAT AS PRACTICABLE. THE MAXIMUM RUNNING GRADE OF ANY PORTION OF ANY CURB RAMP SHALL BE 1:12 (8.3%). CURB RAMP ARE NOT REQUIRED TO BE LONGER THAN 15'-0".
6. CURB RAMP LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE. WHEN INFEASIBLE OR IMPRACTICABLE TO PROVIDE A LANDING THAT IS AT LEAST 5'-0" WIDE (MEASURED FROM THE TOP OF THE RAMP TO THE BACK OF THE SIDEWALK), THE LENGTH OF THE FLARES SHALL BE TWELVE (12) TIMES THE CURB HEIGHT MEASURED ALONG THE CURB LINE.
7. THE SURFACE OF ALL CURB RAMP SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
8. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES 1/4" MAX).
9. COORDINATE ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD. DRAINAGE GRATES AND UTILITY ACCESS COVERS ARE NOT ALLOWED IN RAMP WALKING SURFACES OR LANDINGS.
10. WHERE FEASIBLE, E.G. WHERE R.O.W. WIDTH PROVIDES SUFFICIENT SPACE TO INSTALL SIDEWALKS SET BACK FROM THE CURBS, RAMP TYPES 2A AND 3A SHOULD BE INSTALLED AS THE SEPARATION PROVIDED BETWEEN SIDEWALK AND CURB OR TRAVELWAY MAKE FOR GREATER PEDESTRIAN SAFETY AND COMFORT.
11. AT MARKED CROSSINGS, THE FULL WIDTH OF THE RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. THE SIDES OF THE RAMP (THE FLARES) NEED NOT BE WITHIN THE WIDTH OF THE MARKINGS.
12. DETAILS ILLUSTRATE THAT DETECTABLE WARNINGS ARE REQUIRED. SEE THE CURRENT DETECTABLE WARNING STANDARD SHEET FOR SPECIFIC DETECTABLE WARNING REQUIREMENTS. DETAILS DO NOT SHOW DROPPED CURBS AT BOTTOMS OF CURB RAMP. DROPPED CURBS MAY BE SPECIFIED.
13. SLOPES ON BLENDED TRANSITIONS SHALL NOT BE STEEPER THAN 2% (1 ON 50) IN ANY DIRECTION.



JSE
**JOSEPH STAIGAR
ENGINEERING, LLC**
17 Tremont Drive East Hanover, New Jersey 07936
(973) 585-7102 Fax (973) 428-4496

**MULRYAN
ENGINEERING, P.C.**
1225 FRANKLIN AVENUE, SUITE 325 * GARDEN CITY, NEW YORK 11530
TEL: (516) 616-0083 * FAX: (516) 616-0086 * WWW.MULRYANENG.COM

TRAFFIC SIGNAL MODIFICATION PLAN
NYS Rt. 303 AT ORANGETOWN ROAD
ORANGETOWN, TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

PROJECT No. M08-056 JSE No. 00000

No.	REVISION	DATE
4	07-15-10 COMMENTS FROM NYSDOT	08-04-10
3	06-07-10 COMMENTS FROM NYSDOT	06-15-10
2	05-06-10 COMMENTS FROM NYSDOT	05-13-10
1	06-03-09 COMMENTS FROM NYSDOT	07-28-09

SCALE: 1:30 DATE: 02-25-09 SHEET No. 2 OF 3

8

7

6

5

4

3

2

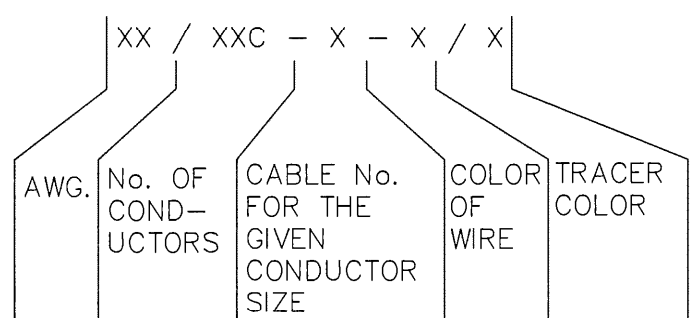
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SIGNAL OPERATION SPECIFICATIONS
TABLE OF SWITCH PACKS

SIGNAL NO. NYS Rt. 303 & ORANGEBURG RD. COUNTY ROCKLAND				
SWITCH PACK	FUNCTION	FACE	INDICATIONS	TERMINAL WIRING BOARD
SP 1	ø1	1,2	R Y G GRND. WIRE	TERMINAL
				WIRE COLOR CODE
				SP 1R
				SP 1Y
SP 2	ø2	3	← GRND. WIRE	SP 1G
				GRND. BUS
				SP 2R
				SP 2Y
SP 3	ø3	5,6	← GRND. WIRE	SP 2G
				GRND. BUS
				SP 3R
				SP 3Y
SP 4	ø4	7,8	R Y G GRND. WIRE	SP 3G
				GRND. BUS
				SP 4R
				SP 4Y
SP 5	ø5	3,4	R Y G GRND. WIRE	SP 4G
				GRND. BUS
				SP 5R
				SP 5Y
SP 6	OVL A ø2+ø5	6	→ GRND. WIRE	SP 5G
				GRND. BUS
				SP 6R
				SP 6Y
SP 7	OVL B ø3	2	→ GRND. WIRE	SP 6G
				GRND. BUS
				SP 7R
				SP 7Y
SP 8			GRND. WIRE	SP 7G
				GRND. BUS
				SP 8R
				SP 8Y
SP 9			GRND. WIRE	SP 8G
				GRND. BUS
				SP 9R
				SP 9Y
SP 10			GRND. WIRE	SP 9G
				GRND. BUS
				SP 10R
				SP 10Y
SP 11			GRND. WIRE	SP 10G
				GRND. BUS
				SP 11R
				SP 11Y
SP 12			GRND. WIRE	SP 11G
				GRND. BUS
				SP 12R
				SP 12Y
				SP 12G
				GRND. BUS

KEY FOR WIRE COLOR CODE

14/ 19C - I - R/B



COLOR: R-RED, O-ORANGE, G-GREEN, BL-BLUE, W-WHITE, B-BLACK

LEGEND

G = CIRCULAR GREEN Y = CIRCULAR YELLOW R = CIRCULAR RED
← = LEFT GREEN ARROW ← = LEFT YELLOW ARROW ← = LEFT RED ARROW
→ = RIGHT GREEN ARROW → = RIGHT YELLOW ARROW → = RIGHT RED ARROW
↑ = VERTICAL GREEN ARROW

SIGNAL OPERATION SPECIFICATIONS
TABLE OF INPUT WIRING

SIGNAL NO. NYS Rt. 303 & ORANGEBURG RD. COUNTY ROCKLAND			
FUNCTION	DETECTOR NUMBER	TYPE	TERMINAL BOARD WIRING
			1A , 1B
ø2	D2	NB LEFT TURN LOOP	2A , 2B
ø3	D3	EB LOOP	3A , 3B
ø4	D4	WB LOOP	4A , 4B
ø4	D14	WB RIGHT TURN LOOP	5A , 5B
			6A , 6B
			7A , 7B
			8A , 8B
			9A , 9B
			10A , 10B
			11A , 11B
			12A , 12B
OVL A ø2	D13	EB RIGHT TURN LOOP	13A , 13B
			14A , 14B
			15A , 15B
			16A , 16B

POLE DATA TABLE

NYS Rt. 303 & ORANGEBURG ROAD

POLE LOCATION	NW	SE
ITEM	EXISTING	EXISTING
LENGTH	30 FT	30 FT
DESIGN LOAD	7000 LBS	7000 LBS
MAX. FOOTING MOMENT	199.5 FT-K	199.5 FT-K

MICROCOMPUTER SIGNAL OPERATION SPECIFICATION

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

DRAWING No.	SCALE	DATE	REGION
M08-056	NO SCALE	07-28-09	08

LIST OF ITEMS

ITEM No.	DESCRIPTION	UNIT
203.03 M	Conduit Excavation and Backfill including Surface Restoration	LF
647.13 M	Ground Mounted Sign	EA
635.0203 M	Cleaning and Preparation of Pavement Surface Letters	EA
680.51 M	Reinforced Concrete Pullbox	EA
680.520106 M	Conduit - 2 NPS Steel	M
680.520108 M	Conduit - 3 NPS Steel	M
680.520203 M	Conduit - 1 NPS Flexible Liquid Tight Steel	M
680.54 M	Inductance Loop Installation	M
680.71 M	Shielded Lead-in Cable	M
680.72 M	Inductance Loop Wire	M
680.730514 M	5 Conductor Signal Cable 14 AWG	M
10680.77 M	Modify Traffic Signal Equipment	LS
08680.79 M	Remove Traffic Signal Equipment	EA
680.8103 M	Traffic Signal Section 200 mm	EA
680.810301 M	Traffic Signal Module 200 mm LED Red Ball	EA
680.810303 M	Traffic Signal Module 200 mm LED Yellow Ball	EA
680.810305 M	Traffic Signal Module 200 mm LED Green Ball	EA
680.8111 M	Traffic Signal Bracket Assembly 1 Way	EA
687.0101 M	White Thermoplastic ReflectORIZED Pavement Stripes	M
687.0201 M	Yellow Thermoplastic ReflectORIZED Pavement Stripes	M
687.0301 M	White Thermoplastic ReflectORIZED Pavement Letters	EA
687.0401 M	White Thermoplastic ReflectORIZED Pavement Symbols	EA
---	ENCOM 5270 SPREAD SPECTRUM RADIOS	(2) EA
---	SEE NOTE B11	

SPACING DIAGRAM

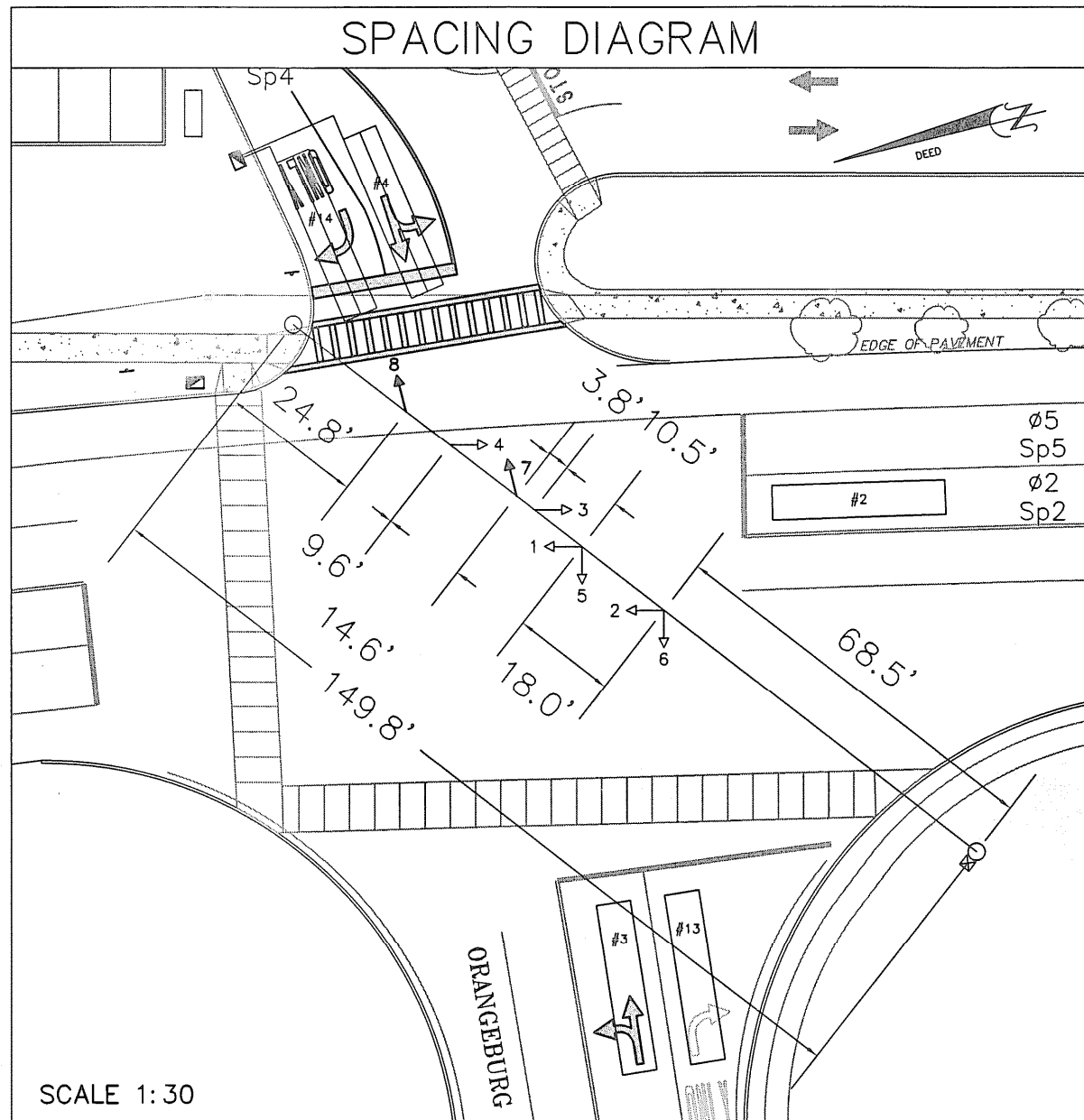
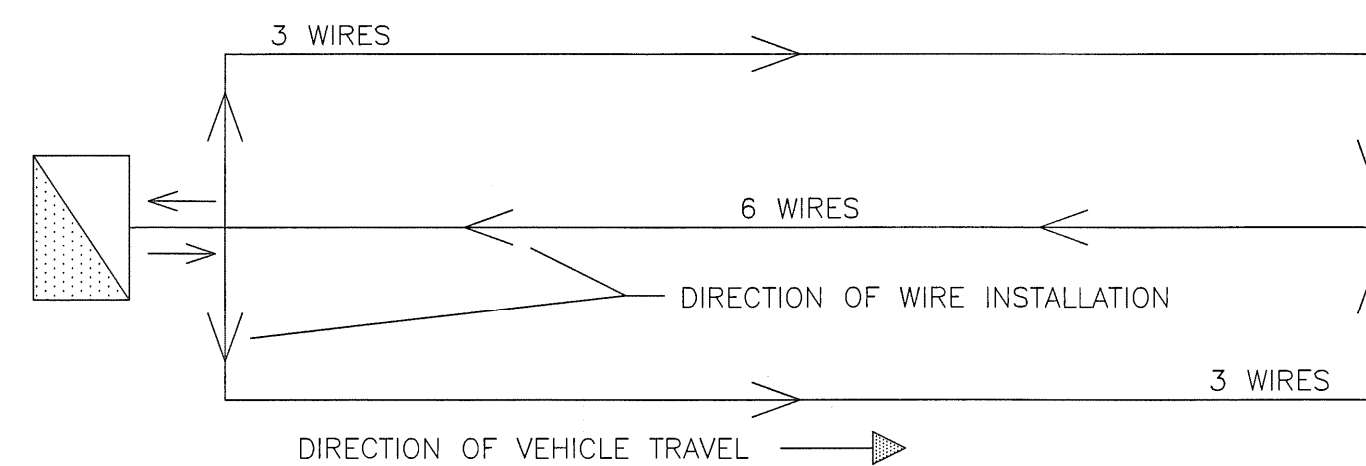
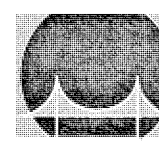
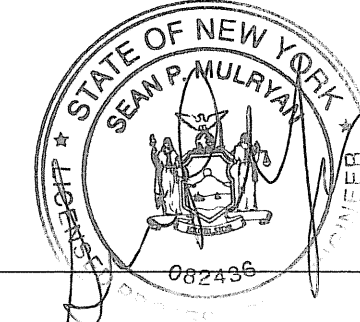
QUADRAPOLE PRESENCE LOOP INSTALLATION
NYS Rt. 303 & ORANGEBURG ROAD

TABLE OF DETECTORS

Detector No.	Type	Mode	Size	No. of Turns
4, 14	Quad	Presence	6'x30'	3-6-3

JOSEPH STAIGAR
ENGINEERING, LLC
17 Tremont Drive East Hanover, New Jersey 07936
(973) 585-7102 Fax (973) 428-4496MULRYAN
ENGINEERING, P.C.
1225 FRANKLIN AVENUE, SUITE 325 • GARDEN CITY, NEW YORK 11530
TEL: (516) 616-0083 • FAX: (516) 616-0086 • WWW.MULRYANENG.COM

No.	REVISION	DATE
4	07-15-10 COMMENTS FROM NYSDOT	08-04-10
3	06-07-10 COMMENTS FROM NYSDOT	06-15-10
2	05-06-10 COMMENTS FROM NYSDOT	05-13-10
1	06-03-09 COMMENTS FROM NYSDOT	07-28-09

TRAFFIC SIGNAL MODIFICATION PLAN
NYS Rt. 303 AT ORANGEBURG ROAD
ORANGEBURG, TOWN OF ORANGETOWN
ROCKLAND COUNTY, NEW YORK

PROJECT No. M08-056 JSE No. 00000

SCALE: NTS DATE: 02-25-09 SHEET No. 3 OF 3

8

7

6

5

4

3

2

1

[illegible]

Concurrency [1.1.4]

Phs	Concurrent Phases							
1	5	6	0	0	0	0	0	0
2	5	6	0	0	0	0	0	0
3	7	8	0	0	0	0	0	0
4	7	8	0	0	0	0	0	0
5	1	2	0	0	0	0	0	0
6	1	2	0	0	0	0	0	0
7	3	4	0	0	0	0	0	0
8	3	4	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0

Sequence [1.2.4]

Seq	Rng	Concurrent Phases								Seq	Rng	Concurrent Phases							
1	1	1	2	3	4	0	0	0	0	9	1	1	2	4	3	0	0	0	0
1	2	5	6	7	8	0	0	0	0	9	2	5	6	7	8	0	0	0	0
1	3	0	0	0	0	0	0	0	0	9	3	0	0	0	0	0	0	0	0
1	4	0	0	0	0	0	0	0	0	9	4	0	0	0	0	0	0	0	0
2	1	1	2	3	4	0	0	0	0	10	1	1	2	4	3	0	0	0	0
2	2	6	5	7	8	0	0	0	0	10	2	6	5	7	8	0	0	0	0
2	3	0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	0	0	0
2	4	0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	0	0	0
3	1	2	1	3	4	0	0	0	0	11	1	2	1	4	3	0	0	0	0
3	2	5	6	7	8	0	0	0	0	11	2	5	6	7	8	0	0	0	0
3	3	0	0	0	0	0	0	0	0	11	3	0	0	0	0	0	0	0	0
3	4	0	0	0	0	0	0	0	0	11	4	0	0	0	0	0	0	0	0
4	1	2	1	3	4	0	0	0	0	12	1	2	1	4	3	0	0	0	0
4	2	6	5	7	8	0	0	0	0	12	2	6	5	7	8	0	0	0	0
4	3	0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	0	0	0
4	4	0	0	0	0	0	0	0	0	12	4	0	0	0	0	0	0	0	0
5	1	1	2	3	4	0	0	0	0	13	1	1	2	4	3	0	0	0	0
5	2	5	6	8	7	0	0	0	0	13	2	5	6	8	7	0	0	0	0
5	3	0	0	0	0	0	0	0	0	13	3	0	0	0	0	0	0	0	0
5	4	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	0	0	0
6	1	1	2	3	4	0	0	0	0	14	1	1	2	4	3	0	0	0	0
6	2	6	5	8	7	0	0	0	0	14	2	6	5	8	7	0	0	0	0
6	3	0	0	0	0	0	0	0	0	14	3	0	0	0	0	0	0	0	0
6	4	0	0	0	0	0	0	0	0	14	4	0	0	0	0	0	0	0	0
7	1	2	1	3	4	0	0	0	0	15	1	2	1	4	3	0	0	0	0
7	2	5	6	8	7	0	0	0	0	15	2	5	6	8	7	0	0	0	0
7	3	0	0	0	0	0	0	0	0	15	3	0	0	0	0	0	0	0	0
7	4	0	0	0	0	0	0	0	0	15	4	0	0	0	0	0	0	0	0
8	1	2	1	3	4	0	0	0	0	16	1	2	1	4	3	0	0	0	0
8	2	6	5	8	7	0	0	0	0	16	2	6	5	8	7	0	0	0	0
8	3	0	0	0	0	0	0	0	0	16	3	0	0	0	0	0	0	0	0
8	4	0	0	0	0	0	0	0	0	16	4	0	0	0	0	0	0	0	0

Coord Transition, CoorPhs [2.5]

Page 2

Veh Par 1-64 [5.1]										Veh Par 1-64 [5.1]										Vehicle Options 1-64 [5.2]										Vehicle Options 1-64 [5.2]										Parameters+ 1-64 [5.3]							
Det #	Call Ø	Swi Ø	Delay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time	Det #	Call Ø	Swi Ø	Delay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time	Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol	Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol	Det #	oc G	oc Y	oc R	Delay 1	Delay 2	Type	Src		
1							45	50		33							45	50		1	1	1							33	1	1								1						NORM		
2	2		8				45	50	10	34							45	50		2	1	1							34	1	1								2						NORM		
3	3						45	50	20	35							45	50		3	1	1							35	1	1								3						NORM		
4	4						45	50	10	36							45	50		4	1	1							36	1	1								4						NORM		
5							45	50		37							45	50		5	1	1							37	1	1								5						NORM		
6							45	50		38							45	50		6	1	1							38	1	1								6						NORM		
7							45	50		39							45	50		7	1	1							39	1	1								7						NORM		
8							45	50		40							45	50		8	1	1							40	1	1								8						NORM		
9							45	50		41							45	50		9	1	1							41	1	1								9						NORM		
10							45	50		42							45	50		10	1	1							42	1	1								10						NORM		
11							45	50		43							45	50		11	1	1							43	1	1								11						NORM		
12							45	50		44							45	50		12	1	1							44	1	1								12						NORM		
13	3		5				45	50	20	45							45	50		13	1	1							45	1	1								13						NORM		
14	4		5				45	50	10	46							45	50		14	1	1							46	1	1								14						NORM		
15							45	50		47							45	50		15	1	1							47	1	1								15						NORM		
16							45	50		48							45	50		16	1	1							48	1	1								16						NORM		
17							45	50		49							45	50		17	1	1							49	1	1								17						NORM		
18							45	50		50							45	50		18	1	1							50	1	1								18						NORM		
19							45	50		51							45	50		19	1	1							51	1	1								19						NORM		
20							45	50		52							45	50		20	1	1							52	1	1								20						NORM		
21							45	50		53							45	50		21	1	1							53	1	1								21						NORM		
22							45	50		54							45	50		22	1	1							54	1	1								22						NORM		
23							45	50		55							45	50		23	1	1							55	1	1								23						NORM		
24							45	50		56							45	50		24	1	1							56	1	1								24						NORM		
25							45	50		57							45	50		25	1	1							57	1	1								25						NORM		
26							45	50		58							45	50		26	1	1							58	1	1								26						NORM		
27							45	50		59							45	50		27	1	1							59	1	1								27						NORM		
28							45	50		60							45	50		28	1	1							60	1	1								28						NORM		
29							45	50		61							45	50		29	1	1							61	1	1								29						NORM		
30							45	50		62							45	50		30	1	1							62	1	1								30						NORM		
31							45	50		63							45	50		31	1	1							63	1	1								31						NORM		
32							45	50		64							45	50		32	1	1							64	1	1								32						NORM		

Parameters+ 1-64 [5.3]

Det #	occ Grm	occ Yell	occ Red	Delay 1	Delay 2	Type	Src	Det #	occ Grm	occ Yell	occ Red	Delay 1	Delay 2	Type	Src	Det #	occ Grm	occ Yell	occ Red	Delay 1	Delay 2	Type	Src	
33						NORM		44						NORM		55							NORM	
34						NORM		45						NORM		56							NORM	
35						NORM		46						NORM		57							NORM	
36						NORM		47						NORM		58							NORM	
37						NORM		48						NORM		59							NORM	
38						NORM		49						NORM		60							NORM	
39						NORM		50						NORM		61							NORM	
40						NORM		51						NORM		62							NORM	
41						NORM		52						NORM		63							NORM	
42						NORM		53						NORM		64							NORM	
43						NORM		54						NORM										

Ped Det Parm [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	1	0	15	0
2	4	0	15	0
3		0	15	0
4		0	15	0
5		0	15	0
6		0	15	0
7		0	15	0
8		0	15	0

Unit Paramters [1.2.1]

TS2 Det Faults	ON
Vol/Occ Report Parm [1.5.8]	
Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

RTE 303 @ ORANGEBURGH RD (ID 5102) (Standard File)

8/1/2013Page 3

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	DWELL		
2	ON	RAIL	DWELL		
3	ON	EMERG	DWELL		
4	ON	EMERG	DWELL		
5	ON	EMERG	DWELL		
6	ON	EMERG	DWELL		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip	
1			OFF	
2			OFF	
3			OFF	
4			OFF	
5			OFF	
6			OFF	

Pre #	Type	Min	Max		
7	OFF	0	0		
8	OFF	0	0		
9	OFF	0	0		
10	OFF	0	0		

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	0
Max Seek Dwell Time	0

D Conn Mappings	NONE
Pre Invert Rail Input	

enterYellowChange			
enterRedClr		trackRedClr	
trackYellowClr		AllRedB4Dwell	

[illegible][illegible]

Exit Phases [3.2]				Pre # Lock				Override Auto Flsh				Override Higher				Fish Dwel				Lin			
Pre #		Exit Phase		Pre #		Lock		Override Auto Flsh		Override Higher		Fish Dwel		Lin									
1				1	ON			ON			ON		OFF										
2				2	ON			ON			ON		ON										
3				3	ON			ON			ON		OFF										
4				4	ON			ON			ON		OFF										
5				5	ON			ON			ON		OFF										
6				6	ON			ON			ON		OFF										

[illegible]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Column#.....->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	1	1	1	1	1	1	1	1
Soft Recall								
Dual Entry								
Enabl SimGap	1	1	1	1	1	1	1	1
Gaur Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Annual Schedule [4.3] Month of Year												Day of Week							Date																														Day Plan	Link To		
1	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
2	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
3	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
4	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
5	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
6	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
7	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
8	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
9	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
10	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
11	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
12	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
13	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
14	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
15	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
16	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
17	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
18	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
19	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
20	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
21	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
22	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
23	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	
24	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	

Day Plans [4.4]

[illegible]

C1-USER IO Map [1.8.9.1 In]

I1-1	189	Unused
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	13	Veh Call 13
I2-6	14	Veh Call 14
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	129	Ped Call 1
I3-6	130	Ped Call 2
I3-7	189	Unused
I3-8	189	Unused
I4-1		
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C11S Connector

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used
C11S-USER IO Map [1.8.9.1 In]		
I4-1	189	Unused
I4-2	189	Unused
I4-3	189	Unused
I4-4	189	Unused
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused
C11S-USER IO Map [1.8.9.2 Out]		
O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Result	Fcn	Oper	Fcn	Oper	Fcn	Timer
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0
I 0 =	I	0	---	I	0	DLY 0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	NONE
4	NONE
5	NONE
6	NONE
7	NONE
8	NONE
9	NONE
10	NONE
11	NONE
12	NONE
13	NONE
14	NONE
15	NONE
16	NONE
17	NONE
18	NONE
19	NONE
20	NONE
21	NONE

22	NONE
23	NONE
24	NONE
25	NONE
26	NONE
27	NONE
28	NONE
29	NONE
30	NONE
31	NONE
32	NONE
33	NONE
34	NONE
35	NONE
36	NONE
37	NONE
38	NONE
39	NONE
40	NONE
41	NONE
42	NONE

43	NONE
44	NONE
45	NONE
46	NONE
47	NONE
48	NONE
49	NONE
50	NONE
51	NONE
52	NONE
53	NONE
54	NONE
55	NONE
56	NONE
57	NONE
58	NONE
59	NONE
60	NONE
61	NONE
62	NONE
63	NONE
64	NONE

Com Parameters [6.1]

Station ID	5102
Group ID	
Master ID	0
Backup Time	900
SysUp Modem [6.1]	
Enable Modem	OFF
Idle Time	15
Dial Time	5
Tel:	0,0-000-000-0000
Alt:	0,0-000-000-0000

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	
SP6	1200	
SP7	1200	
SP8	1200	

2070 IP 1 Addressing [6.5]

Addressing			
Addr			
Mask			
Brdcst			
GtWay			
Port			

2070 IP 2 Addressing [6.5]

Addressing			
Addr			
Mask			
Brdcst			
GtWay			
Port			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYN1	SP1	NONE	
ASYN2	SP2	NONE	
ASYN3	SP3	NONE	
ASYN4	SP4	NONE	
SYN1	SP5S		
SYN2	OFF		

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	NONE	SYSUp	ASYN1
CMU/MMU	NONE	SYSDown	ASYN1
Opticom	NONE	Shell	NONE
Loop Det.	NONE		
GPS	NONE		

####

#	Event / Alarm	Ev	Alr	Call Phases[1.1.5]	Redirect Phases[1.1.5]	Inhibit Phases[1.1.5]									
1	Power Up Alarm.	1	1	Ø Phases Called By Ø	From To From To From To From To	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15									
2	Stop Timing	1	1	1	1	1									
3	TS1 Cabinet Door			2	2	2									
4	Coordination Failure	1	1	3	3	3									
5	External Alarm # 1	1	1	4	4	4									
6	External Alarm # 2	1	1	5	5	5									
7	External Alarm # 3			6	6	6									
8	External Alarm # 4			7	7	7									
9	Closed Loop Disabled	1		8	8	8									
10	External Alarm # 5			9	9	9									
11	External Alarm # 6			10	10	10									
12	Manual Control Enable	1	1	11	11	11									
13	Coord Free Input			12	12	12									
14	Local Flash Input	1	1	13	13	13									
15	MMU Flash			14	14	14									
16	CMU Flash			15	15	15									
17	Cycle Fault	1		16	16	16									
18	Cycle Failure	1		Alt Call & Redirect # 1 [1.1.6.3]				Alt Inhibit Phases # 1 [1.1.6.3]							
19	Coordination Fault	1		Col Ø Phases Called By Ø	From To From To From To From To	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15									
20	Controller Fault	1	1	1	1	1									
21	Detector SDLC Failure			2	2	2									
22	MMU SDLC Failure			3	3	3									
23	Critical SDLC Failure			4	4	4									
24	Reserved			5	5	5									
25	EEPROM CRC Fault	1	1	6	6	6									
26	Detector Diagnostic Failure			7	7	7									
27	BIU Detector Failure	1	1	8	8	8									
28	Queue detector alarm	1		Alt Call & Redirect # 2 [1.1.6.3]				Alt Inhibit Phases # 2 [1.1.6.3]							
29	Ped Detector Fault	1		Col Ø Phases Called By Ø	From To From To From To From To	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15									
30	Coord Diagnostic Fault			1	1	1									
41	TempAlert Probe Ch. A			2	2	2									
42	TempAlert Probe Ch. B			3	3	3									
47	Coord Active			4	4	4									
48	Preempt Active	1		5	5	5									
49	Preempt 1 Input	1		6	6	6									
50	Preempt 2 Input	1		7	7	7									
51	Preempt 3 Input	1		8	8	8									
52	Preempt 4 Input	1		Coord, CIC Plans [2.3]				Unit Parameters [1.2.1]				Advanced Warning [1,1,9]			
53	Preempt 5 Input	1		CIC CoØ Grow 1 2 3 4 5 6 7 8	Allow Skip Yellow OFF	Max Cycle Time 0									
54	Preempt 6 Input	1		1 OFF	TOD Dim Enable OFF	Cycle Fault Action ALARM									
55	Preempt 7 Input	1		2 OFF	Tone Disable OFF										
56	Preempt 8 Input	1		3 OFF	Diamond Mode 4Ph										
57	Preempt 9 Input	1		4 OFF	Backup Time (s) 900										
58	Preempt 10 Input	1		Auto Flash Phase/Olap Settings [1.4.2]				Disable Init Ped OFF							
61	In Transition	1		Yel Ø	Cycle Fault Action ALARM										
81	FIO Status Alarm			Yel (olaps)	Enable Run Timer ON	RTE 303 @ ORANGEBURGH RD (ID 5102) (Standard Fil									

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

TAPS _____
STUDY # _____
FILE # _____
PAGE 1 OF 3

SIGNAL # R - 102COUNTY ROCKLANDDATE 10/03/12

TABLE OF SWITCH PACKS

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL WIRING BOARD		FACE	TERMINAL WIRING BOARD	
				TERMINAL	WIRE COLOR CODE		TERMINAL	WIRE COLOR CODE
1	Ø1	Red	1	SP 1 R	14 / 10C - B - R	2	SP 1 R	14 / 15C - A - R
		Yellow		SP 1 Y	- O		SP 1 Y	- O
		Green		SP 1 G	- G		SP 1 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
2	Ø2	-----	3	SP 2 R	-----		SP 2 R	
				SP 2 Y	14 / 10C - D - O/B		SP 2 Y	
				SP 2 G	- G/B		SP 2 G	
		Ground Wire		Grnd Bus	- W/B		Grnd Bus	
3	Ø3	Red	5	SP 3 R	14 / 10C - B - R/B	6	SP 3 R	14 / 15C - A - R / B
		Yellow		SP 3 Y	- O/B		SP 3 Y	- O / B
		Green		SP 3 G	- G/B		SP 3 G	- G / B
		Ground Wire		Grnd Bus	- W/B		Grnd Bus	- W / B
4	Ø4	Red	7	SP 4 R	14 / 5C - C - R	8	SP 4 R	14 / 5C - E - R
		Yellow		SP 4 Y	- O		SP 4 Y	- O
		Green		SP 4 G	- G		SP 4 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
5	Ø5	Red	3	SP 5 R	14 / 10C - D - R	4	SP 5 R	14 / 5C - F - R
		Yellow		SP 5 Y	- O		SP 5 Y	- O
		Green		SP 5 G	- G		SP 5 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
6	OVL1, Ø2+ Ø3	-----	6	SP 6 R	-----		SP 6 R	
				SP 6 Y	14 / 15C - A - R / W		SP 6 Y	
				SP 6 G	- BL		SP 6 G	
		Ground Wire		Grnd Bus	- B		Grnd Bus	
7	Ø3	-----	2	SP 7 R	-----		SP 7 R	
				SP 7 Y	14 / 15C - A - BL / W		SP 7 Y	
				SP 7 G	- G / W		SP 7 G	
		Ground Wire		Grnd Bus	- B / W		Grnd Bus	
8				SP 8 R			SP 8 R	
				SP 8 Y			SP 8 Y	
				SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9				SP 9 R			SP 9 R	
				SP 9 Y			SP 9 Y	
				SP 9 G			SP 9 G	
		Ground Wire		Grnd Bus			Grnd Bus	
10				SP 10 R			SP 10 R	
				SP 10 Y			SP 10 Y	
				SP 10 G			SP 10 G	
		Ground Wire		Grnd Bus			Grnd Bus	
11	PED 1 Ø1	HAND	21	SP 11 R	14 / 5C - 1P - R		SP 11 R	
		-----		SP 11 Y	-----		SP 11 Y	
		MAN		SP 11 G	14 / 5C - 1P - G		SP 11 G	
		Ground Wire		Grnd Bus	14 / 5C - 1P - W		Grnd Bus	
12	PED 2 Ø4	HAND	22	SP 12 R	14 / 5C - 1P - R		SP 12 R	
		-----		SP 12 Y	-----		SP 12 Y	
		MAN		SP 12 G	14 / 5C - 1P - G		SP 12 G	
		Ground Wire		Grnd Bus	14 / 5C - 1P - W		Grnd Bus	
13				SP 13 R			SP 13 R	
				SP 13 Y			SP 13 Y	
				SP 13 G			SP 13 G	
		Ground Wire		Grnd Bus			Grnd Bus	
14				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	

MODEL 179 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

TAPS _____
STUDY # _____
FILE # _____
PAGE 2 OF 3

SIGNAL # R - 102

COUNTY # ROCKLAND

DATE 11/08/12

CONFLICT / CURRENT MONITOR PROGRAMMING

[illegible]

NOTES: Red Monitor on SP1, SP3, SP4, SP5

MODEL 179 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

TAPS _____
STUDY # _____
FILE # _____
PAGE 3 OF 3

SIGNAL # R - 102 COUNTY ROCKLAND DATE 10/03/12

TABLE OF INPUT WIRING

TERM. NUMBER	FUNCTION	DET NO.	DET. TYPE	DET. AN OVER	REMARKS
1A, 1B					
2A, 2B	Ø2	2	NORMAL		PRESENCE LOOP
3A, 3B	Ø3	3	NORMAL		PRESENCE LOOP
4A, 4B	Ø4	4	QUAD		PRESENCE LOOP
5A, 5B					
6A, 6B					
7A, 7B					
8A, 8B					
9A, 9B					
10A, 10B					
11A, 11B					
12A, 12B					
13A, 13B	Ø3	13	NORMAL		PRESENCE LOOP
14A, 14B	Ø4	14	QUAD		PRESENCE LOOP
15A, 15B					
16A, 16B					
17A, 17B					
18A, 18B					
19A, 19B					
20A, 20B					
21A, 21B	PED 1, Ø1	21	BUTTON		PED DETECTOR
22A, 22B	PED 2, Ø4	22	BUTTON		PED DETECTOR
23A, 23B					
24A, 24B					
25A, 25B					
26A, 26B					
27A, 27B					
28A, 28B					

R-20

Signal #

STATE OF NEW YORK – DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATIONCounty of ROCKLAND

Study:

Contract: D262321

PIN: 8811.96

File: 39.15-303

INTERSECTION: RT 303 @ RT 340CITY VILLAGE TOWN OF: ORANGETOWNDepartment Order filed 8-15-1975 as Section: 2039.15 Subdivision: (d)Prior specification hereby superseded None Dated: November 2, 2011Purpose: TRAFFIC SIGNAL REPLACEMENT UNDER CONTRACT D262321.These specifications will be effective upon the Installation Modification / Reinstallation of the necessary traffic control device(s) required by and conforming to the Federal Manual on Uniform Traffic Control Devices.

This signal shall

- A. Operate in accordance with the table of operations and / or change intervals as shown on the attached pages as a:

Pretimed Signal

Semi-traffic actuated

Full-traffic actuated

Pedestrian actuated

- B. Display vehicular indications

Other

Display pedestrian indications

Be equipped with vehicle detectors

Be equipped with pedestrian buttons

as shown in the attached plans / drawings.

upgrade contract 4/14

- C. Be equipped with
- Pre-emption
- which are described as follows:

Interconnection and/or coordination

Description:

IN COORDINATION WITH R-102.cc: Region 8 Traffic Engineer
Signal Shop
Contract Maintainer
Main Office_____
Date_____
Installation DateNICHOLAS CHOUBAH R.T.E._____
Signature_____
Title_____
Reinstallation/Modification

Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
TRAFFIC CONTROL SPECIFICATIONS (CONTINUED)

County of ROCKLAND

Signal:

Contract:

PIN:

File:

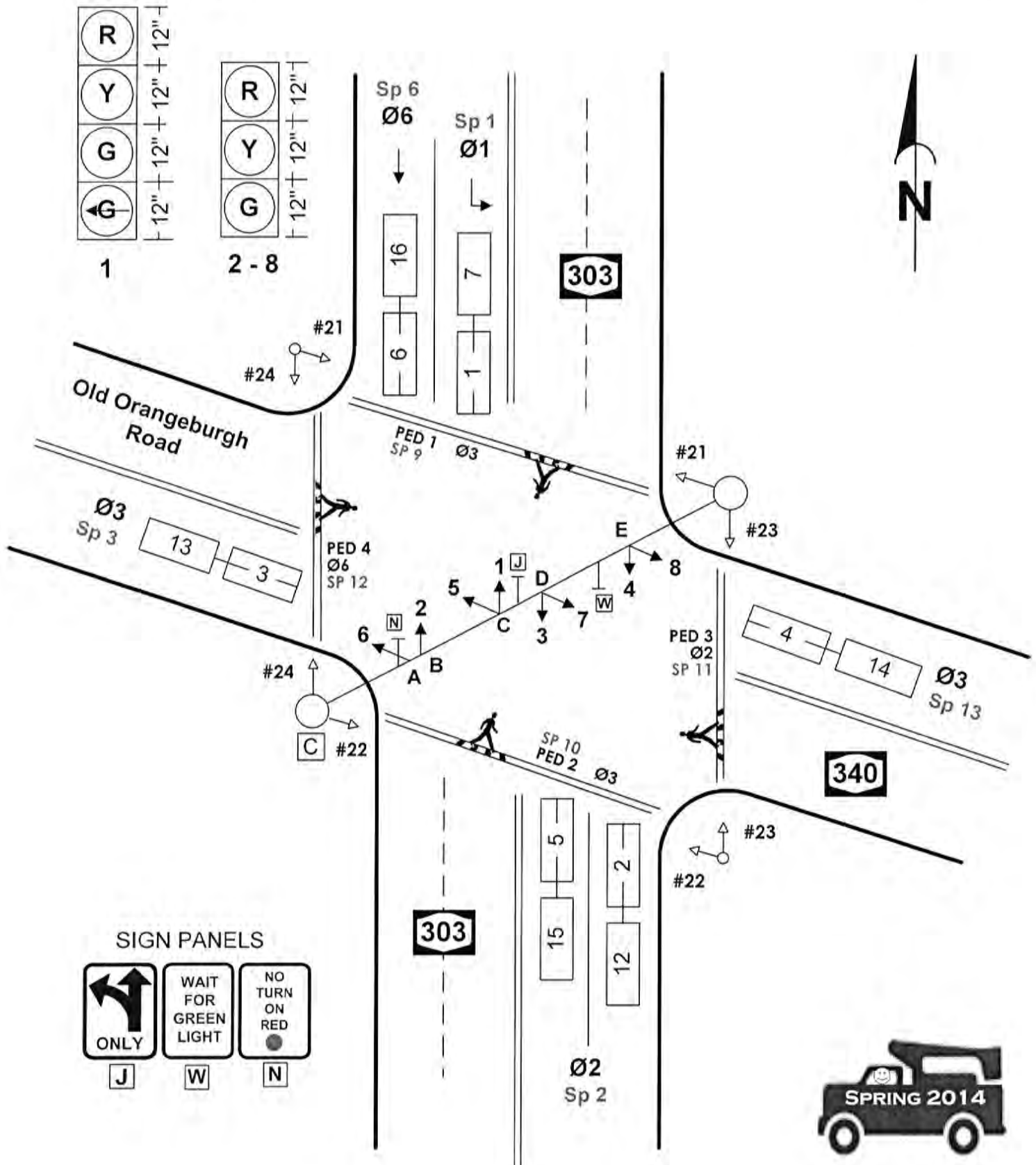
R-20

D262321

8811.96

39.15-303

FACES



Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]																							STD8									
Phase Times [1.1.1]																							Ring/Startup [1.1.4]									
Times [1.1.1]																							Phs Ring Start Enable									
	1	2	3	4	5	6	7	8	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq									
Min Green	5	5	5						1	110	0	1	1	13	0	0	13	1	25	0	0		1									
Gap, Ext	2	2	2						2	0	0	2	1	14	0	0	14	1	26	0	0		1									
Max 1	15	30	35						3	0	0	3	1	15	0	0	15	1	27	0	0		1									
Max 2									4	0	0	4	1	16	0	0	16	1	28	0	0		1									
Yel Clearance	4	4	4						5	0	0	5	1	17	0	0	17	1	29	0	0		1									
Red Clearance	1	1	1						6	0	0	6	1	18	0	0	18	1	30	0	0		1									
Walk	7	7	7						7	0	0	7	1	19	0	0	19	1	31	0	0		1									
Ped Clearance	19	23							8	0	0	8	1	20	0	0	20	1	32	0	0		1									
Red Revert									9	0	0	9	1	21	0	0	21	1	33	0	0		1									
Add Initial									10	0	0	10	1	22	0	0	22	1	34	0	0		1									
Max Initial									11	0	0	11	1	23	0	0	23	1	35	0	0		1									
Time B4 Reduct									12	0	0	12	1	24	0	0	24	1	36	0	0		1									
Cars B4 Reduct									Split	1	2	3	4	5	6	7	8	Split	1	2	3	4	5	6	7	8						
Time To Reduce									1	Coord	20	50	40	0	20	50	40	0	13	Coord	0	0	0	0	0	0						
Reduce By									2	Coord																						
Min Gap									3	Coord	0	0	0	0	0	0	0	0	14	Coord	0	0	0	0	0	0						
DynMaxLim									4	Coord	0	0	0	0	0	0	0	0	15	Coord	0	0	0	0	0	0						
Max Step									5	Coord	0	0	0	0	0	0	0	0	16	Coord	0	0	0	0	0	0						
Options [1.1.2]	1	2	3	4	5	6	7	8	6	Coord	0	0	0	0	0	0	0	0	17	Coord	0	0	0	0	0	0						
Enable	1	1	1						7	Coord	0	0	0	0	0	0	0	0	18	Coord	0	0	0	0	0	0						
Min Recall			1						8	Coord	0	0	0	0	0	0	0	0	19	Coord	0	0	0	0	0	0						
Max Recall									9	Coord	0	0	0	0	0	0	0	0	20	Coord	0	0	0	0	0	0						
Ped Recall									10	Coord	0	0	0	0	0	0	0	0	21	Coord	0	0	0	0	0	0						
Soft Recall									11	Coord	0	0	0	0	0	0	0	0	22	Coord	0	0	0	0	0	0						
Lock Calls									12	Coord	0	0	0	0	0	0	0	0	23	Coord	0	0	0	0	0	0						
Auto Flash Entry									13	Coord	0	0	0	0	0	0	0	0	24	Coord	0	0	0	0	0	0						
Auto Flash Exit									14	Coord	0	0	0	0	0	0	0	0	25	Coord	0	0	0	0	0	0						
Dual Entry	1	1	1	1					15	Coord	0	0	0	0	0	0	0	0	26	Coord	0	0	0	0	0	0						
Enable Simul Gap	1	1	1	1	1	1	1	1	16	Coord	0	0	0	0	0	0	0	0	27	Coord	0	0	0	0	0	0						
Gauranteee Passag									17	Coord	0	0	0	0	0	0	0	0	28	Coord	0	0	0	0	0	0						
Rest In Walk									18	Coord	0	0	0	0	0	0	0	0	29	Coord	0	0	0	0	0	0						
Condition Service									19	Coord	0	0	0	0	0	0	0	0	30	Coord	0	0	0	0	0	0						
Non-Actuated 1									20	Coord	0	0	0	0	0	0	0	0	31	Coord	0	0	0	0	0	0						
Non-Actuated 2									21	Coord	0	0	0	0	0	0	0	0	32	Coord	0	0	0	0	0	0						
Add Init Calc									22	Coord	0	0	0	0	0	0	0	0	33	Coord	0	0	0	0	0	0						
Options* [1.1.3]	1	2	3	4	5	6	7	8	23	Coord	0	0	0	0	0	0	0	0	34	Coord	0	0	0	0	0	0						
Reservice									24	Coord	0	0	0	0	0	0	0	0	35	Coord	0	0	0	0	0	0						
PedClr Thru Yel									25	Coord	0	0	0	0	0	0	0	0	36	Coord	0	0	0	0	0	0						
Skip Red No Call									26	Coord	0	0	0	0	0	0	0	0	37	Coord	0	0	0	0	0	0						
Red Rest									27	Coord	0	0	0	0	0	0	0	0	38	Coord	0	0	0	0	0	0						
Max II									28	Coord	0	0	0	0	0	0	0	0	39	Coord	0	0	0	0	0	0						
Conflicting Phase									29	Coord	0	0	0	0	0	0	0	0	40	Coord	0	0	0	0	0	0						
Red Rest On Gap									30	Coord	0	0	0	0	0	0	0	0	41	Coord	0	0	0	0	0	0						
Omit Yellow									31	Coord	0	0	0	0	0	0	0	0	42	Coord	0	0	0	0	0	0						
Ped Delay									32	Coord	0	0	0	0	0	0	0	0	43	Coord	0	0	0	0	0	0						
Gm/Ped Delay									33	Coord	0	0	0	0	0	0	0	0	44	Coord	0	0	0	0	0	0						
RTE 303 @ RTE 340 (ID 5020) (Standard File)																							04/02/14 Page 1A									

Concurrency [1.1.4]

Phs	Concurrent Phases															
1	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sequence [1.2.4]

Seq		Concurrent Phases																Seq		Concurrent Phases																
1	1	1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	9	1	1	2	4	3	0	0	0	0	0	0	0	0	0	0			
1	2	5	6	7	8		0	0	0	0	0	0	0	0	0	0	0	9	2	5	6	7	8	0	0	0	0	0	0	0	0	0	0			
1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
2	1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	10	1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0		
2	2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0	10	2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0		
2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	11	1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0		
3	2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0	0	11	2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0		
3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4	1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	12	1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	
4	2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0	12	2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0	
4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	13	1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0	
5	2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0	13	2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0	
5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	14	1	1	2	4	3	0	0	0	0	0	0	0	0	0	0	0	0	
6	2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0	14	2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0	
6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	15	1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	
7	2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0	15	2	5	6	8	7	0	0	0	0	0	0	0	0	0	0	0	0	
7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	1	2	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	16	1	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0
8	2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0	16	2	6	5	8	7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Overlap 1-16 Program Farms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	ON	Coord Transition, CoordPhs [2.5]	Pat#	Short	Long	Dwell	No Shortway	E-Yld	Offset	RetHid	Float	Min Veh Perm	Min Ped Perm
Included Ø				NORMAL	Included Ø				1	12	22				EndGRN				
1 Modifier Ø				Gm	9 Modifier Ø				2	12	22				EndGRN				
Conflict Ø				Yel 3.5	Conflict Ø				3	12	22				EndGRN				
Conflict Olap				Red 1.5	Conflict Olap				4	12	22				EndGRN				
Conflict Ped				LG	Conflict Ped				5	12	22				EndGRN				
Included Ø				NORMAL	Included Ø				6	12	22				EndGRN				
2 Modifier Ø				Gm	10 Modifier Ø				7	12	22				EndGRN				
Conflict Ø				Yel 3.5	Conflict Ø				8	12	22				EndGRN				
Conflict Olap				Red 1.5	Conflict Olap				9	12	22				EndGRN				
Conflict Ped				LG	Conflict Ped				10	12	22				EndGRN				
Included Ø				NORMAL	Included Ø				11	12	22				EndGRN				
3 Modifier Ø				Gm	11 Modifier Ø				12	12	22				EndGRN				
Conflict Ø				Yel 3.5	Conflict Ø				13	12	22				EndGRN				
Conflict Olap				Red 1.5	Conflict Olap				14	12	22				EndGRN				
Conflict Ped				LG	Conflict Ped				15	12	22				EndGRN				
Included Ø				NORMAL	Included Ø				16	12	22				EndGRN				
4 Modifier Ø				Gm	12 Modifier Ø				17	12	22				EndGRN				
Conflict Ø				Yel 3.5	Conflict Ø				18	12	22				EndGRN				
Conflict Olap				Red 1.5	Conflict Olap				19	12	22				EndGRN				
Conflict Ped				LG	Conflict Ped				20	12	22				EndGRN				
Included Ø				NORMAL	Included Ø				21	12	22				EndGRN				
5 Modifier Ø				Gm	13 Modifier Ø				22	12	22				EndGRN				
Conflict Ø				Yel 3.5	Conflict Ø				23	12	22				EndGRN				
Conflict Olap				Red 1.5	Conflict Olap				24	12	22				EndGRN				
Conflict Ped				LG	Conflict Ped				25	0	0				BegGRN				
Included Ø				NORMAL	Included Ø				26	0	0				BegGRN				
6 Modifier Ø				Gm	14 Modifier Ø				27	0	0				BegGRN				
Conflict Ø				Yel 3.5	Conflict Ø				28	0	0				BegGRN				
Conflict Olap				Red 1.5	Conflict Olap				29	0	0				BegGRN				
Conflict Ped				LG	Conflict Ped				30	0	0				BegGRN				
Included Ø				NORMAL	Included Ø				31	0	0				BegGRN				
7 Modifier Ø				Gm	15 Modifier Ø				32	0	0				BegGRN				
Conflict Ø				Yel 3.5	Conflict Ø				33	0	0				BegGRN				
Conflict Olap				Red 1.5	Conflict Olap				34	0	0				BegGRN				
Conflict Ped				LG	Conflict Ped				35	0	0				BegGRN				
Included Ø				NORMAL	Included Ø				36	0	0				BegGRN				
8 Modifier Ø				Gm	16 Modifier Ø				37	0	0				BegGRN				
Conflict Ø				Yel 3.5	Conflict Ø				38	0	0				BegGRN				
Conflict Olap				Red 1.5	Conflict Olap				39	0	0				BegGRN				
Conflict Ped				LG	Conflict Ped				40	0	0				BegGRN				
Included Ø				NORMAL	Included Ø				41	0	0				BegGRN				
9 Modifier Ø				Gm	17 Modifier Ø				42	0	0				BegGRN				
Conflict Ø				Yel 3.5	Conflict Ø				43	0	0				BegGRN				
Conflict Olap				Red 1.5	Conflict Olap				44	0	0				BegGRN				
Conflict Ped				LG	Conflict Ped				45	0	0				BegGRN				
Included Ø				NORMAL	Included Ø				46	0	0				BegGRN				
10 Modifier Ø				Gm	18 Modifier Ø				47	0	0				BegGRN				
Conflict Ø				Yel 3.5	Conflict Ø				48	0	0				BegGRN				
Conflict Olap				Red 1.5	Conflict Olap														
Conflict Ped				LG	Conflict Ped														

Channel Settings [1.8.1]

Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	YEL	RED	RED	RED	YEL	RED	RED	DRK	DRK	DRK	DRK	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt HZ																								

Channel+ Settings [1.8.4]

Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								

[illegible]

Preemption Times [3.1], Options+ [3.6]										Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]										Alt# 1 Times Table [1.1.6.1]									
Pre #	Enable	Type	Output	Delay	MinDura	Pre #	Track Phases	Track Overlaps						Column#	->	1	2	3	4	5	6	7	8						
1	ON	RAIL	DWELL			1																							
2	ON	RAIL	DWELL			2																							
3	ON	EMERG	DWELL			3																							
4	ON	EMERG	DWELL			4																							
5	ON	EMERG	DWELL			5																							
6	ON	EMERG	DWELL			6																							
Pre #	MaxPres	MinGm	MinWlk	PedClr	Co+Pre																								
1					ON																								
2					ON																								
3					ON																								
4					ON																								
5					ON																								
6					ON																								
Pre #	Track Grf	Min Dwell	Ext Dwell	PedClr	Yel																								
1	2																												
2	2																												
3	2																												
4	2																												
5	2																												
6	2																												
Pre #	Red	Pattern	Skip																										
1			OFF																										
2			OFF																										
3			OFF																										
4			OFF																										
5			OFF																										
6			OFF																										
Low Priority Preempts																													
Pre #	Type	Min	Max																										
7	OFF	0	0																										
8	OFF	0	0																										
9	OFF	0	0																										
10	OFF	0	0																										
Unit Parameters [1.2.1]																													
Stop Timer Over Preempt				OFF																									
Preempt or Ext Output				PRE																									
Max Seek Track Time				0																									
Max Seek Dwell Time				0																									
Channel Parameters [1.8.3]																													
D Conn Mappings				NONE																									
Pre Invert Rail Input																													
Adv Timers [3.8]																													
enterYellowChange																													
enterRedClr																													
trackYellowClr																													
trackRedClr																													
AllRedB4Dwell																													
Preemption 1, Options+ [3.6]										Exit Phases [3.2]										Preemption 1, Options+ [3.6]									
Pre # Lock										Pre # Lock										Pre # Lock									
Override Auto Fish										Override Auto Fish										Override Auto Fish									
Override Higher										Override Higher										Override Higher									
Fish Dwell Link										Fish Dwell Link										Fish Dwell Link									
1										1										1									
2										2										2									
3										3										3									
4										4										4									
5										5										5									
6										6										6									
Init' Dwell [3.9]										Init' Dwell [3.9]										Init' Dwell [3.9]									
Phases										Phases										Phases									
Peds										Peds										Peds									
Overlap										Overlap										Overlap									
Alt# 2 Times Table [1.1.6.1]																													
Column#->																													
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
Alt# 3 Times Table [1.1.6.1]																													
Column#->																													
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
Alt# 1 Options Table [1.1.6.2]																													
Column # ->																													
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
Assign Ø																													
Lock Calls																													
Soft Recall																													
Dual Entry																													
Enabl SimGap																													
Gaur Passage																													
Rest In Walk																													
Cond Service																													
Reservice																													
Non-Act 1																													
Red Rest																													
Max2																													
Ped Delay																													
Conflicting Ø1																													

Annual Schedule [4.3] Month of Year													Day	Link
Date													Plan	To
Day of Week														
S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	J	F	M	A	M	J	J	A	S	O	N	D		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	J	F	M	A	M	J	J	A	S	O	N	D		
2	1	2	3	4	5	6	7	8	9	10	11	12	13	14
3	J	F	M	A	M	J	J	A	S	O	N	D		
3	1	2	3	4	5	6	7	8	9	10	11	12	13	14
4	J	F	M	A	M	J	J	A	S	O	N	D		
4	1	2	3	4	5	6	7	8	9	10	11	12	13	14
5	J	F	M	A	M	J	J	A	S	O	N	D		
5	1	2	3	4	5	6	7	8	9	10	11	12	13	14
6	J	F	M	A	M	J	J	A	S	O	N	D		
6	1	2	3	4	5	6	7	8	9	10	11	12	13	14
7	J	F	M	A	M	J	J	A	S	O	N	D		
7	1	2	3	4	5	6	7	8	9	10	11	12	13	14
8	J	F	M	A	M	J	J	A	S	O	N	D		
8	1	2	3	4	5	6	7	8	9	10	11	12	13	14
9	J	F	M	A	M	J	J	A	S	O	N	D		
9	1	2	3	4	5	6	7	8	9	10	11	12	13	14
10	J	F	M	A	M	J	J	A	S	O	N	D		
10	1	2	3	4	5	6	7	8	9	10	11	12	13	14
11	J	F	M	A	M	J	J	A	S	O	N	D		
11	1	2	3	4	5	6	7	8	9	10	11	12	13	14
12	J	F	M	A	M	J	J	A	S	O	N	D		
12	1	2	3	4	5	6	7	8	9	10	11	12	13	14
13	J	F	M	A	M	J	J	A	S	O	N	D		
13	1	2	3	4	5	6	7	8	9	10	11	12	13	14
14	J	F	M	A	M	J	J	A	S	O	N	D		
14	1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	J	F	M	A	M	J	J	A	S	O	N	D		
15	1	2	3	4	5	6	7	8	9	10	11	12	13	14
16	J	F	M	A	M	J	J	A	S	O	N	D		
16	1	2	3	4	5	6	7	8	9	10	11	12	13	14
17	J	F	M	A	M	J	J	A	S	O	N	D		
17	1	2	3	4	5	6	7	8	9	10	11	12	13	14
18	J	F	M	A	M	J	J	A	S	O	N	D		
18	1	2	3	4	5	6	7	8	9	10	11	12	13	14
19	J	F	M	A	M	J	J	A	S	O	N	D		
19	1	2	3	4	5	6	7	8	9	10	11	12	13	14
20	J	F	M	A	M	J	J	A	S	O	N	D		
20	1	2	3	4	5	6	7	8	9	10	11	12	13	14
21	J	F	M	A	M	J	J	A	S	O	N	D		
21	1	2	3	4	5	6	7	8	9	10	11	12	13	14
22	J	F	M	A	M	J	J	A	S	O	N	D		
22	1	2	3	4	5	6	7	8	9	10	11	12	13	14
23	J	F	M	A	M	J	J	A	S	O	N	D		
23	1	2	3	4	5	6	7	8	9	10	11	12	13	14
24	J	F	M	A	M	J	J	A	S	O	N	D		
24	1	2	3	4	5	6	7	8	9	10	11	12	13	14

[illegible]

C1-USER IO Map [1.8.9.2 Out]	
O1-1	1 Ch1 Red
O1-2	49 Ch1 Green
O1-3	2 Ch2 Red
O1-4	26 Ch2 Yellow
O1-5	50 Ch2 Green
O1-6	3 Ch3 Red
O1-7	27 Ch3 Yellow
O1-8	51 Ch3 Green
O2-1	4 Ch4 Red
O2-2	52 Ch4 Green
O2-3	5 Ch5 Red
O2-4	29 Ch5 Yellow
O2-5	53 Ch5 Green
O2-6	6 Ch6 Red
O2-7	30 Ch6 Yellow
O2-8	54 Ch6 Green
O3-1	7 Ch7 Red
O3-2	55 Ch7 Green
O3-3	8 Ch8 Red
O3-4	32 Ch8 Yellow
O3-5	56 Ch8 Green
O3-6	9 Ch9 Red
O3-7	33 Ch9 Yellow
O3-8	57 Ch9 Green
O4-1	10 Ch10 Red
O4-2	58 Ch10 Green
O4-3	11 Ch11 Red
O4-4	35 Ch11 Yellow
O4-5	59 Ch11 Green
O4-6	12 Ch12 Red
O4-7	36 Ch12 Yellow
O4-8	60 Ch12 Green
O5-1	28 Ch4 Yellow
O5-2	34 Ch10 Yellow
O5-3	25 Ch1 Yellow
O5-4	31 Ch7 Yellow
O5-5	115 Not Used
O5-6	115 Not Used
O5-7	115 Not Used
O5-8	114 Watchdog
O6-1	115 Not Used
O6-2	115 Not Used
O6-3	13 Ch13 Red
O6-4	37 Ch13 Yellow
O6-5	61 Ch13 Green
O6-6	14 Ch14 Red
O6-7	38 Ch14 Yellow
O6-8	62 Ch14 Green
C1-USER IO Map [1.8.9.1 In]	
I1-1	1 Veh Call 1
I1-2	2 Veh Call 2
I1-3	3 Veh Call 3
I1-4	4 Veh Call 4
I1-5	5 Veh Call 5
I1-6	6 Veh Call 6
I1-7	7 Veh Call 7
I1-8	189 Unused
I2-1	189 Unused
I2-2	189 Unused
I2-3	189 Unused
I2-4	12 Veh Call 12
I2-5	13 Veh Call 13
I2-6	14 Veh Call 14
I2-7	15 Veh Call 15
I2-8	16 Veh Call 16
I3-1	189 Unused
I3-2	189 Unused
I3-3	189 Unused
I3-4	189 Unused
I3-5	129 Ped Call 1
I3-6	130 Ped Call 2
I3-7	131 Ped Call 3
I3-8	132 Ped Call 4
I4-1	
I4-2	
I4-3	
I4-4	
I4-5	189 Unused
I4-6	189 Unused
I4-7	229 33xCMUStop
I4-8	228 33xFlashSns
I5-1	189 Unused
I5-2	189 Unused
I5-3	189 Unused
I5-4	189 Unused
I5-5	189 Unused
I5-6	189 Unused
I5-7	189 Unused
I5-8	189 Unused
I6-1	189 Unused
I6-2	189 Unused
I6-3	189 Unused
I6-4	189 Unused
I6-5	189 Unused
I6-6	189 Unused
I6-7	189 Unused
I6-8	189 Unused
C1-USER IO Map [1.8.9.2 Out]	
O1-1	1 Ch1 Red
O1-2	49 Ch1 Green
O1-3	2 Ch2 Red
O1-4	26 Ch2 Yellow
O1-5	50 Ch2 Green
O1-6	3 Ch3 Red
O1-7	27 Ch3 Yellow
O1-8	51 Ch3 Green
O2-1	4 Ch4 Red
O2-2	52 Ch4 Green
O2-3	5 Ch5 Red
O2-4	29 Ch5 Yellow
O2-5	53 Ch5 Green
O2-6	6 Ch6 Red
O2-7	30 Ch6 Yellow
O2-8	54 Ch6 Green
O3-1	7 Ch7 Red
O3-2	55 Ch7 Green
O3-3	8 Ch8 Red
O3-4	32 Ch8 Yellow
O3-5	56 Ch8 Green
O3-6	9 Ch9 Red
O3-7	33 Ch9 Yellow
O3-8	57 Ch9 Green
O4-1	10 Ch10 Red
O4-2	58 Ch10 Green
O4-3	11 Ch11 Red
O4-4	35 Ch11 Yellow
O4-5	59 Ch11 Green
O4-6	12 Ch12 Red
O4-7	36 Ch12 Yellow
O4-8	60 Ch12 Green
O5-1	28 Ch4 Yellow
O5-2	34 Ch10 Yellow
O5-3	25 Ch1 Yellow
O5-4	31 Ch7 Yellow
O5-5	115 Not Used
O5-6	115 Not Used
O5-7	115 Not Used
O5-8	114 Watchdog
O6-1	115 Not Used
O6-2	115 Not Used
O6-3	13 Ch13 Red
O6-4	37 Ch13 Yellow
O6-5	61 Ch13 Green
O6-6	14 Ch14 Red
O6-7	38 Ch14 Yellow
O6-8	62 Ch14 Green
C1-USER IO Map [1.8.9.1 In]	
I1-1	1 Veh Call 1
I1-2	2 Veh Call 2
I1-3	3 Veh Call 3
I1-4	4 Veh Call 4
I1-5	5 Veh Call 5
I1-6	6 Veh Call 6
I1-7	7 Veh Call 7
I1-8	189 Unused
I2-1	189 Unused
I2-2	189 Unused
I2-3	189 Unused
I2-4	12 Veh Call 12
I2-5	13 Veh Call 13
I2-6	14 Veh Call 14
I2-7	15 Veh Call 15
I2-8	16 Veh Call 16
I3-1	189 Unused
I3-2	189 Unused
I3-3	189 Unused
I3-4	189 Unused
I3-5	129 Ped Call 1
I3-6	130 Ped Call 2
I3-7	131 Ped Call 3
I3-8	132 Ped Call 4
I4-1	
I4-2	

#	Event / Alarm	Ev/Alr	Call Phases [1.1.5]				Redirect Phases [1.1.5]				Inhibit Phases [1.1.5]															
			Phases Called By Ø				From To From To From To From To				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16															
1	Power Up Alarm.	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
2	Stop Timing	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
3	TS1 Cabinet Door		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
4	Coordination Failure	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
5	External Alarm # 1	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
6	External Alarm # 2	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
7	External Alarm # 3		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
8	External Alarm # 4		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
9	Closed Loop Disabled	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
10	External Alarm # 5		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
11	External Alarm # 6		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
12	Manual Control Enable	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
13	Coord Free Input		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
14	Local Flash Input	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
15	MMU Flash		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
16	CMU Flash		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
17	Cycle Fault	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
18	Cycle Failure	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
19	Coordination Fault	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
20	Controller Fault	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
21	Detector SDLC Failure		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
22	MMU SDLC Failure		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
23	Critical SDLC Failure		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
24	Reserved		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
25	EEPROM CRC Fault	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
26	Detector Diagnostic Failure		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
27	BIU Detector Failure	1 1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
28	Queue detector alarm	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
29	Ped Detector Fault	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
30	Coord Diagnostic Fault		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
41	TempAlert Probe Ch. A		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
42	TempAlert Probe Ch. B		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
47	Coord Active		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
48	Preempt Active	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
49	Preempt 1 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
50	Preempt 2 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
51	Preempt 3 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
52	Preempt 4 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
53	Preempt 5 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
54	Preempt 6 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
55	Preempt 7 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
56	Preempt 8 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
57	Preempt 9 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
58	Preempt 10 Input	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
61	In Transition	1	Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							
81	FIO Status Alarm		Ø	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16							

Alt Call & Redirect # 1 [1.1.6.3]												Alt Inhibit Phases # 1 [1.1.6.3]															
Col Ø Phases Called By Ø												1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16															
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	1															

R-20

Signal #

**MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

County of ROCKLANDSignal: **R-20**Contract: D262321PIN: 8811.96File: 39.15-303Date: 7/9/2015**TABLE OF SWITCH PACKS**

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL WIRING BOARD		FACE	TERMINAL WIRING BOARD	
				TERMINAL	WIRE COLOR CODE		TERMINAL	WIRE COLOR CODE
1	Ø1	----- 	1	SP 1 R	-----		SP 1 R	
				SP 1 Y	14 / 15C - B - O / B		SP 1 Y	
				SP 1 G	- G / B		SP 1 G	
		Ground Wire		Grnd Bus	- W / B		Grnd Bus	
2	Ø2	Red	3	SP 2 R	14 / 10C - C - R	4	SP 2 R	14 / 10C - D - R
		Yellow		SP 2 Y	- O		SP 2 Y	- O
		Green		SP 2 G	- G		SP 2 G	- G
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W
3	Ø3	Red	5	SP 3 R	14 / 15C - B - R / W	6	SP 3 R	14 / 10C - A - R / B
		Yellow		SP 3 Y	- BL / W		SP 3 Y	- O / B
		Green		SP 3 G	- G / W		SP 3 G	- G / B
		Ground Wire		Grnd Bus	- B / W		Grnd Bus	- W / B
4				SP 4 R			SP 4 R	
				SP 4 Y			SP 4 Y	
				SP 4 G			SP 4 G	
		Ground Wire		Grnd Bus			Grnd Bus	
5				SP 5 R			SP 5 R	
				SP 5 Y			SP 5 Y	
				SP 5 G			SP 5 G	
		Ground Wire		Grnd Bus			Grnd Bus	
6	Ø6	Red	1	SP 6 R	14 / 15C - B - R	2	SP 6 R	14 / 10C - A - R / B
		Yellow		SP 6 Y	- O		SP 6 Y	- O / B
		Green		SP 6 G	- G		SP 6 G	- G / B
		Ground Wire		Grnd Bus	- W		Grnd Bus	- W / B
7				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8				SP 8 R			SP 8 R	
				SP 8 Y			SP 8 Y	
				SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9	PED 1 Ø3	HAND	21	SP 9 R	14 / 5C - 1P - R		SP 9 R	
		-----		SP 9 Y			SP 9 Y	
		MAN		SP 9 G	14 / 5C - 1P - G		SP 9 G	
		Ground Wire		Grnd Bus	14 / 5C - 1P - W		Grnd Bus	
10	PED 2 Ø3	HAND	22	SP 10 R	14 / 5C - 2P - R		SP 10 R	
		-----		SP 10 Y	-----		SP 10 Y	
		MAN		SP 10 G	14 / 5C - 2P - G		SP 10 G	
		Ground Wire		Grnd Bus	14 / 5C - 2P - W		Grnd Bus	
11	PED 3 Ø2	HAND	23	SP 11 R	14 / 5C - 3P - R		SP 11 R	
		-----		SP 11 Y	-----		SP 11 Y	
		MAN		SP 11 G	14 / 5C - 3P - G		SP 11 G	
		Ground Wire		Grnd Bus	14 / 5C - 3P - W		Grnd Bus	
12	PED 4 Ø6	HAND	24	SP 12 R	14 / 5C - 4P - R		SP 12 R	
		-----		SP 12 Y	-----		SP 12 Y	
		MAN		SP 12 G	14 / 5C - 4P - G		SP 12 G	
		Ground Wire		Grnd Bus	14 / 5C - 4P - W		Grnd Bus	
13	Ø3	Red	7	SP 13 R	14 / 10C - C - R / B	8	SP 13 R	14 / 10C - D - R / B
		Yellow		SP 13 Y	- O / B		SP 13 Y	- O / B
		Green		SP 13 G	- G / B		SP 13 G	- G / B
		Ground Wire		Grnd Bus	- W / B		Grnd Bus	- W / B
14				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	

R-20

Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

County of ROCKLAND

Signal:

R-20

Contract:

D262321

PIN:

8811.96

File:

39.15-303

Date:

7/9/2015

TRAFFIC SIGNAL MONITOR PROGRAMMING

CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER)			YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS		210NYR MONITOR BOARD (SWITCH PACKS TO MONITOR)	
SP1-SP6	SP10-SP13		1			
SP1-SP12			2			
	SP11-SP12		3			
SP2-SP6			4			
SP2-SP11			5			
SP2-SP12			6			
			7			
SP3-SP9			8			
SP3-SP10			9	X		
SP3-SP13			10	X		
			11	X		
SP6-SP11			12	X		
SP6-SP12			13			
			14			
SP9-SP10			15			
SP9-SP13			16			

**CURRENT MONITOR BOARD
(IF USED)**

CURRENT MONITOR DIODES
TO BE CUT
(SWITCH PACKS TO *NOT* MONITOR)

1, 4, 5, 7-12, 14-16

Notes:

R-20

Signal #

**MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION**

County of ROCKLANDSignal: **R-20**Contract: D262321PIN: 8811.96File: 39.15-303Date: 7/9/2015**TABLE OF INPUT WIRING**

TERM. NUMBER	FUNCTION	DET. NO.	DET. TYPE	DET. AN OVER	REMARKS
1A, 1B	Ø1	1	QUAD		PRESENCE LOOP
2A, 2B	Ø2	2	QUAD		PRESENCE LOOP
3A, 3B	Ø3	3	QUAD		PRESENCE LOOP
4A, 4B	Ø3	4	QUAD		PRESENCE LOOP
5A, 5B	Ø2	5	QUAD		PRESENCE LOOP
6A, 6B	Ø6	6	QUAD		PRESENCE LOOP
7A, 7B	Ø1	7	NORMAL		PRESENCE LOOP
8A, 8B					
9A, 9B					
10A, 10B					
11A, 11B					
12A, 12B	Ø2	12	NORMAL		PRESENCE LOOP
13A, 13B	Ø3	13	NORMAL		PRESENCE LOOP
14A, 14B	Ø3	14	NORMAL		PRESENCE LOOP
15A, 15B	Ø2	15	NORMAL		PRESENCE LOOP
16A, 16B	Ø6	16	NORMAL		PRESENCE LOOP
17A, 17B					
18A, 18B					
19A, 19B					
20A, 20B					
21A, 21B	PED 1, Ø3	21	BUTTON		PED DETECTOR
22A, 22B	PED 2, Ø3	22	BUTTON		PED DETECTOR
23A, 23B	PED 3, Ø2	23	BUTTON		PED DETECTOR
24A, 24B	PED 4, Ø6	24	BUTTON		PED DETECTOR
25A, 25B					
26A, 26B					
27A, 27B					
28A, 28B					

Appendix C

Capacity Analysis

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	46	105	65	45	11	118	534	57	9	528	64
Future Volume (vph)	60	46	105	65	45	11	118	534	57	9	528	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.933			0.988			0.988			0.984	
Flt Protected		0.986			0.974			0.992			0.999	
Satd. Flow (prot)	0	1724	0	0	1651	0	0	2968	0	0	2950	0
Flt Permitted		0.847			0.538			0.992			0.999	
Satd. Flow (perm)	0	1481	0	0	912	0	0	2968	0	0	2950	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		42			4						12	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Adj. Flow (vph)	65	49	113	70	48	12	127	574	61	10	568	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	227	0	0	130	0	0	762	0	0	647	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		17.9			17.9			34.0			41.1	
Actuated g/C Ratio		0.16			0.16			0.31			0.37	
v/c Ratio		0.82			0.86			0.83			0.58	
Control Delay		58.6			85.7			49.2			30.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		58.6			85.7			49.2			30.8	
LOS		E			F			D			C	
Approach Delay		58.6			85.7			49.2			30.8	
Approach LOS		E			F			D			C	
Queue Length 50th (ft)		128			87			293			187	
Queue Length 95th (ft)		203			#152			#364			275	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)		369			210			917			1109	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.62			0.62			0.83			0.58	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 46.4

Intersection LOS: D

Intersection Capacity Utilization 72.3%

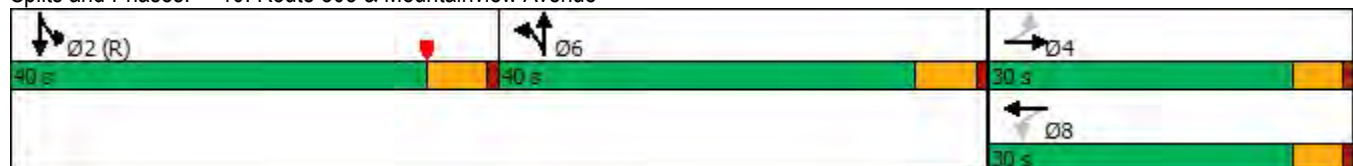
ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	34	89	126	36	10	161	682	78	11	792	37
Future Volume (vph)	52	34	89	126	36	10	161	682	78	11	792	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.931			0.992			0.987			0.993	
Flt Protected		0.985			0.965			0.991			0.999	
Satd. Flow (prot)	0	1733	0	0	1798	0	0	3065	0	0	3184	0
Flt Permitted		0.871			0.560			0.991			0.999	
Satd. Flow (perm)	0	1533	0	0	1043	0	0	3065	0	0	3184	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		44			3						4	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Adj. Flow (vph)	56	37	96	135	39	11	173	733	84	12	852	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	185	0	0	990	0	0	904	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		21.4			21.4			34.0			37.6	
Actuated g/C Ratio		0.19			0.19			0.31			0.34	
v/c Ratio		0.57			0.90			1.05			0.83	
Control Delay		36.7			84.4			73.5			41.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		36.7			84.4			73.5			41.8	
LOS		D			F			E			D	
Approach Delay		36.7			84.4			73.5			41.8	
Approach LOS		D			F			E			D	
Queue Length 50th (ft)		90			123			~406			314	
Queue Length 95th (ft)		161			#239			#541			#445	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)		382			239			947			1091	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.77			1.05			0.83	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 58.7

Intersection LOS: E

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

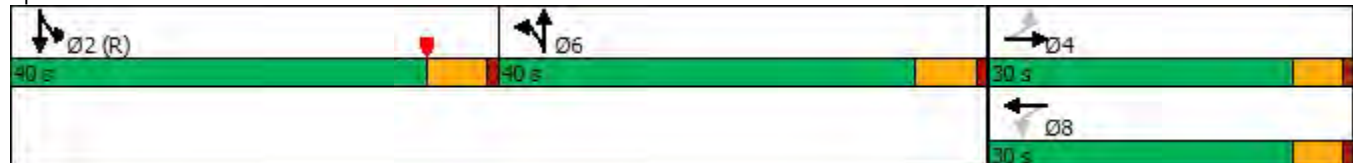
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	55	107	85	51	40	120	608	93	39	571	65
Future Volume (vph)	61	55	107	85	51	40	120	608	93	39	571	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.935			0.969			0.983			0.986	
Flt Protected		0.986			0.976			0.993			0.997	
Satd. Flow (prot)	0	1727	0	0	1514	0	0	2960	0	0	2908	0
Flt Permitted		0.830			0.597			0.993			0.997	
Satd. Flow (perm)	0	1453	0	0	926	0	0	2960	0	0	2908	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		39			12						11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	240	0	0	189	0	0	883	0	0	726	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		22.8			22.8			34.0			36.2	
Actuated g/C Ratio		0.21			0.21			0.31			0.33	
v/c Ratio		0.73			0.94			0.97			0.75	
Control Delay		46.7			91.0			60.5			38.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		46.7			91.0			60.5			38.9	
LOS		D			F			E			D	
Approach Delay		46.7			91.0			60.5			38.9	
Approach LOS		D			F			E			D	
Queue Length 50th (ft)		130			122			345			243	
Queue Length 95th (ft)		220			#254			#468			319	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		360			219			914			965	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.67			0.86			0.97			0.75	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 54.0

Intersection LOS: D

Intersection Capacity Utilization 78.6%

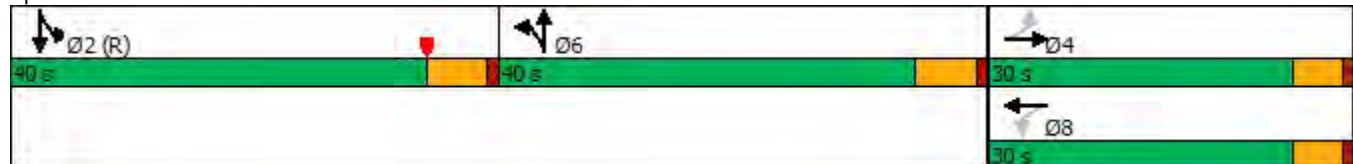
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	38	91	175	47	50	164	722	94	33	858	38
Future Volume (vph)	53	38	91	175	47	50	164	722	94	33	858	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.975			0.986			0.994	
Flt Protected		0.986			0.969			0.992			0.998	
Satd. Flow (prot)	0	1737	0	0	1752	0	0	3065	0	0	3154	0
Flt Permitted		0.849			0.604			0.992			0.998	
Satd. Flow (perm)	0	1496	0	0	1092	0	0	3065	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		42			10							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	0	0	293	0	0	1053	0	0	999	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.53			1.15			1.11			1.02	
Control Delay		34.9			140.9			94.4			72.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		34.9			140.9			94.4			72.6	
LOS		C			F			F			E	
Approach Delay		34.9			140.9			94.4			72.6	
Approach LOS		C			F			F			E	
Queue Length 50th (ft)		95			~238			~457			~394	
Queue Length 95th (ft)		171			#412			m#585			#526	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		372			255			947			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.53			1.15			1.11			1.02	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 86.6

Intersection LOS: F

Intersection Capacity Utilization 98.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

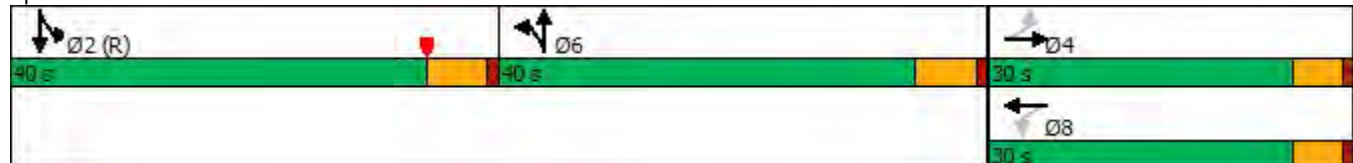
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	56	108	85	54	40	137	608	93	39	575	65
Future Volume (vph)	64	56	108	85	54	40	137	608	93	39	575	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936			0.970			0.983			0.986	
Flt Protected		0.986			0.977			0.992			0.997	
Satd. Flow (prot)	0	1729	0	0	1521	0	0	2959	0	0	2908	0
Flt Permitted		0.821			0.599			0.992			0.997	
Satd. Flow (perm)	0	1439	0	0	933	0	0	2959	0	0	2908	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		38			12						11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	245	0	0	192	0	0	901	0	0	730	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		22.9			22.9			34.0			36.1	
Actuated g/C Ratio		0.21			0.21			0.31			0.33	
v/c Ratio		0.74			0.94			0.99			0.76	
Control Delay		48.4			90.6			64.2			39.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		48.4			90.6			64.2			39.3	
LOS		D			F			E			D	
Approach Delay		48.4			90.6			64.2			39.3	
Approach LOS		D			F			E			D	
Queue Length 50th (ft)		135			124			353			245	
Queue Length 95th (ft)		227			#259			#480			321	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		356			221			914			961	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.69			0.87			0.99			0.76	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 56.0

Intersection LOS: E

Intersection Capacity Utilization 78.5%

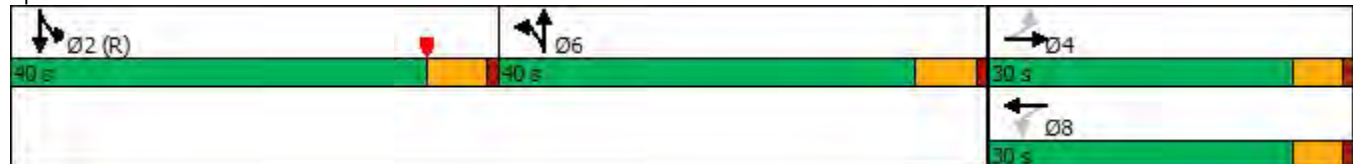
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	41	94	175	48	50	170	722	94	33	871	38
Future Volume (vph)	66	41	94	175	48	50	170	722	94	33	871	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.937			0.975			0.986			0.994	
Flt Protected		0.984			0.969			0.991			0.998	
Satd. Flow (prot)	0	1729	0	0	1752	0	0	3063	0	0	3155	0
Flt Permitted		0.825			0.595			0.991			0.998	
Satd. Flow (perm)	0	1449	0	0	1076	0	0	3063	0	0	3155	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		37			10						4	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	294	0	0	1060	0	0	1013	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.61			1.17			1.12			1.04	
Control Delay		39.4			147.1			97.6			76.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		39.4			147.1			97.6			76.4	
LOS		D			F			F			E	
Approach Delay		39.4			147.1			97.6			76.4	
Approach LOS		D			F			F			E	
Queue Length 50th (ft)		114			~242			~463			~405	
Queue Length 95th (ft)		196			#417			m#590			#538	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		357			252			946			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.61			1.17			1.12			1.04	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 90.1

Intersection LOS: F

Intersection Capacity Utilization 96.9%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

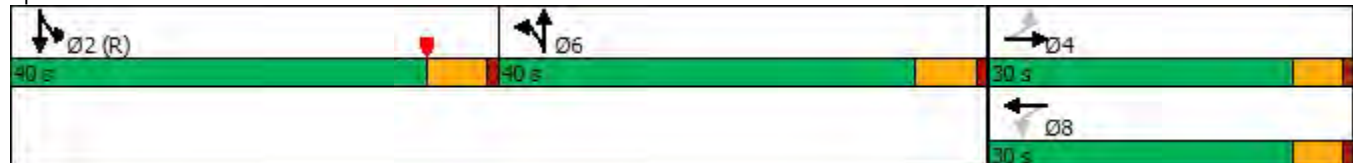
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	56	108	85	54	40	137	608	93	39	575	65
Future Volume (vph)	64	56	108	85	54	40	137	608	93	39	575	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.901			0.970			0.983			0.986	
Flt Protected	0.950				0.977			0.992			0.997	
Satd. Flow (prot)	1796	1681	0	0	1521	0	0	2959	0	0	2908	0
Flt Permitted	0.574				0.612			0.992			0.997	
Satd. Flow (perm)	1085	1681	0	0	953	0	0	2959	0	0	2908	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		82			12						11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	69	176	0	0	192	0	0	901	0	0	730	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)	22.6	22.6			22.6			34.0			36.4	
Actuated g/C Ratio	0.21	0.21			0.21			0.31			0.33	
v/c Ratio	0.31	0.43			0.94			0.99			0.75	
Control Delay	40.1	22.8			89.9			64.2			38.8	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	40.1	22.8			89.9			64.2			38.8	
LOS	D	C			F			E			D	
Approach Delay		27.6			89.9			64.2			38.8	
Approach LOS		C			F			E			D	
Queue Length 50th (ft)	40	55			123			353			245	
Queue Length 95th (ft)	82	120			#256			#480			321	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)	246	445			225			914			970	
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	0.28	0.40			0.85			0.99			0.75	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 53.3

Intersection LOS: D

Intersection Capacity Utilization 85.3%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue

					
Ø2 (R)		Ø6		Ø4	
40 s		40 s		30 s	
				Ø8	
				30 s	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	41	94	175	48	50	170	722	94	33	871	38
Future Volume (vph)	66	41	94	175	48	50	170	722	94	33	871	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.896			0.975			0.986			0.994	
Flt Protected	0.950				0.969			0.991			0.998	
Satd. Flow (prot)	1779	1681	0	0	1752	0	0	3063	0	0	3155	0
Flt Permitted	0.616				0.651			0.991			0.998	
Satd. Flow (perm)	1153	1681	0	0	1177	0	0	3063	0	0	3155	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		97			10							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	145	0	0	294	0	0	1060	0	0	1013	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)	25.0	25.0			25.0			34.0			34.0	
Actuated g/C Ratio	0.23	0.23			0.23			0.31			0.31	
v/c Ratio	0.27	0.32			1.07			1.12			1.04	
Control Delay	38.4	15.4			114.1			97.6			76.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	38.4	15.4			114.1			97.6			76.4	
LOS	D	B			F			F			E	
Approach Delay		22.9			114.1			97.6			76.4	
Approach LOS		C			F			F			E	
Queue Length 50th (ft)	41	27			~225			~463			~405	
Queue Length 95th (ft)	84	81			#399			m#590			#538	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)	262	457			275			946			977	
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	0.27	0.32			1.07			1.12			1.04	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 84.9

Intersection LOS: F

Intersection Capacity Utilization 96.1%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

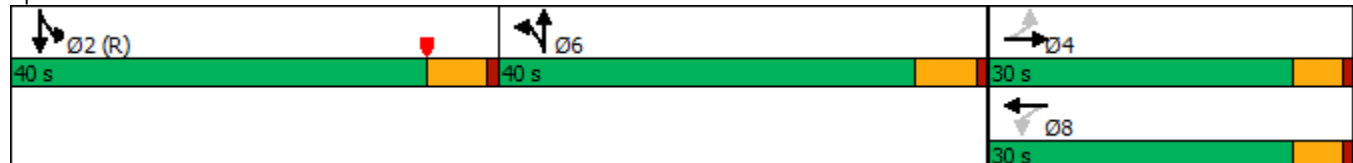
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	67	131	104	63	49	146	742	113	48	697	79
Future Volume (vph)	74	67	131	104	63	49	146	742	113	48	697	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.935			0.969			0.983			0.986	
Flt Protected		0.987			0.977			0.993			0.997	
Satd. Flow (prot)	0	1728	0	0	1516	0	0	2960	0	0	2907	0
Flt Permitted		0.811			0.566			0.993			0.997	
Satd. Flow (perm)	0	1420	0	0	878	0	0	2960	0	0	2907	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		39			12						11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	233	0	0	1077	0	0	886	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.83			1.12			1.18			0.98	
Control Delay		56.1			136.9			121.6			62.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		56.1			136.9			121.6			62.8	
LOS		E			F			F			E	
Approach Delay		56.1			136.9			121.6			62.8	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)		174			~183			~489			322	
Queue Length 95th (ft)		#321			#342			m#590			#461	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		352			208			914			906	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.83			1.12			1.18			0.98	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 94.4

Intersection LOS: F

Intersection Capacity Utilization 86.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

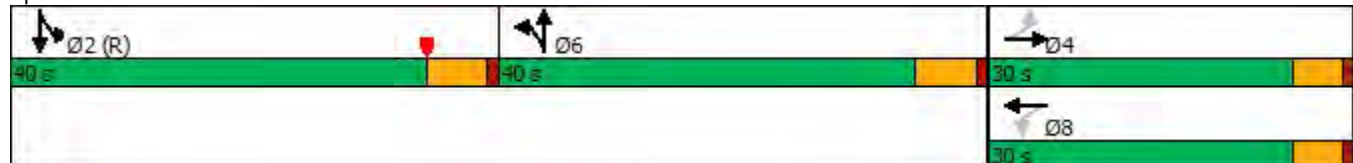
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	46	111	215	58	61	200	882	115	40	1049	46
Future Volume (vph)	65	46	111	215	58	61	200	882	115	40	1049	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.975			0.986			0.994	
Flt Protected		0.986			0.969			0.992			0.998	
Satd. Flow (prot)	0	1737	0	0	1752	0	0	3065	0	0	3154	0
Flt Permitted		0.844			0.559			0.992			0.998	
Satd. Flow (perm)	0	1487	0	0	1011	0	0	3065	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		42			10						4	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	238	0	0	359	0	0	1287	0	0	1220	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.64			1.51			1.36			1.25	
Control Delay		40.5			283.4			192.9			154.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		40.5			283.4			192.9			154.3	
LOS		D			F			F			F	
Approach Delay		40.5			283.4			192.9			154.3	
Approach LOS		D			F			F			F	
Queue Length 50th (ft)		126			~351			~645			~569	
Queue Length 95th (ft)		214			#537			m#607			#706	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		370			237			947			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.64			1.51			1.36			1.25	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 176.5

Intersection LOS: F

Intersection Capacity Utilization 115.3%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

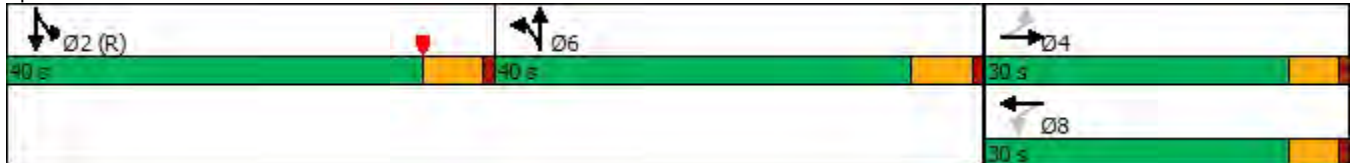
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	68	132	104	66	49	163	742	113	48	701	79
Future Volume (vph)	77	68	132	104	66	49	163	742	113	48	701	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936			0.970			0.983			0.986	
Flt Protected		0.986			0.977			0.992			0.997	
Satd. Flow (prot)	0	1729	0	0	1521	0	0	2959	0	0	2907	0
Flt Permitted		0.803			0.568			0.992			0.997	
Satd. Flow (perm)	0	1408	0	0	884	0	0	2959	0	0	2907	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		39			12						10	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	298	0	0	236	0	0	1095	0	0	891	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.85			1.12			1.20			0.98	
Control Delay		58.5			137.8			129.4			64.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		58.5			137.8			129.4			64.4	
LOS		E			F			F			E	
Approach Delay		58.5			137.8			129.4			64.4	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)		178			~186			~504			325	
Queue Length 95th (ft)		#331			#347			m#595			#466	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		350			210			914			905	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.85			1.12			1.20			0.98	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 98.8

Intersection LOS: F

Intersection Capacity Utilization 87.1%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

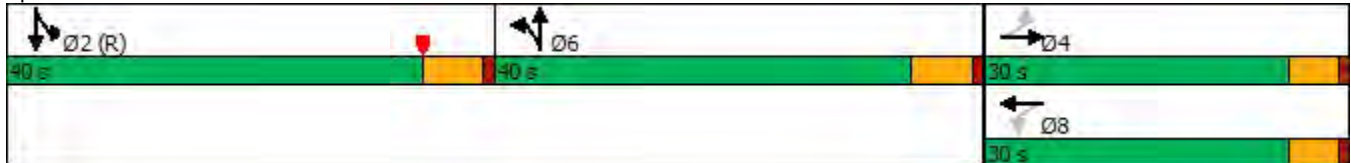
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	49	114	215	59	61	206	882	115	40	1062	46
Future Volume (vph)	78	49	114	215	59	61	206	882	115	40	1062	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936			0.975			0.986			0.994	
Flt Protected		0.984			0.969			0.991			0.998	
Satd. Flow (prot)	0	1727	0	0	1752	0	0	3063	0	0	3154	0
Flt Permitted		0.825			0.551			0.991			0.998	
Satd. Flow (perm)	0	1448	0	0	996	0	0	3063	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		38			10						4	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	260	0	0	360	0	0	1294	0	0	1234	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.73			1.54			1.37			1.26	
Control Delay		46.4			293.4			196.7			160.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		46.4			293.4			196.7			160.2	
LOS		D			F			F			F	
Approach Delay		46.4			293.4			196.7			160.2	
Approach LOS		D			F			F			F	
Queue Length 50th (ft)		147			~355			~652			~580	
Queue Length 95th (ft)		#260			#543			m#609			#718	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		358			234			946			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.73			1.54			1.37			1.26	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.54

Intersection Signal Delay: 181.1

Intersection LOS: F

Intersection Capacity Utilization 115.2%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

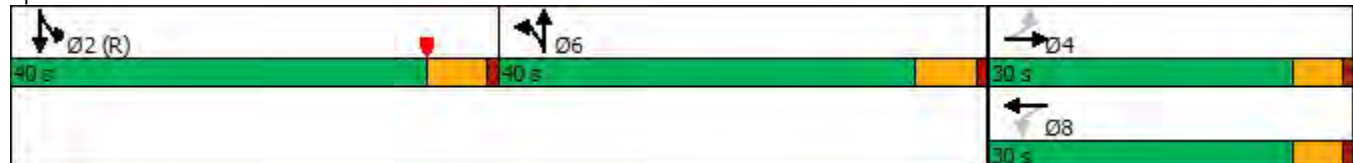
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	68	132	104	66	49	163	742	113	48	701	79
Future Volume (vph)	77	68	132	104	66	49	163	742	113	48	701	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.901			0.970			0.983			0.986	
Flt Protected	0.950				0.977			0.992			0.997	
Satd. Flow (prot)	1796	1681	0	0	1521	0	0	2959	0	0	2907	0
Flt Permitted	0.551				0.550			0.992			0.997	
Satd. Flow (perm)	1042	1681	0	0	856	0	0	2959	0	0	2907	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		82			12						10	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	215	0	0	236	0	0	1095	0	0	891	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)	25.0	25.0			25.0			34.0			34.0	
Actuated g/C Ratio	0.23	0.23			0.23			0.31			0.31	
v/c Ratio	0.35	0.48			1.16			1.20			0.98	
Control Delay	40.8	26.5			151.3			129.4			64.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	40.8	26.5			151.3			129.4			64.4	
LOS	D	C			F			F			E	
Approach Delay		30.5			151.3			129.4			64.4	
Approach LOS		C			F			F			E	
Queue Length 50th (ft)	50	80			~191			~504			325	
Queue Length 95th (ft)	98	156			#352			m#595			#466	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)	236	445			203			914			905	
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	0.48			1.16			1.20			0.98	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 96.8

Intersection LOS: F

Intersection Capacity Utilization 94.4%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

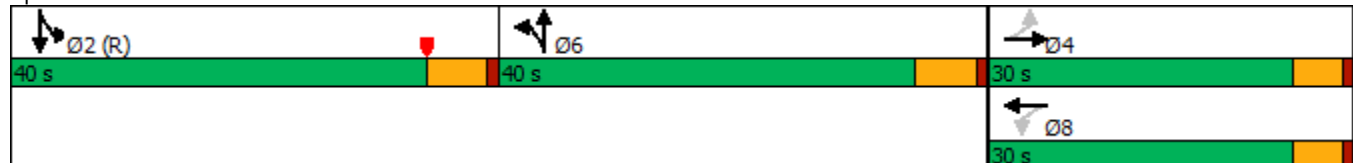
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	49	114	215	59	61	206	882	115	40	1062	46
Future Volume (vph)	78	49	114	215	59	61	206	882	115	40	1062	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.895			0.975			0.986			0.994	
Flt Protected	0.950				0.969			0.991			0.998	
Satd. Flow (prot)	1779	1679	0	0	1752	0	0	3063	0	0	3154	0
Flt Permitted	0.616				0.585			0.991			0.998	
Satd. Flow (perm)	1153	1679	0	0	1058	0	0	3063	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		98			10							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	3%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	176	0	0	360	0	0	1294	0	0	1234	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)	25.0	25.0			25.0			34.0			34.0	
Actuated g/C Ratio	0.23	0.23			0.23			0.31			0.31	
v/c Ratio	0.32	0.39			1.45			1.37			1.26	
Control Delay	39.5	19.0			256.6			196.7			160.2	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	39.5	19.0			256.6			196.7			160.2	
LOS	D	B			F			F			F	
Approach Delay		25.7			256.6			196.7			160.2	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)	50	45			~345			~652			~580	
Queue Length 95th (ft)	97	108			#532			m#609			#718	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)	262	457			248			946			977	
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	0.39			1.45			1.37			1.26	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.45

Intersection Signal Delay: 175.1

Intersection LOS: F

Intersection Capacity Utilization 112.7%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

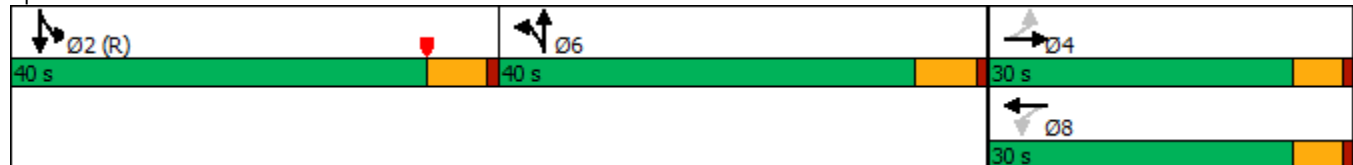
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	13	246	13	9	8	236	508	2	10	490	198
Future Volume (vph)	193	13	246	13	9	8	236	508	2	10	490	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.957	
Flt Protected		0.955			0.972			0.984			0.999	
Satd. Flow (prot)	0	1686	1481	0	1847	1615	0	3182	0	0	2995	0
Flt Permitted		0.955			0.701			0.575			0.941	
Satd. Flow (perm)	0	1686	1462	0	1331	1615	0	1859	0	0	2821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			262			119					65	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Adj. Flow (vph)	205	14	262	14	10	9	251	540	2	11	521	211
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	219	262	0	24	9	0	793	0	0	743	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		18.6	28.6		7.0	7.0		73.5			58.5	
Actuated g/C Ratio		0.17	0.26		0.06	0.06		0.67			0.53	
v/c Ratio		0.77	0.46		0.29	0.04		0.58			0.49	
Control Delay		60.7	5.8		56.9	0.4		15.5			21.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		60.7	5.8		56.9	0.4		15.5			21.9	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	A		E	A		B			C	
Approach Delay		30.8			41.5			15.5			21.9	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		149	0		17	0		89			104	
Queue Length 95th (ft)		218	53		43	0		137			219	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		383	645		121	255		1362			1530	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.57	0.41		0.20	0.04		0.58			0.49	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 21.8

Intersection LOS: C

Intersection Capacity Utilization 105.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	16	205	23	40	12	250	650	8	4	706	297
Future Volume (vph)	259	16	205	23	40	12	250	650	8	4	706	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.956	
Flt Protected		0.955			0.982			0.986				
Satd. Flow (prot)	0	1613	1538	0	1866	1615	0	3344	0	0	3230	0
Flt Permitted		0.955			0.761			0.507			0.952	
Satd. Flow (perm)	0	1610	1538	0	1446	1592	0	1719	0	0	3075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			216			119		1			71	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Adj. Flow (vph)	273	17	216	24	42	13	263	684	8	4	743	313
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	216	0	66	13	0	955	0	0	1060	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		22.6	37.6		8.6	8.6		65.9			50.9	
Actuated g/C Ratio		0.21	0.34		0.08	0.08		0.60			0.46	
v/c Ratio		0.88	0.32		0.59	0.06		0.81			0.73	
Control Delay		68.5	4.6		69.7	0.4		27.7			36.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		68.5	4.6		69.7	0.4		27.7			36.2	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	A		E	A		C			D	
Approach Delay		41.3			58.3			27.7			36.2	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		194	0		45	0		151			256	
Queue Length 95th (ft)		#327	49		92	0		m#205			323	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	696		131	252		1177			1459	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.79	0.31		0.50	0.05		0.81			0.73	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 34.7

Intersection LOS: C

Intersection Capacity Utilization 109.4%

ICU Level of Service H

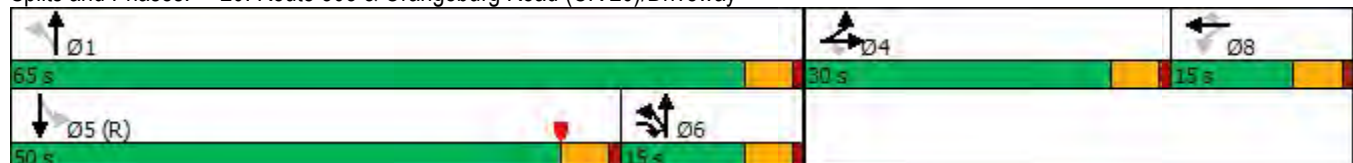
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	13	253	13	9	8	243	602	2	10	547	206
Future Volume (vph)	211	13	253	13	9	8	243	602	2	10	547	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.960	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1685	1481	0	1847	1615	0	3183	0	0	3006	0
Flt Permitted		0.955			0.691			0.564			0.939	
Satd. Flow (perm)	0	1685	1462	0	1312	1615	0	1821	0	0	2825	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			269			119					58	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	238	269	0	24	9	0	901	0	0	812	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		19.5	29.5		7.0	7.0		72.6			57.6	
Actuated g/C Ratio		0.18	0.27		0.06	0.06		0.66			0.52	
v/c Ratio		0.80	0.46		0.29	0.04		0.68			0.54	
Control Delay		62.2	5.6		57.1	0.4		17.7			29.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		62.2	5.6		57.1	0.4		17.7			29.2	
LOS		E	A		E	A		B			C	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		32.2			41.7			17.7			29.2	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		162	0		17	0		88			191	
Queue Length 95th (ft)		238	54		43	0		162			m240	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	650		119	255		1325			1506	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.62	0.41		0.20	0.04		0.68			0.54	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.5

Intersection LOS: C

Intersection Capacity Utilization 106.5%

ICU Level of Service G

Analysis Period (min) 15

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	16	213	23	41	12	260	700	8	4	806	314
Future Volume (vph)	268	16	213	23	41	12	260	700	8	4	806	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1613	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.760			0.505			0.952	
Satd. Flow (perm)	0	1610	1538	0	1444	1592	0	1712	0	0	3080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198			119		1			63	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	299	224	0	67	13	0	1019	0	0	1183	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		22.9	37.9		8.6	8.6		65.5			50.5	
Actuated g/C Ratio		0.21	0.34		0.08	0.08		0.60			0.46	
v/c Ratio		0.89	0.34		0.60	0.06		1.01dl			0.82	
Control Delay		70.6	6.4		70.1	0.4		30.4			40.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		70.6	6.4		70.1	0.4		30.4			40.4	
LOS		E	A		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		43.1			58.8			30.4			40.4	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		202	12		46	0		171			302	
Queue Length 95th (ft)		#343	64		93	0		m#231			m293	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	685		131	252		1168			1449	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.82	0.33		0.51	0.05		0.87			0.82	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 37.8

Intersection LOS: D

Intersection Capacity Utilization 109.9%

ICU Level of Service H

Analysis Period (min) 15

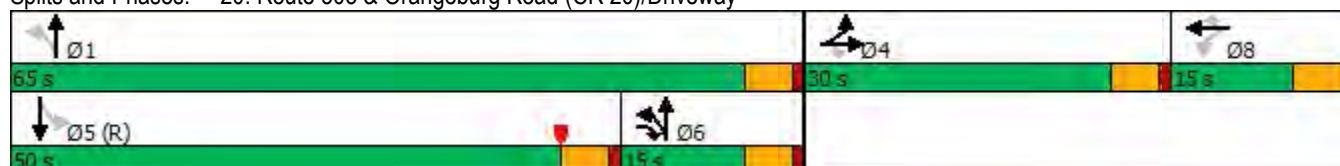
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	218	13	253	13	9	8	243	612	2	10	550	208
Future Volume (vph)	218	13	253	13	9	8	243	612	2	10	550	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.959	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1685	1481	0	1847	1615	0	3183	0	0	3003	0
Flt Permitted		0.955			0.687			0.563			0.939	
Satd. Flow (perm)	0	1685	1462	0	1305	1615	0	1817	0	0	2822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			269			119					59	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	269	0	24	9	0	912	0	0	817	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		19.9	29.9		7.0	7.0		72.2			57.2	
Actuated g/C Ratio		0.18	0.27		0.06	0.06		0.66			0.52	
v/c Ratio		0.81	0.45		0.29	0.04		0.69			0.55	
Control Delay		62.8	5.6		57.3	0.4		18.4			29.7	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		62.8	5.6		57.3	0.4		18.4			29.7	
LOS		E	A		E	A		B			C	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		32.9			41.7			18.4			29.7	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		167	0		17	0		91			192	
Queue Length 95th (ft)		247	54		43	0		164			m241	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	650		118	255		1316			1495	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.64	0.41		0.20	0.04		0.69			0.55	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 26.0

Intersection LOS: C

Intersection Capacity Utilization 106.9%

ICU Level of Service G

Analysis Period (min) 15

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	16	213	23	41	12	260	704	8	4	815	321
Future Volume (vph)	270	16	213	23	41	12	260	704	8	4	815	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1613	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.760			0.506			0.952	
Satd. Flow (perm)	0	1610	1538	0	1444	1592	0	1716	0	0	3080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			119		1			64	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	301	224	0	67	13	0	1023	0	0	1200	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	6	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		23.0	38.0		8.6	8.6		65.5			50.5	
Actuated g/C Ratio		0.21	0.35		0.08	0.08		0.60			0.46	
v/c Ratio		0.89	0.34		0.60	0.06		1.03dl			0.83	
Control Delay		70.9	6.6		70.1	0.4		30.6			40.6	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		70.9	6.6		70.1	0.4		30.6			40.6	
LOS		E	A		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		43.5			58.8			30.6			40.6	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		203	13		46	0		172			306	
Queue Length 95th (ft)		#346	65		93	0		m#234			m294	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	659		131	252		1169			1447	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.82	0.34		0.51	0.05		0.88			0.83	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 38.0

Intersection LOS: D

Intersection Capacity Utilization 110.0%

ICU Level of Service H

Analysis Period (min) 15

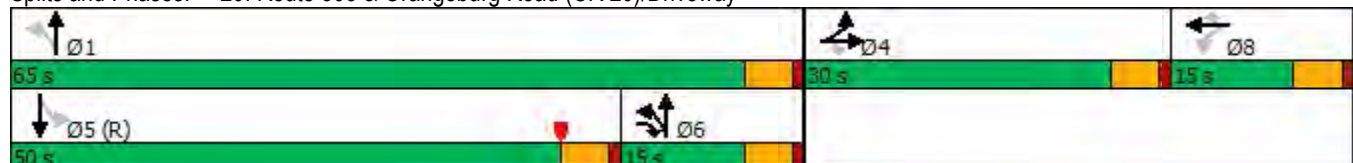
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	13	310	13	9	8	297	736	2	11	669	252
Future Volume (vph)	257	13	310	13	9	8	297	736	2	11	669	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.959	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1684	1481	0	1847	1615	0	3183	0	0	3004	0
Flt Permitted		0.955			0.667			0.522			0.936	
Satd. Flow (perm)	0	1684	1462	0	1267	1615	0	1685	0	0	2814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			252			119						58
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	287	330	0	24	9	0	1101	0	0	992	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		21.9	31.9		7.0	7.0		70.1			55.1	
Actuated g/C Ratio		0.20	0.29		0.06	0.06		0.64			0.50	
v/c Ratio		0.86	0.55		0.30	0.04		0.91			0.69	
Control Delay		65.8	10.7		57.8	0.4		29.8			35.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		65.8	10.7		57.8	0.4		29.8			35.4	
LOS		E	B		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.3			42.1			29.8			35.4	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)		193	37		17	0		192			245	
Queue Length 95th (ft)		#309	112		43	0		#381			m253	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	638		115	255		1210			1439	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.75	0.52		0.21	0.04		0.91			0.69	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 33.4

Intersection LOS: C

Intersection Capacity Utilization 109.1%

ICU Level of Service H

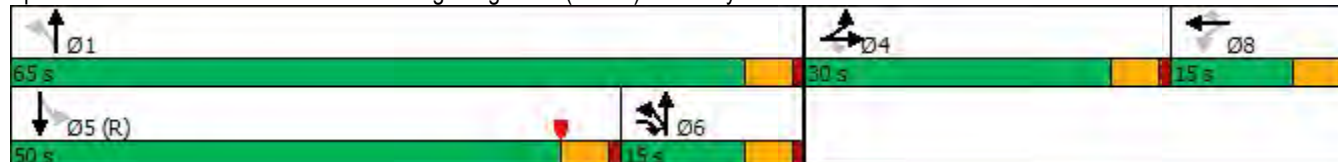
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	16	262	24	41	13	318	856	8	5	986	384
Future Volume (vph)	328	16	262	24	41	13	318	856	8	5	986	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1611	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.731			0.523			0.950	
Satd. Flow (perm)	0	1608	1538	0	1389	1592	0	1773	0	0	3073	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169			119		1			63	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	362	276	0	68	14	0	1244	0	0	1447	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	6	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effct Green (s)		25.0	40.0		8.7	8.7		63.4			48.4	
Actuated g/C Ratio		0.23	0.36		0.08	0.08		0.58			0.44	
v/c Ratio		0.99	0.41		0.62	0.06		1.48dl			1.04	
Control Delay		87.8	12.0		72.7	0.5		65.2			64.3	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		87.8	12.0		72.7	0.5		65.2			64.3	
LOS		F	B		E	A		E			E	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		55.0			60.3			65.2			64.3	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		256	51		47	0		~341			~434	
Queue Length 95th (ft)		#448	122		#100	0		m#364			m296	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	666		126	252		1165			1386	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.99	0.41		0.54	0.06		1.07			1.04	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 62.8

Intersection LOS: E

Intersection Capacity Utilization 115.4%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

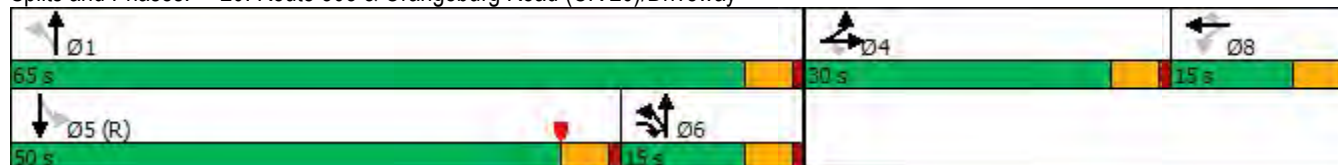
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	264	13	310	13	9	8	297	746	2	11	672	254
Future Volume (vph)	264	13	310	13	9	8	297	746	2	11	672	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.959	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1684	1481	0	1847	1615	0	3183	0	0	3004	0
Flt Permitted		0.955			0.663			0.521			0.936	
Satd. Flow (perm)	0	1684	1462	0	1259	1615	0	1682	0	0	2814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			251			119					59	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	295	330	0	24	9	0	1112	0	0	997	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		22.3	32.3		7.0	7.0		69.8			54.8	
Actuated g/C Ratio		0.20	0.29		0.06	0.06		0.63			0.50	
v/c Ratio		0.87	0.54		0.30	0.04		0.92			0.70	
Control Delay		66.8	10.7		58.0	0.4		31.5			35.6	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		66.8	10.7		58.0	0.4		31.5			35.6	
LOS		E	B		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		37.2			42.3			31.5			35.6	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)		198	38		17	0		200			247	
Queue Length 95th (ft)		#324	113		43	0		#420			m253	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	638		114	255		1203			1431	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.77	0.52		0.21	0.04		0.92			0.70	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 34.4

Intersection LOS: C

Intersection Capacity Utilization 109.5%

ICU Level of Service H

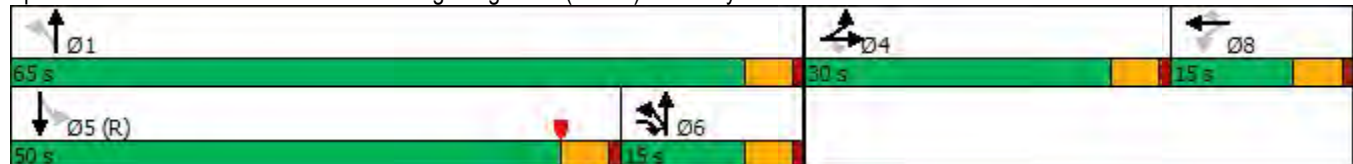
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	16	262	24	41	13	318	860	8	5	995	391
Future Volume (vph)	330	16	262	24	41	13	318	860	8	5	995	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1611	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.730			0.524			0.950	
Satd. Flow (perm)	0	1608	1538	0	1387	1592	0	1776	0	0	3073	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			168			119		1			64	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	364	276	0	68	14	0	1248	0	0	1464	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effct Green (s)		25.0	40.0		8.7	8.7		63.4			48.4	
Actuated g/C Ratio		0.23	0.36		0.08	0.08		0.58			0.44	
v/c Ratio		0.99	0.41		0.62	0.06		1.48dl			1.06	
Control Delay		89.2	12.1		72.7	0.5		66.0			68.8	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		89.2	12.1		72.7	0.5		66.0			68.8	
LOS		F	B		E	A		E			E	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		55.9			60.3			66.0			68.8	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		258	52		47	0		~346			~444	
Queue Length 95th (ft)		#452	122		#100	0		m#369			m296	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	666		126	252		1166			1387	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.99	0.41		0.54	0.06		1.07			1.06	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 65.2

Intersection LOS: E

Intersection Capacity Utilization 115.9%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

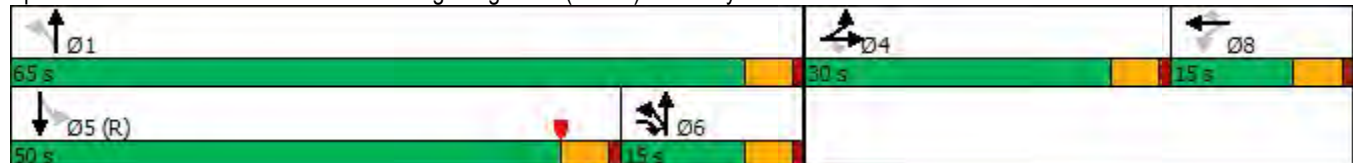
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	28	7	58	30	207	6	514	63	233	496	20
Future Volume (vph)	25	28	7	58	30	207	6	514	63	233	496	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.985			0.905			0.984			0.996	
Flt Protected		0.979			0.990						0.985	
Satd. Flow (prot)	0	1871	0	0	1617	0	0	3141	0	0	3139	0
Flt Permitted		0.620			0.927			0.948			0.602	
Satd. Flow (perm)	0	1185	0	0	1514	0	0	2978	0	0	1918	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			113			14				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Adj. Flow (vph)	26	29	7	61	32	218	6	541	66	245	522	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	311	0	0	613	0	0	788	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		20.1			20.1			61.7			79.9	
Actuated g/C Ratio		0.18			0.18			0.56			0.73	
v/c Ratio		0.28			0.84			0.37			0.51	
Control Delay		35.4			46.7			15.5			9.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		35.4			46.7			15.5			9.1	
LOS		D			D			B			A	
Approach Delay		35.4			46.7			15.5			9.1	
Approach LOS		D			D			B			A	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		34			139			121			105	
Queue Length 95th (ft)		66			220			197			107	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		381			558			1675			1559	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.56			0.37			0.51	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 18.8

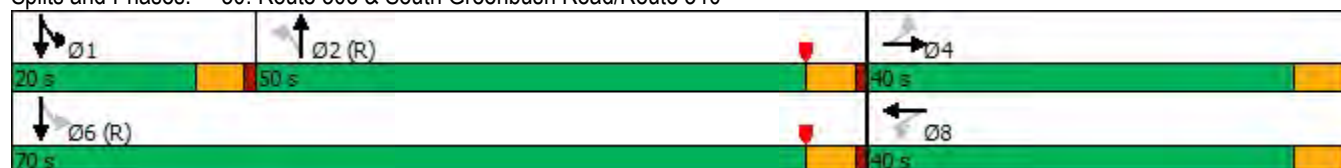
Intersection LOS: B

Intersection Capacity Utilization 90.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	26	11	78	52	330	13	553	49	211	701	22
Future Volume (vph)	25	26	11	78	52	330	13	553	49	211	701	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.903			0.988			0.996	
Flt Protected		0.981			0.992			0.999			0.989	
Satd. Flow (prot)	0	2050	0	0	1654	0	0	3369	0	0	3310	0
Flt Permitted		0.681			0.928			0.923			0.589	
Satd. Flow (perm)	0	1423	0	0	1547	0	0	3113	0	0	1971	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		10			122			10				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Adj. Flow (vph)	27	29	12	86	57	363	14	608	54	232	770	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	506	0	0	676	0	0	1026	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		32.0			32.0			48.0			68.0	
Actuated g/C Ratio		0.29			0.29			0.44			0.62	
v/c Ratio		0.16			0.94			0.50			0.73	
Control Delay		24.5			56.0			24.2			18.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.5			56.0			24.2			18.3	
LOS		C			E			C			B	
Approach Delay		24.5			56.0			24.2			18.3	
Approach LOS		C			E			C			B	
Queue Length 50th (ft)		29			266			183			123	
Queue Length 95th (ft)		63			#466			240			201	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		459			575			1363			1400	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.88			0.50			0.73	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 28.6

Intersection LOS: C

Intersection Capacity Utilization 105.5%

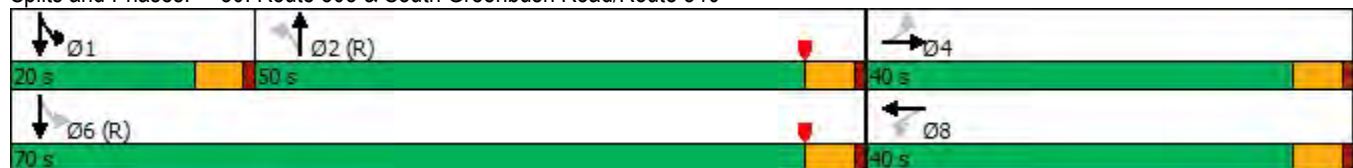
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	7	59	31	227	7	594	64	248	545	20
Future Volume (vph)	26	30	7	59	31	227	7	594	64	248	545	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.986			0.903			0.986			0.996	
Flt Protected		0.980			0.991			0.999			0.985	
Satd. Flow (prot)	0	1877	0	0	1616	0	0	3144	0	0	3139	0
Flt Permitted		0.621			0.929			0.947			0.578	
Satd. Flow (perm)	0	1189	0	0	1515	0	0	2981	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			121			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	334	0	0	699	0	0	856	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		21.4			21.4			59.8			78.6	
Actuated g/C Ratio		0.19			0.19			0.54			0.71	
v/c Ratio		0.28			0.85			0.43			0.58	
Control Delay		34.3			46.3			17.4			10.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		34.3			46.3			17.4			10.2	
LOS		C			D			B			B	
Approach Delay		34.3			46.3			17.4			10.2	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)		36			150			148			69	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		68			232			240			143	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		382			564			1624			1493	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.59			0.43			0.57	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 19.8

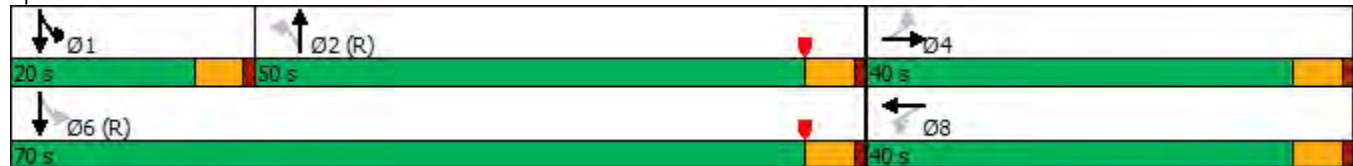
Intersection LOS: B

Intersection Capacity Utilization 93.2%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	11	94	53	343	16	599	50	244	780	22
Future Volume (vph)	26	30	11	94	53	343	16	599	50	244	780	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.978			0.905			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2054	0	0	1658	0	0	3373	0	0	3311	0
Flt Permitted		0.688			0.920			0.906			0.565	
Satd. Flow (perm)	0	1441	0	0	1539	0	0	3059	0	0	1894	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			112			9				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	538	0	0	731	0	0	1149	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		34.1			34.1			45.9			65.9	
Actuated g/C Ratio		0.31			0.31			0.42			0.60	
v/c Ratio		0.16			0.97			0.57			0.87	
Control Delay		24.8			62.2			26.6			25.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.8			62.2			26.6			25.0	
LOS		C			E			C			C	
Approach Delay		24.8			62.2			26.6			25.0	
Approach LOS		C			E			C			C	
Queue Length 50th (ft)		33			307			204			191	
Queue Length 95th (ft)		69			#530			266			#274	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		464			566			1282			1328	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.95			0.57			0.87	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 33.5

Intersection LOS: C

Intersection Capacity Utilization 111.2%

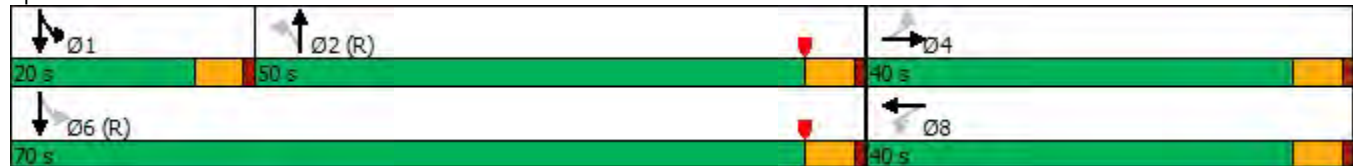
ICU Level of Service H

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	7	59	31	234	7	597	64	250	546	20
Future Volume (vph)	26	30	7	59	31	234	7	597	64	250	546	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.986			0.903			0.986			0.996	
Flt Protected		0.980			0.991						0.985	
Satd. Flow (prot)	0	1877	0	0	1616	0	0	3147	0	0	3139	0
Flt Permitted		0.619			0.930			0.947			0.576	
Satd. Flow (perm)	0	1185	0	0	1516	0	0	2981	0	0	1836	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			124			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	341	0	0	702	0	0	859	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		21.7			21.7			59.4			78.3	
Actuated g/C Ratio		0.20			0.20			0.54			0.71	
v/c Ratio		0.28			0.86			0.43			0.58	
Control Delay		33.9			46.1			17.7			10.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		33.9			46.1			17.7			10.4	
LOS		C			D			B			B	
Approach Delay		33.9			46.1			17.7			10.4	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)		36			153			150			70	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		68			237			243			145	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		381			566			1614			1484	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.60			0.43			0.58	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 20.0

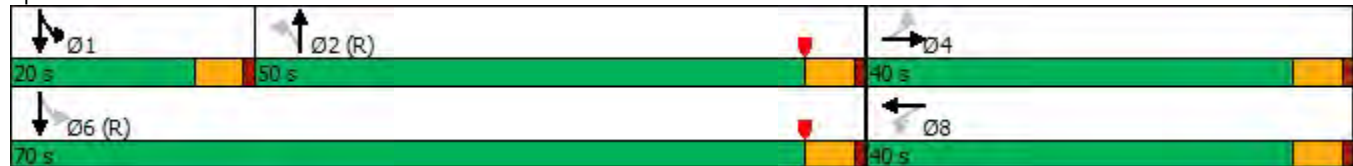
Intersection LOS: B

Intersection Capacity Utilization 93.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	11	94	53	345	16	601	50	250	783	22
Future Volume (vph)	26	30	11	94	53	345	16	601	50	250	783	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.978			0.905			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2054	0	0	1658	0	0	3373	0	0	3311	0
Flt Permitted		0.687			0.920			0.906			0.563	
Satd. Flow (perm)	0	1439	0	0	1539	0	0	3059	0	0	1887	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			113			9				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	540	0	0	733	0	0	1159	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		34.1			34.1			45.9			65.9	
Actuated g/C Ratio		0.31			0.31			0.42			0.60	
v/c Ratio		0.16			0.97			0.57			0.88	
Control Delay		24.8			62.7			26.6			25.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.8			62.7			26.6			25.8	
LOS		C			E			C			C	
Approach Delay		24.8			62.7			26.6			25.8	
Approach LOS		C			E			C			C	
Queue Length 50th (ft)		33			308			205			196	
Queue Length 95th (ft)		69			#533			267			#286	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		464			566			1281			1324	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.95			0.57			0.88	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 34.0

Intersection LOS: C

Intersection Capacity Utilization 111.6%

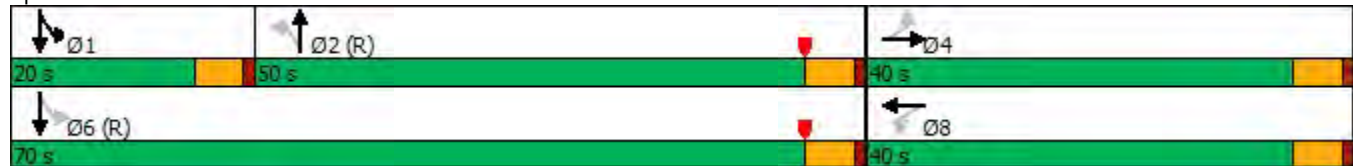
ICU Level of Service H

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	9	72	38	277	9	726	78	303	665	24
Future Volume (vph)	32	37	9	72	38	277	9	726	78	303	665	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.985			0.903			0.986			0.996	
Flt Protected		0.980			0.991			0.999			0.985	
Satd. Flow (prot)	0	1874	0	0	1616	0	0	3144	0	0	3139	0
Flt Permitted		0.624			0.925			0.942			0.532	
Satd. Flow (perm)	0	1193	0	0	1508	0	0	2965	0	0	1695	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			121			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	408	0	0	855	0	0	1044	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		26.6			26.6			53.4			73.4	
Actuated g/C Ratio		0.24			0.24			0.49			0.67	
v/c Ratio		0.28			0.89			0.59			0.79	
Control Delay		31.4			50.1			23.7			19.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		31.4			50.1			23.7			19.0	
LOS		C			D			C			B	
Approach Delay		31.4			50.1			23.7			19.0	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)		43			202			222			140	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		79			303			329			#264	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		383			562			1445			1328	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.73			0.59			0.79	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 26.4

Intersection LOS: C

Intersection Capacity Utilization 102.8%

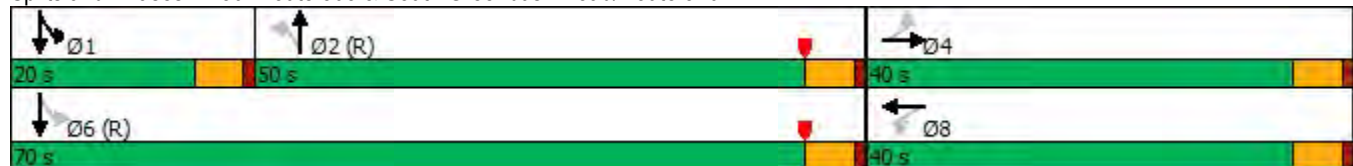
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	13	115	65	419	20	731	61	298	952	27
Future Volume (vph)	32	37	13	115	65	419	20	731	61	298	952	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.979			0.905			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2057	0	0	1658	0	0	3373	0	0	3311	0
Flt Permitted		0.617			0.915			0.883			0.522	
Satd. Flow (perm)	0	1294	0	0	1531	0	0	2981	0	0	1749	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			112			9				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	657	0	0	892	0	0	1403	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effect Green (s)		35.0			35.0			45.0			65.0	
Actuated g/C Ratio		0.32			0.32			0.41			0.59	
v/c Ratio		0.22			1.17			0.73			1.13	
Control Delay		26.3			122.8			31.3			87.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.3			122.8			31.3			87.7	
LOS		C			F			C			F	
Approach Delay		26.3			122.8			31.3			87.7	
Approach LOS		C			F			C			F	
Queue Length 50th (ft)		41			~497			271			~263	
Queue Length 95th (ft)		83			#724			349			m#276	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		417			563			1224			1246	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			1.17			0.73			1.13	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 76.9

Intersection LOS: E

Intersection Capacity Utilization 124.8%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

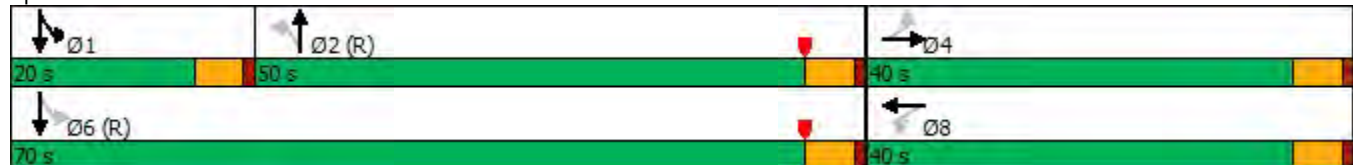
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	9	72	38	284	9	729	78	305	666	24
Future Volume (vph)	32	37	9	72	38	284	9	729	78	305	666	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.985			0.903			0.986			0.996	
Flt Protected		0.980			0.991			0.999			0.985	
Satd. Flow (prot)	0	1874	0	0	1616	0	0	3144	0	0	3139	0
Flt Permitted		0.621			0.926			0.942			0.531	
Satd. Flow (perm)	0	1187	0	0	1510	0	0	2965	0	0	1692	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			124			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	415	0	0	858	0	0	1047	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		26.8			26.8			53.2			73.2	
Actuated g/C Ratio		0.24			0.24			0.48			0.67	
v/c Ratio		0.28			0.90			0.60			0.79	
Control Delay		31.3			50.2			23.9			19.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		31.3			50.2			23.9			19.4	
LOS		C			D			C			B	
Approach Delay		31.3			50.2			23.9			19.4	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)		43			205			225			146	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		79			309			331			#269	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		381			565			1439			1322	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.73			0.60			0.79	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 26.7

Intersection LOS: C

Intersection Capacity Utilization 103.3%

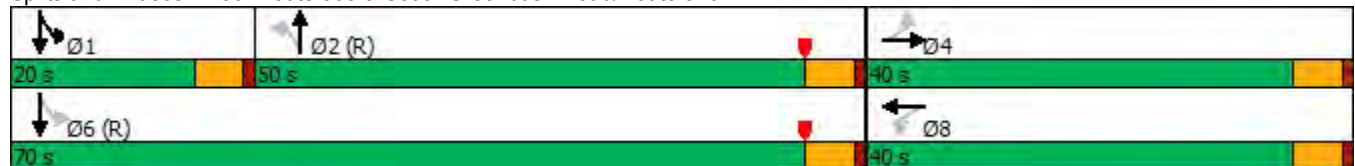
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	13	115	65	421	20	733	61	304	955	27
Future Volume (vph)	32	37	13	115	65	421	20	733	61	304	955	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.979			0.905			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2057	0	0	1658	0	0	3373	0	0	3311	0
Flt Permitted		0.616			0.916			0.882			0.521	
Satd. Flow (perm)	0	1291	0	0	1532	0	0	2978	0	0	1746	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			113			9				
Link Speed (mph)		30			40			40				40
Link Distance (ft)		280			324			945				621
Travel Time (s)		6.4			5.5			16.1				10.6
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	660	0	0	894	0	0	1413	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effect Green (s)		35.0			35.0			45.0			65.0	
Actuated g/C Ratio		0.32			0.32			0.41			0.59	
v/c Ratio		0.22			1.17			0.73			1.13	
Control Delay		26.4			124.0			31.4			91.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.4			124.0			31.4			91.3	
LOS		C			F			C			F	
Approach Delay		26.4			124.0			31.4			91.3	
Approach LOS		C			F			C			F	
Queue Length 50th (ft)		41			~500			272			~270	
Queue Length 95th (ft)		83			#728			350			m#275	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		416			564			1223			1245	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			1.17			0.73			1.13	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 78.9

Intersection LOS: E

Intersection Capacity Utilization 125.1%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

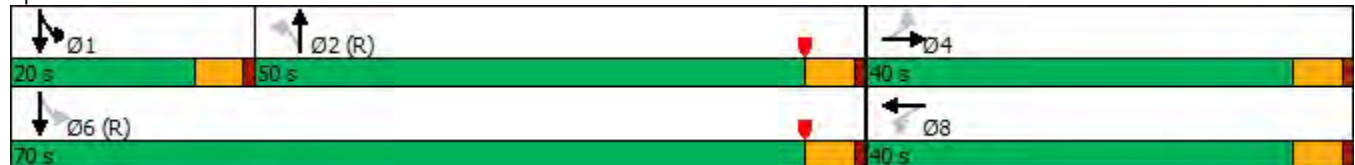
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	21	39	566	580	50
Future Vol, veh/h	24	21	39	566	580	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	25	22	41	596	611	53

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1018	332	664
Stage 1	638	-	-
Stage 2	380	-	-
Critical Hdwy	6.6	7.16	4.36
Critical Hdwy Stg 1	5.6	-	-
Critical Hdwy Stg 2	5.6	-	-
Follow-up Hdwy	4	3.73	2.33
Pot Cap-1 Maneuver	232	589	851
Stage 1	466	-	-
Stage 2	611	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	215	589	851
Mov Cap-2 Maneuver	215	-	-
Stage 1	432	-	-
Stage 2	611	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.9	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	851	-	306	-	-
HCM Lane V/C Ratio	0.048	-	0.155	-	-
HCM Control Delay (s)	9.4	0.3	18.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Intersection

Int Delay, s/veh 1.5

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 38 55 10 734 785 19

Future Vol, veh/h 38 55 10 734 785 19

Conflicting Peds, #/hr 0 0 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % -6 - - -1 -3 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 24 20 70 15 16 53

Mvmt Flow 41 59 11 789 844 20

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1272 433 865 0 - 0

Stage 1 855 - - - - -

Stage 2 417 - - - - -

Critical Hdwy 6.08 6.7 5.5 - - -

Critical Hdwy Stg 1 5.08 - - - - -

Critical Hdwy Stg 2 5.08 - - - - -

Follow-up Hdwy 3.74 3.5 2.9 - - -

Pot Cap-1 Maneuver 202 563 460 - - -

Stage 1 435 - - - - -

Stage 2 659 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 193 563 460 - - -

Mov Cap-2 Maneuver 193 - - - - -

Stage 1 416 - - - - -

Stage 2 658 - - - - -

Approach EB NB SB

HCM Control Delay, s 21.6 0.5 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 460 - 316 - -

HCM Lane V/C Ratio 0.023 - 0.316 - -

HCM Control Delay (s) 13 0.3 21.6 - -

HCM Lane LOS B A C - -

HCM 95th %tile Q(veh) 0.1 - 1.3 - -

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	34	90	619	641	83
Future Vol, veh/h	33	34	90	619	641	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	35	36	95	652	675	87
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1235	381	762	0	-	0
Stage 1	719	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Critical Hdwy	6.6	7.16	4.36	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	4	3.73	2.33	-	-	-
Pot Cap-1 Maneuver	172	548	778	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	548	778	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	345	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	28.3	2		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	778	-	224	-	-	
HCM Lane V/C Ratio	0.122	-	0.315	-	-	
HCM Control Delay (s)	10.3	0.8	28.3	-	-	
HCM Lane LOS	B	A	D	-	-	
HCM 95th %tile Q(veh)	0.4	-	1.3	-	-	

Intersection

Int Delay, s/veh 4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	94	23	802	835	27
Future Vol, veh/h	65	94	23	802	835	27
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	70	101	25	862	898	29

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1395	465	928	0	-	0
Stage 1	914	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	173	538	427	-	-	-
Stage 1	410	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	153	538	427	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	364	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.3	1.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	427	-	265	-	-
HCM Lane V/C Ratio	0.058	-	0.645	-	-
HCM Control Delay (s)	13.9	0.7	40.3	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.2	-	4.1	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	34	90	622	653	83
Future Vol, veh/h	33	34	90	622	653	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	35	36	95	655	687	87
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1249	387	774	0	-	0
Stage 1	731	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Critical Hdwy	6.6	7.16	4.36	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	4	3.73	2.33	-	-	-
Pot Cap-1 Maneuver	169	543	769	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	136	543	769	-	-	-
Mov Cap-2 Maneuver	136	-	-	-	-	-
Stage 1	340	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	29.1	2		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	769	-	219	-	-	
HCM Lane V/C Ratio	0.123	-	0.322	-	-	
HCM Control Delay (s)	10.3	0.8	29.1	-	-	
HCM Lane LOS	B	A	D	-	-	
HCM 95th %tile Q(veh)	0.4	-	1.3	-	-	

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	94	23	815	840	27
Future Vol, veh/h	65	94	23	815	840	27
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	70	101	25	876	903	29
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1407	467	933	0	-	0
Stage 1	919	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	170	537	425	-	-	-
Stage 1	408	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	150	537	425	-	-	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	41.6	1.2		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	425	-	261	-	-	
HCM Lane V/C Ratio	0.058	-	0.655	-	-	
HCM Control Delay (s)	14	0.8	41.6	-	-	
HCM Lane LOS	B	A	E	-	-	
HCM 95th %tile Q(veh)	0.2	-	4.2	-	-	

Intersection

Int Delay, s/veh 4.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 40 41 110 755 783 101

Future Vol, veh/h 40 41 110 755 783 101

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % -6 - - -1 -3 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 50 43 13 28 12 10

Mvmt Flow 42 43 116 795 824 106

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1507 465 930 0 - 0

Stage 1 877 - - - - -

Stage 2 630 - - - - -

Critical Hdwy 6.6 7.16 4.36 - - -

Critical Hdwy Stg 1 5.6 - - - - -

Critical Hdwy Stg 2 5.6 - - - - -

Follow-up Hdwy 4 3.73 2.33 - - -

Pot Cap-1 Maneuver 117 482 667 - - -

Stage 1 360 - - - - -

Stage 2 470 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 81 482 667 - - -

Mov Cap-2 Maneuver 81 - - - - -

Stage 1 248 - - - - -

Stage 2 470 - - - - -

Approach EB NB SB

HCM Control Delay, s 64.3 2.7 0

HCM LOS F

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 667 - 140 - -

HCM Lane V/C Ratio 0.174 - 0.609 - -

HCM Control Delay (s) 11.5 1.4 64.3 - -

HCM Lane LOS B A F - -

HCM 95th %tile Q(veh) 0.6 - 3.2 - -

Intersection						
Int Delay, s/veh	16.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	79	115	28	980	1020	33
Future Vol, veh/h	79	115	28	980	1020	33
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	85	124	30	1054	1097	35
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1703	567	1133	0	-	0
Stage 1	1116	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	116	466	335	-	-	-
Stage 1	337	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	91	466	335	-	-	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	264	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	185.2	2.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	335	-	174	-	-	
HCM Lane V/C Ratio	0.09	-	1.199	-	-	
HCM Control Delay (s)	16.8	1.7	185.2	-	-	
HCM Lane LOS	C	A	F	-	-	
HCM 95th %tile Q(veh)	0.3	-	11.3	-	-	

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	41	110	758	795	101
Future Vol, veh/h	40	41	110	758	795	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	42	43	116	798	837	106
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1521	472	943	0	-	0
Stage 1	890	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Critical Hdwy	6.6	7.16	4.36	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	4	3.73	2.33	-	-	-
Pot Cap-1 Maneuver	115	477	659	-	-	-
Stage 1	355	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	79	477	659	-	-	-
Mov Cap-2 Maneuver	79	-	-	-	-	-
Stage 1	243	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	67.1	2.7		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	659	-	137	-	-	
HCM Lane V/C Ratio	0.176	-	0.622	-	-	
HCM Control Delay (s)	11.6	1.4	67.1	-	-	
HCM Lane LOS	B	A	F	-	-	
HCM 95th %tile Q(veh)	0.6	-	3.3	-	-	

Intersection

Int Delay, s/veh 17.5

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 79 115 28 993 1025 33

Future Vol, veh/h 79 115 28 993 1025 33

Conflicting Peds, #/hr 0 0 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % -6 - - -1 -3 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 24 20 70 15 16 53

Mvmt Flow 85 124 30 1068 1102 35

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1715 570 1138 0 - 0

Stage 1 1121 - - - - -

Stage 2 594 - - - - -

Critical Hdwy 6.08 6.7 5.5 - - -

Critical Hdwy Stg 1 5.08 - - - - -

Critical Hdwy Stg 2 5.08 - - - - -

Follow-up Hdwy 3.74 3.5 2.9 - - -

Pot Cap-1 Maneuver 114 464 333 - - -

Stage 1 335 - - - - -

Stage 2 558 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 89 464 333 - - -

Mov Cap-2 Maneuver 89 - - - - -

Stage 1 261 - - - - -

Stage 2 557 - - - - -

Approach EB NB SB

HCM Control Delay, s 193.9 2.2 0

HCM LOS F

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 333 - 171 - -

HCM Lane V/C Ratio 0.09 - 1.22 - -

HCM Control Delay (s) 16.9 1.8 193.9 - -

HCM Lane LOS C A F - -

HCM 95th %tile Q(veh) 0.3 - 11.5 - -

Intersection

Int Delay, s/veh 0

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 0 4 0 712 675 12

Future Vol, veh/h 0 4 0 712 675 12

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length - 0 - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 4 2 -

Peak Hour Factor 94 94 94 94 94 94

Heavy Vehicles, % 0 0 0 17 14 17

Mvmt Flow 0 4 0 757 718 13

Major/Minor Minor2 Major1 Major2

Conflicting Flow All - 366 - 0 - 0

Stage 1 - - - - - -

Stage 2 - - - - - -

Critical Hdwy - 6.9 - - - -

Critical Hdwy Stg 1 - - - - - -

Critical Hdwy Stg 2 - - - - - -

Follow-up Hdwy - 3.3 - - - -

Pot Cap-1 Maneuver 0 637 0 - - -

Stage 1 0 - 0 - - -

Stage 2 0 - 0 - - -

Platoon blocked, % - - - - - -

Mov Cap-1 Maneuver - 637 - - - -

Mov Cap-2 Maneuver - - - - - -

Stage 1 - - - - - -

Stage 2 - - - - - -

Approach EB NB SB

HCM Control Delay, s 10.7 0 0

HCM LOS B

Minor Lane/Major Mvmt NBT EBLn1 SBT SBR

Capacity (veh/h) - 637 - -

HCM Lane V/C Ratio - 0.007 - -

HCM Control Delay (s) - 10.7 - -

HCM Lane LOS - B - -

HCM 95th %tile Q(veh) - 0 - -

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗↗	↗↗	
Traffic Vol, veh/h	0	13	0	838	929	5
Future Vol, veh/h	0	13	0	838	929	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	10	6	20
Mvmt Flow	0	14	0	873	968	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	487	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	532	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	532	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.9	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 532		-	-		
HCM Lane V/C Ratio	- 0.025		-	-		
HCM Control Delay (s)	- 11.9		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.1		-	-		

Intersection

Int Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	868	824	12
Future Vol, veh/h	0	4	0	868	824	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	17	14	17
Mvmt Flow	0	4	0	923	877	13

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	445	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	566	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	566	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	566	-	-
HCM Lane V/C Ratio	-	0.008	-	-
HCM Control Delay (s)	-	11.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	1021	1135	5
Future Vol, veh/h	0	13	0	1021	1135	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	10	6	20
Mvmt Flow	0	14	0	1064	1182	5

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	594	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	453	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	453	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	453	-	-
HCM Lane V/C Ratio	-	0.03	-	-
HCM Control Delay (s)	-	13.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	223	236	20	5	1
Future Vol, veh/h	3	223	236	20	5	1
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, %	-	-8	6	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	16	12	0	0	0
Mvmt Flow	3	242	257	22	5	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	279	0	-	0	516	268
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	248	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1295	-	-	-	523	776
Stage 1	-	-	-	-	782	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1295	-	-	-	521	776
Mov Cap-2 Maneuver	-	-	-	-	521	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		11.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1295	-	-	-	551	
HCM Lane V/C Ratio	0.003	-	-	-	0.012	
HCM Control Delay (s)	7.8	0	-	-	11.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	182	249	7	19	3
Future Vol, veh/h	1	182	249	7	19	3
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, %	-	-8	6	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	11	3	0	11	0
Mvmt Flow	1	212	290	8	22	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	298	0	-	0	508	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	4.1	-	-	-	6.51	6.2
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	2.2	-	-	-	3.599	3.3
Pot Cap-1 Maneuver	1275	-	-	-	509	750
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	508	750
Mov Cap-2 Maneuver	-	-	-	-	508	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	801	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		12.1		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1275	-	-	-	531	
HCM Lane V/C Ratio	0.001	-	-	-	0.048	
HCM Control Delay (s)	7.8	0	-	-	12.1	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	272	288	20	5	1
Future Vol, veh/h	3	272	288	20	5	1
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, %	-	-8	6	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	16	12	0	0	0
Mvmt Flow	3	296	313	22	5	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	335	0	0 626 324
Stage 1	-	-	- 324 -
Stage 2	-	-	- 302 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	1236	-	- 451 722
Stage 1	-	-	- 738 -
Stage 2	-	-	- 755 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1236	-	- 450 722
Mov Cap-2 Maneuver	-	-	- 450 -
Stage 1	-	-	- 736 -
Stage 2	-	-	- 755 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1236	-	-	-	480
HCM Lane V/C Ratio	0.003	-	-	-	0.014
HCM Control Delay (s)	7.9	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection

Int Delay, s/veh 0.5

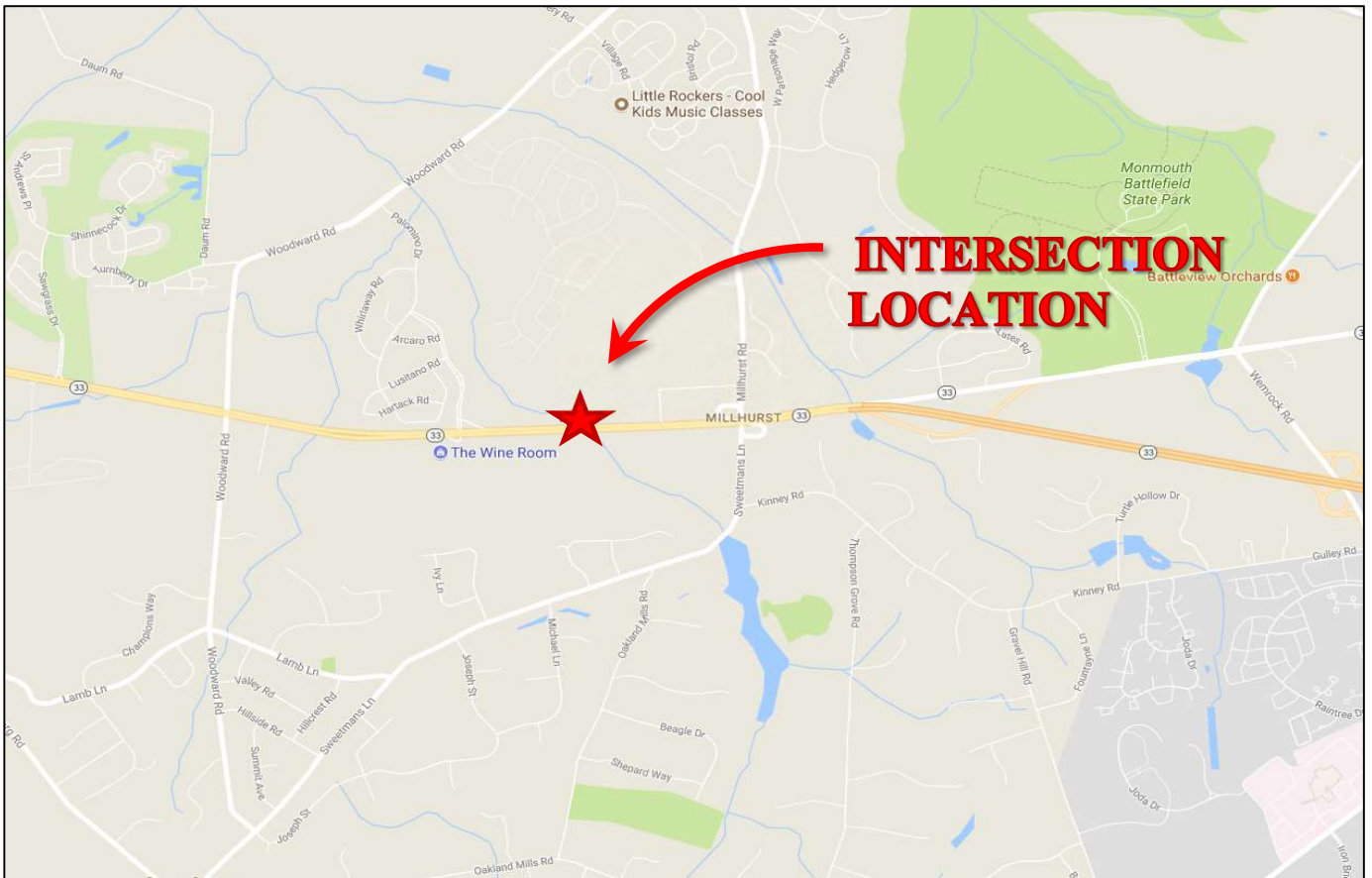
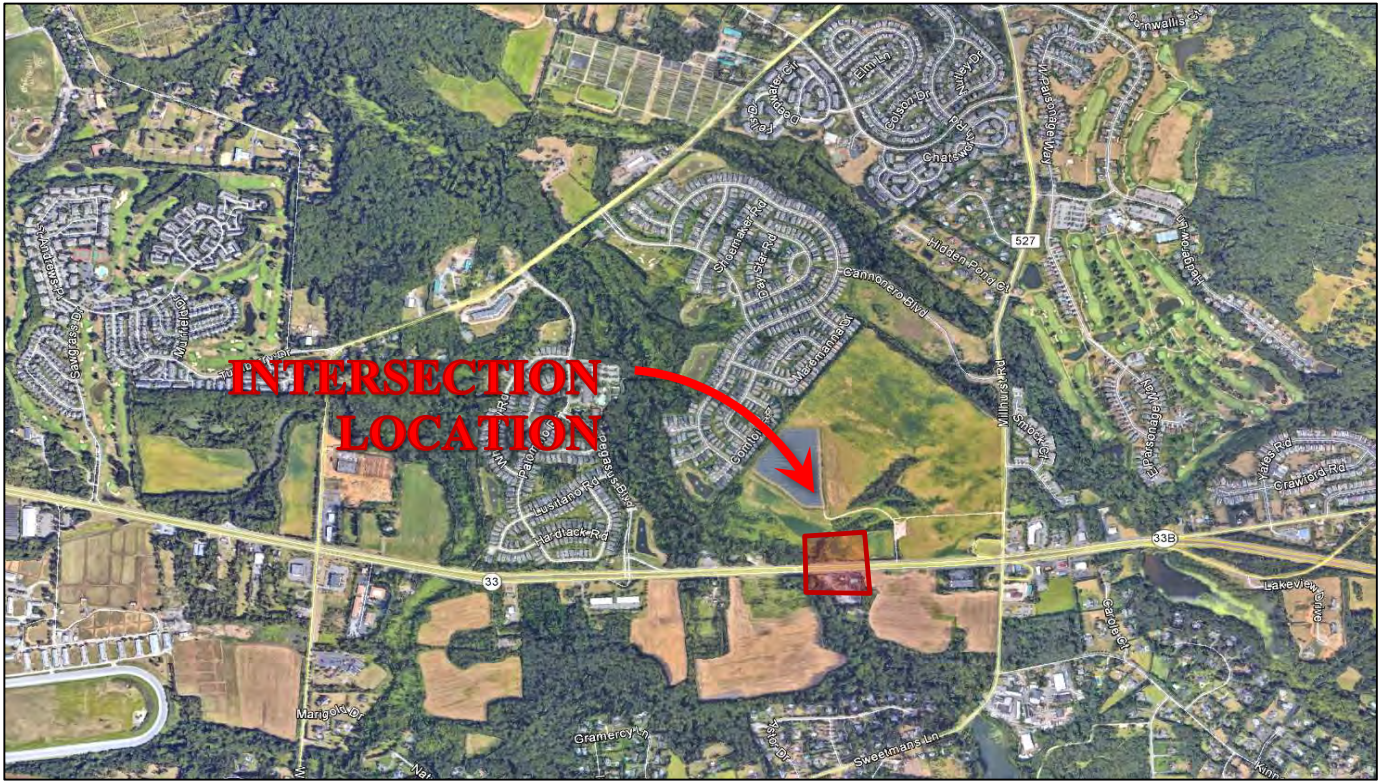
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	222	304	7	19	3
Future Vol, veh/h	1	222	304	7	19	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-8	6	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	11	3	0	11	0
Mvmt Flow	1	258	353	8	22	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	361	0	0 617 357
Stage 1	-	-	- 357 -
Stage 2	-	-	- 260 -
Critical Hdwy	4.1	-	- 6.51 6.2
Critical Hdwy Stg 1	-	-	- 5.51 -
Critical Hdwy Stg 2	-	-	- 5.51 -
Follow-up Hdwy	2.2	-	- 3.599 3.3
Pot Cap-1 Maneuver	1209	-	- 439 692
Stage 1	-	-	- 689 -
Stage 2	-	-	- 763 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1209	-	- 439 692
Mov Cap-2 Maneuver	-	-	- 439 -
Stage 1	-	-	- 688 -
Stage 2	-	-	- 763 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.2
HCM LOS			B

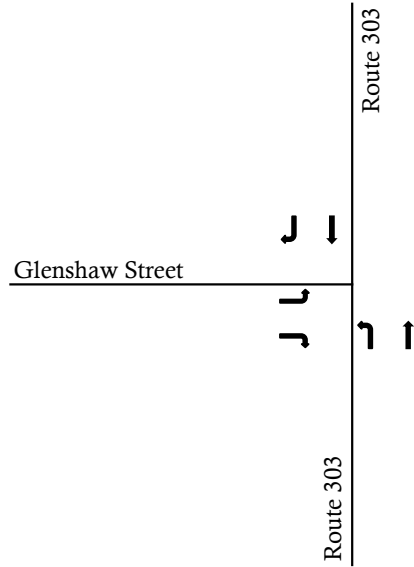
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1209	-	-	-	462
HCM Lane V/C Ratio	0.001	-	-	-	0.055
HCM Control Delay (s)	8	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Appendix D
Traffic Signal Warrant Analysis



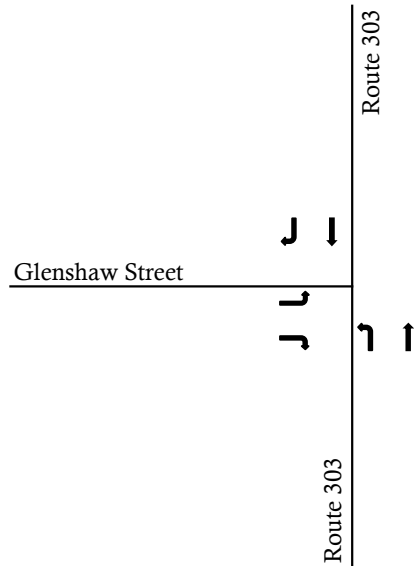
Route 303 & Glenshaw Street
Signal Warrant Analysis
2686-99-013T

Intersection Location Map



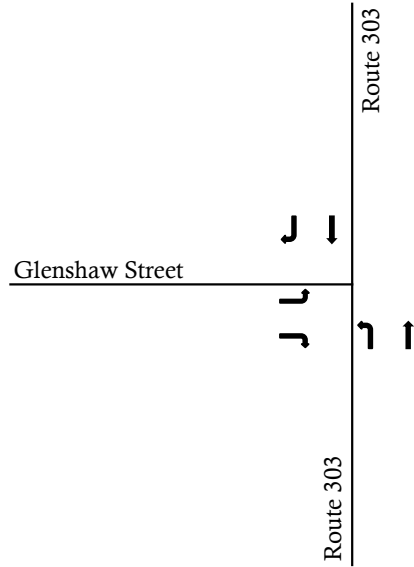
	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	8	0	8	37	478	0	0	465	38
9:00 AM	23	0	22	43	479	0	0	561	43
5:00 PM	30	0	32	9	696	0	0	652	18
6:00 PM	32	0	74	9	573	0	0	714	6





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	8	0	8	38	488	0	0	474	39
9:00 AM	23	0	22	44	489	0	0	572	44
5:00 PM	31	0	33	9	710	0	0	665	18
6:00 PM	33	0	75	9	584	0	0	728	6





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	10	0	10	46	595	0	0	578	48
9:00 AM	28	0	27	54	597	0	0	698	54
5:00 PM	38	0	40	11	866	0	0	811	22
6:00 PM	40	0	92	11	713	0	0	888	7



Trip Generation

Land Use	Trip Type	Trips		
		In	Out	Total
175,760 SF Warehouse	Cars	116	115	231

	Temp. Dist	Total Trips	In-Out %		Car Trips	
	Total		In	Out	In	Out
Weekday						
8:00 AM	3.9%	9	87.3%	12.7%	8	1
9:00 AM	7.2%	17	71.9%	28.1%	12	5
5:00 PM	5.0%	12	13.2%	86.8%	2	10
6:00 PM	5.7%	13	20.3%	79.7%	3	10



Route 303 & Glenshaw Street
Signal Warrant Analysis
2686-99-013T

Figure 5

Temporal Distribution (Cars)

Trip Distribution

		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Cars	IN	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%
	OUT	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%

		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday										
8:00 AM		0	0	0	0	0	0	0	2	0
9:00 AM		0	0	0	0	1	0	0	4	0
5:00 PM		0	0	0	0	3	0	0	1	0
6:00 PM		0	0	0	0	3	0	0	1	0



Trip Generation

Land Use	Trip Type	Trips		
		In	Out	Total
175,760 SF Warehouse	Trucks	43	42	85

	Temp. Dist	Total Trips	In-Out %		Truck Trips	
	Total		In	Out	In	Out
Weekday						
8:00 AM	5.5%	5	34.4%	65.6%	2	3
9:00 AM	9.9%	8	49.2%	50.8%	4	4
5:00 PM	3.9%	3	36.6%	63.4%	1	2
6:00 PM	0.0%	0	50.0%	50.0%	0	0



Route 303 & Glenshaw Street
Signal Warrant Analysis
2686-99-013T

Figure 7

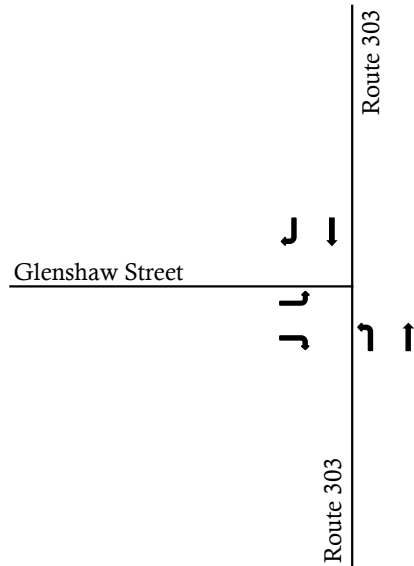
Temporal Distribution (Trucks)

Trip Distribution

		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Trucks	IN	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
	OUT	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%

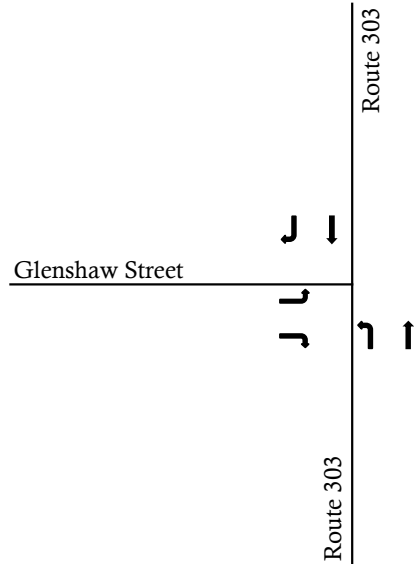
		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday										
8:00 AM		0	0	0	0	3	0	0	2	0
9:00 AM		0	0	0	0	4	0	0	4	0
5:00 PM		0	0	0	0	2	0	0	1	0
6:00 PM		0	0	0	0	0	0	0	0	0





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	0	0	0	0	3	0	0	4	0
9:00 AM	0	0	0	0	5	0	0	8	0
5:00 PM	0	0	0	0	5	0	0	2	0
6:00 PM	0	0	0	0	3	0	0	1	0





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	10	0	10	46	598	0	0	582	48
9:00 AM	28	0	27	54	602	0	0	706	54
5:00 PM	38	0	40	11	871	0	0	813	22
6:00 PM	40	0	92	11	716	0	0	889	7



Traffic Signal Warrant Analysis

Intersection: Route 303 & Glenshaw Street
 Location: Orangetown Town, Rockland County, NJ
 Prepared By: A. Ferrante
 Date: 10/3/2022
 Job #: 2686-99-013T



Time	Weekday Volumes			
	Major Road		Minor Road	
	NB	SB	EB	O
12:00 AM	0	0	0	0
1:00 AM	0	0	0	0
2:00 AM	0	0	0	0
3:00 AM	0	0	0	0
4:00 AM	0	0	0	0
5:00 AM	0	0	0	0
6:00 AM	0	0	0	0
7:00 AM	0	0	0	0
8:00 AM	644	630	20	0
9:00 AM	656	760	55	0
10:00 AM	0	0	0	0
11:00 AM	0	0	0	0
12:00 PM	0	0	0	0
1:00 PM	0	0	0	0
2:00 PM	0	0	0	0
3:00 PM	0	0	0	0
4:00 PM	0	0	0	0
5:00 PM	882	835	78	0
6:00 PM	727	896	132	0
7:00 PM	0	0	0	0
8:00 PM	0	0	0	0
9:00 PM	0	0	0	0
10:00 PM	0	0	0	0
11:00 PM	0	0	0	0
Lanes	2	2	1	0
Speed	40	40	30	0

Warrant % Criteria	Warrant Summary			
	1A	1B	2	3
	100	100	100	100
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	YES	NO	NO
	NO	YES	YES	YES
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
Hours Met	0	2	1	1
Satisfied?	NO	NO	NO	YES

Based upon the Traffic Signal Warrants described in Chapter 4C of the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition, published by the Federal Highway Administration (FHWA).

Traffic Signal Warrant Analysis

Intersection: Route 303 & Glenshaw Street
 Location: Orangetown Town, Rockland County, NJ
 Prepared By: J. Pesce
 Date: 10/3/2022
 Job #: 2686-99-013T



Warrant 1, Eight-Hour Vehicular Volume (Conditions A and B)

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

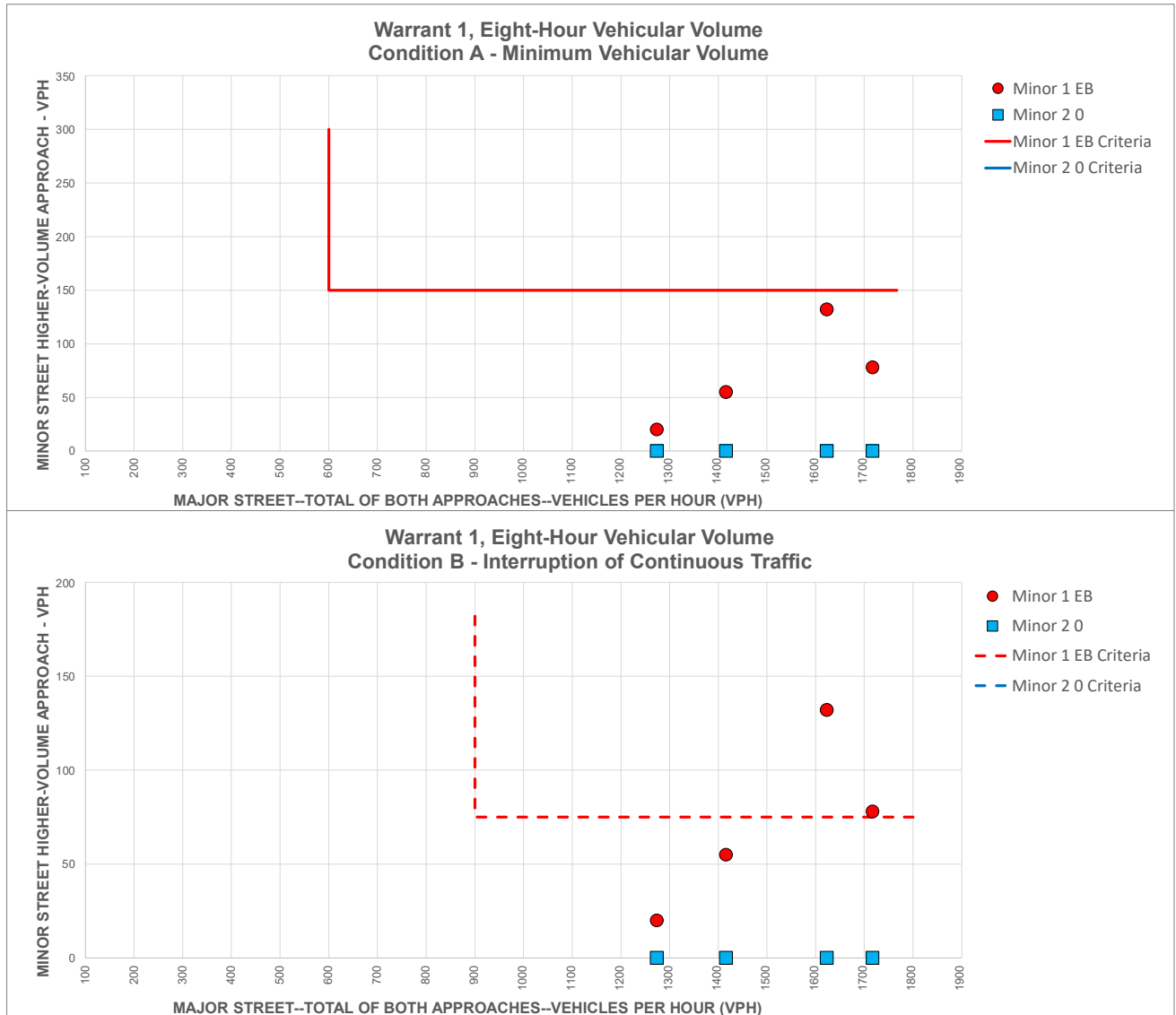
^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Volumes				Condition A Criteria						WARRANT SATISFIED ?	Condition B Criteria						WARRANT SATISFIED ?
Time	Major TOTAL	Minor EB	Minor O	Major	Minor 1	Satisfied?	Major	Minor 2	Satisfied?		Major	Minor 1	Satisfied?	Major	Minor 2	Satisfied?	
12:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
1:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
2:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
3:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
4:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
5:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
6:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
7:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
8:00 AM	1274	20	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
9:00 AM	1416	55	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
10:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
11:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
12:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
1:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
2:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
3:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
4:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
5:00 PM	1717	78	0	600	150	No	-	-	No	NO	900	75	Yes	-	-	No	YES
6:00 PM	1623	132	0	600	150	No	-	-	No	NO	900	75	Yes	-	-	No	YES
7:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
8:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
9:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
10:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
11:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
Lanes	2	1	0	Hours Met						0	Hours Met						2
Speed	40	30	0	Satisfied?						NO	Satisfied?						NO

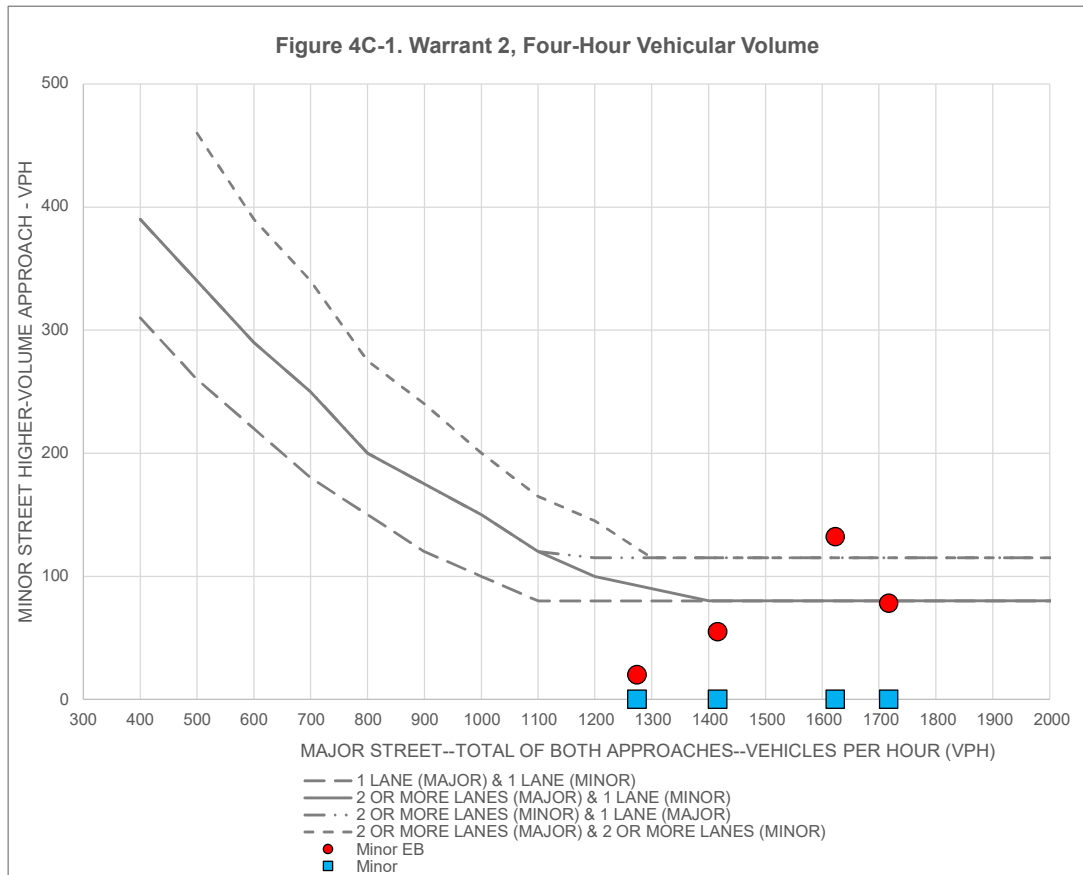
Warrant 1, Eight-Hour Vehicular Volume
(Conditions A and B)



Warrant 2 - Four-Hour Vehicular Volume

(100% Thresholds)

Time	Volumes							WARRANT SATISFIED?
	Major (Total)	Minor EB	Threshold	Satisfied?	Minor	Threshold	Satisfied?	
12:00 AM	0	0	-	No	0	-	No	NO
1:00 AM	0	0	-	No	0	-	No	NO
2:00 AM	0	0	-	No	0	-	No	NO
3:00 AM	0	0	-	No	0	-	No	NO
4:00 AM	0	0	-	No	0	-	No	NO
5:00 AM	0	0	-	No	0	-	No	NO
6:00 AM	0	0	-	No	0	-	No	NO
7:00 AM	0	0	-	No	0	-	No	NO
8:00 AM	1274	20	93	No	0	93	No	NO
9:00 AM	1416	55	80	No	0	80	No	NO
10:00 AM	0	0	-	No	0	-	No	NO
11:00 AM	0	0	-	No	0	-	No	NO
12:00 PM	0	0	-	No	0	-	No	NO
1:00 PM	0	0	-	No	0	-	No	NO
2:00 PM	0	0	-	No	0	-	No	NO
3:00 PM	0	0	-	No	0	-	No	NO
4:00 PM	0	0	-	No	0	-	No	NO
5:00 PM	1717	78	80	No	0	80	No	NO
6:00 PM	1623	132	80	Yes	0	80	No	YES
7:00 PM	0	0	-	No	0	-	No	NO
8:00 PM	0	0	-	No	0	-	No	NO
9:00 PM	0	0	-	No	0	-	No	NO
10:00 PM	0	0	-	No	0	-	No	NO
11:00 PM	0	0	-	No	0	-	No	NO
Lanes	2	1			0			1
Speed	40	30			0		Satisfied?	No

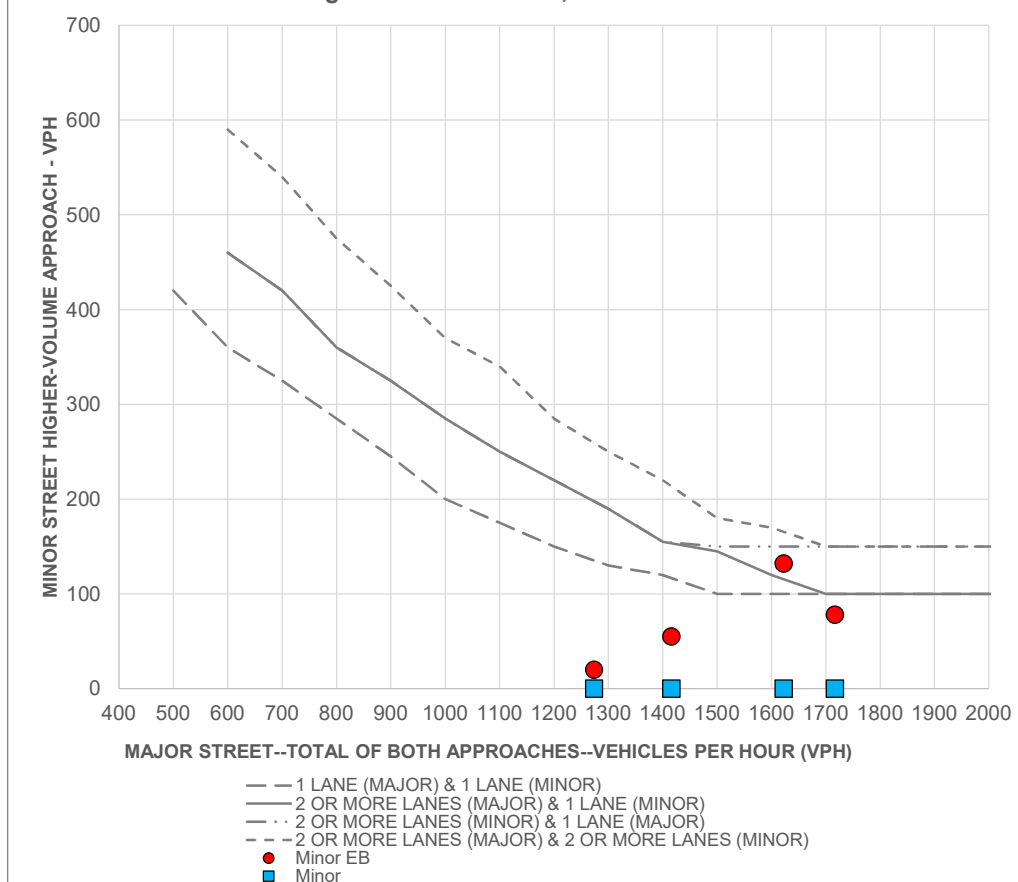


Warrant 3 - Peak Hour Vehicular Volume

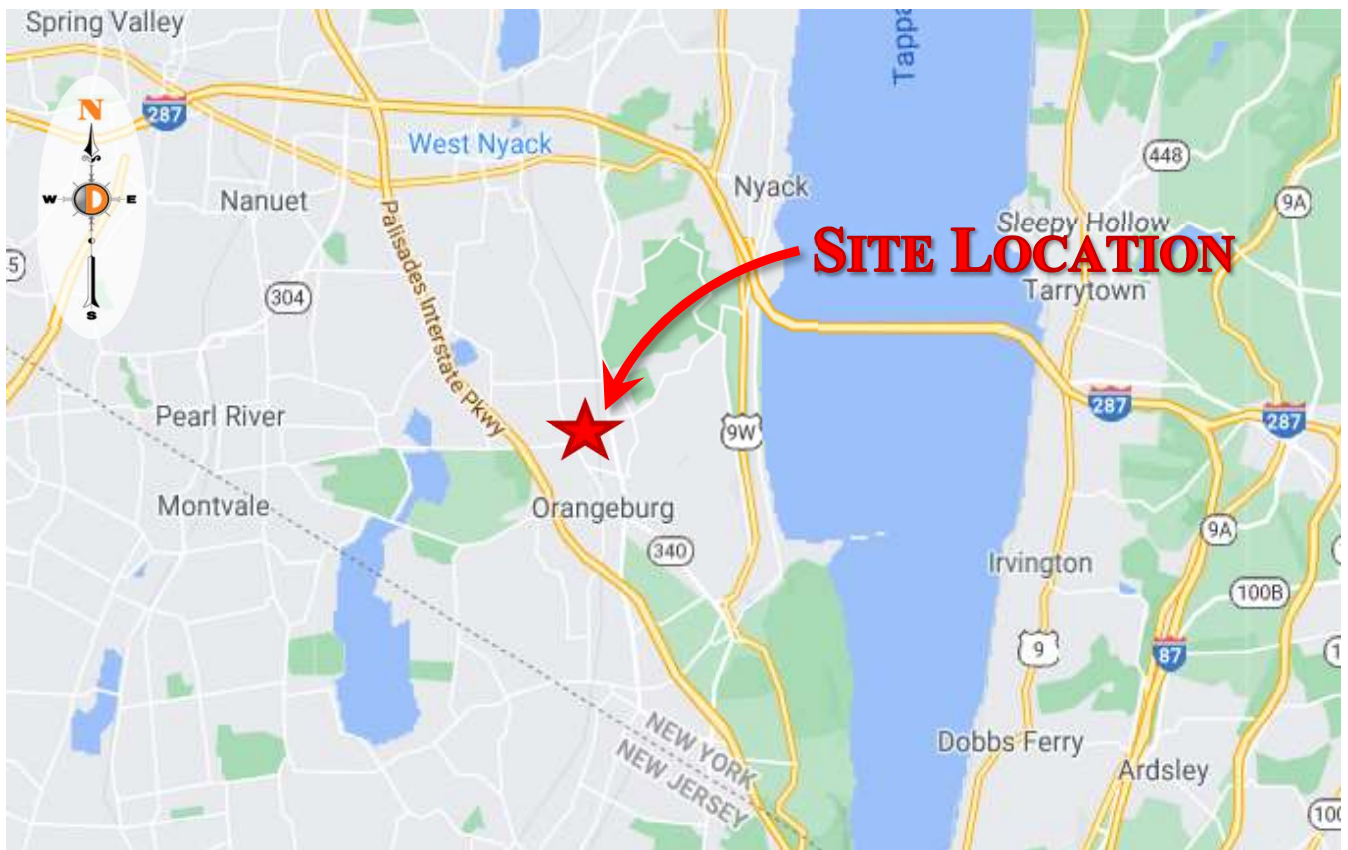
(100% Thresholds)

Time	Volumes							WARRANT SATISFIED ?
	Major (Total)	Minor EB	Threshold	Satisfied?	Minor	Threshold	Satisfied?	
12:00 AM	0	0	-	No	0	-	No	NO
1:00 AM	0	0	-	No	0	-	No	NO
2:00 AM	0	0	-	No	0	-	No	NO
3:00 AM	0	0	-	No	0	-	No	NO
4:00 AM	0	0	-	No	0	-	No	NO
5:00 AM	0	0	-	No	0	-	No	NO
6:00 AM	0	0	-	No	0	-	No	NO
7:00 AM	0	0	-	No	0	-	No	NO
8:00 AM	1274	20	198	No	0	198	No	NO
9:00 AM	1416	55	153	No	0	153	No	NO
10:00 AM	0	0	-	No	0	-	No	NO
11:00 AM	0	0	-	No	0	-	No	NO
12:00 PM	0	0	-	No	0	-	No	NO
1:00 PM	0	0	-	No	0	-	No	NO
2:00 PM	0	0	-	No	0	-	No	NO
3:00 PM	0	0	-	No	0	-	No	NO
4:00 PM	0	0	-	No	0	-	No	NO
5:00 PM	1717	78	100	No	0	100	No	NO
6:00 PM	1623	132	115	Yes	0	115	No	YES
7:00 PM	0	0	-	No	0	-	No	NO
8:00 PM	0	0	-	No	0	-	No	NO
9:00 PM	0	0	-	No	0	-	No	NO
10:00 PM	0	0	-	No	0	-	No	NO
11:00 PM	0	0	-	No	0	-	No	NO
Lanes	2	1			0			1
Speed	40	30			0		Satisfied?	Yes

Figure 4C-3. Warrant 3, Peak Hour



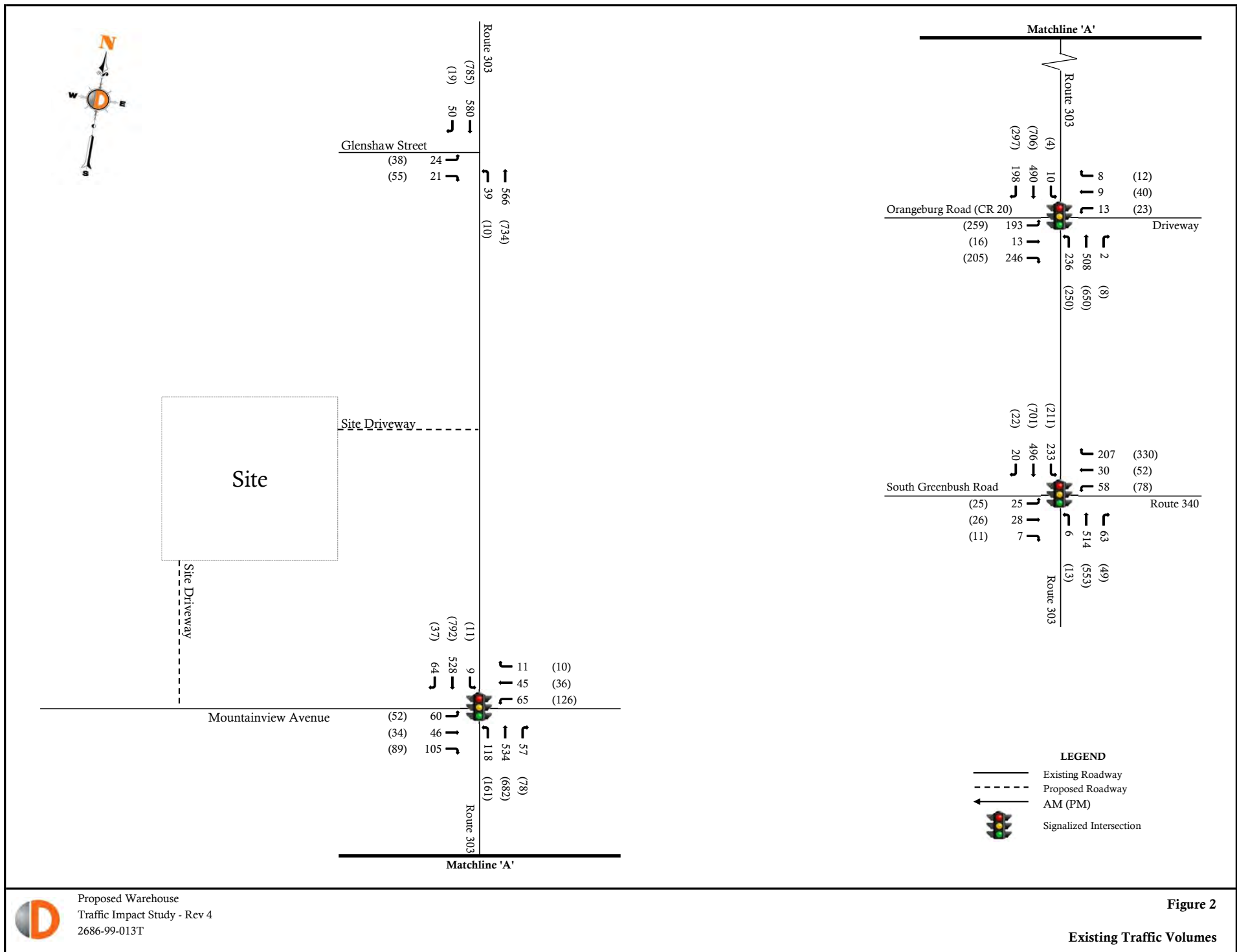
Appendix E
Alternate Traffic Volume Figures

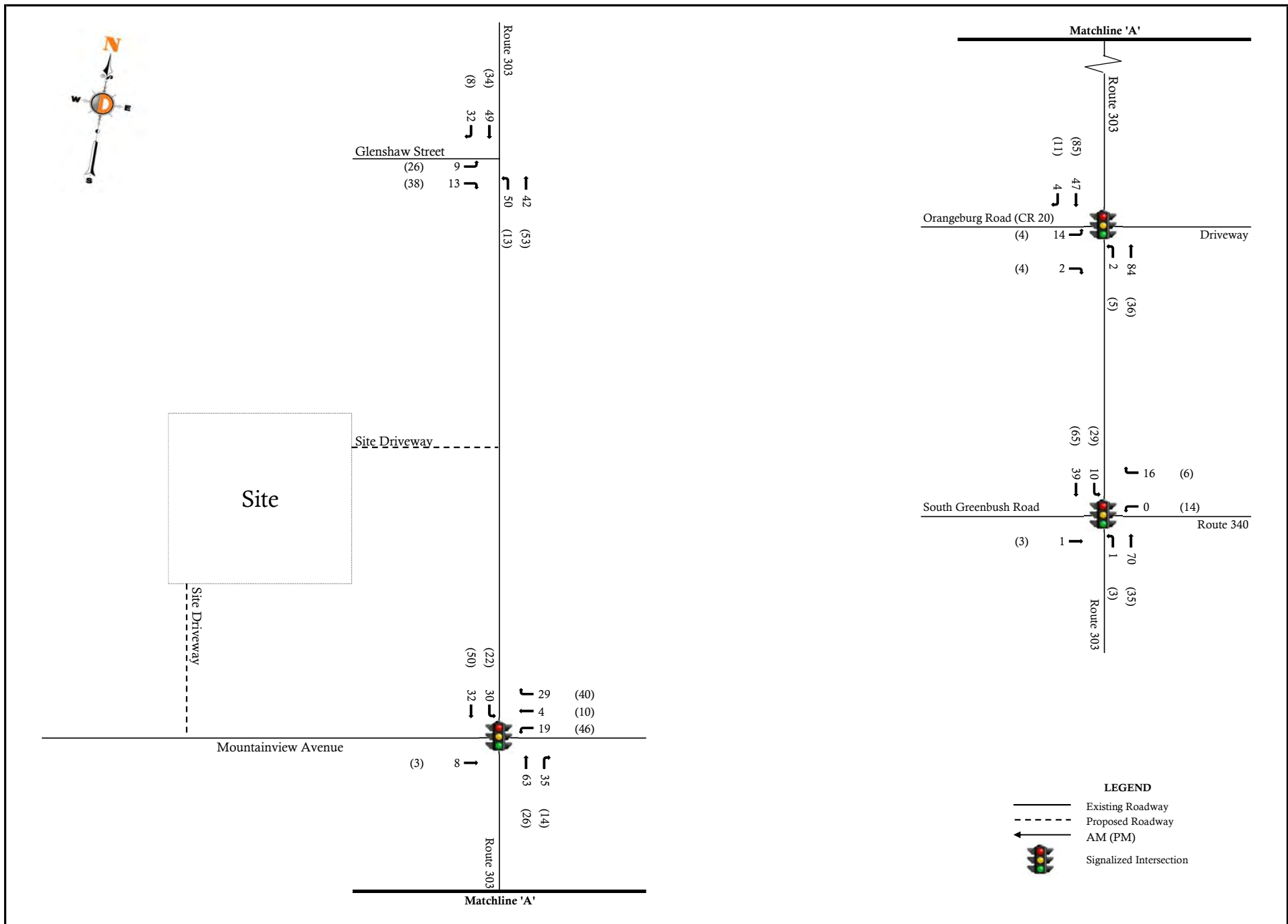


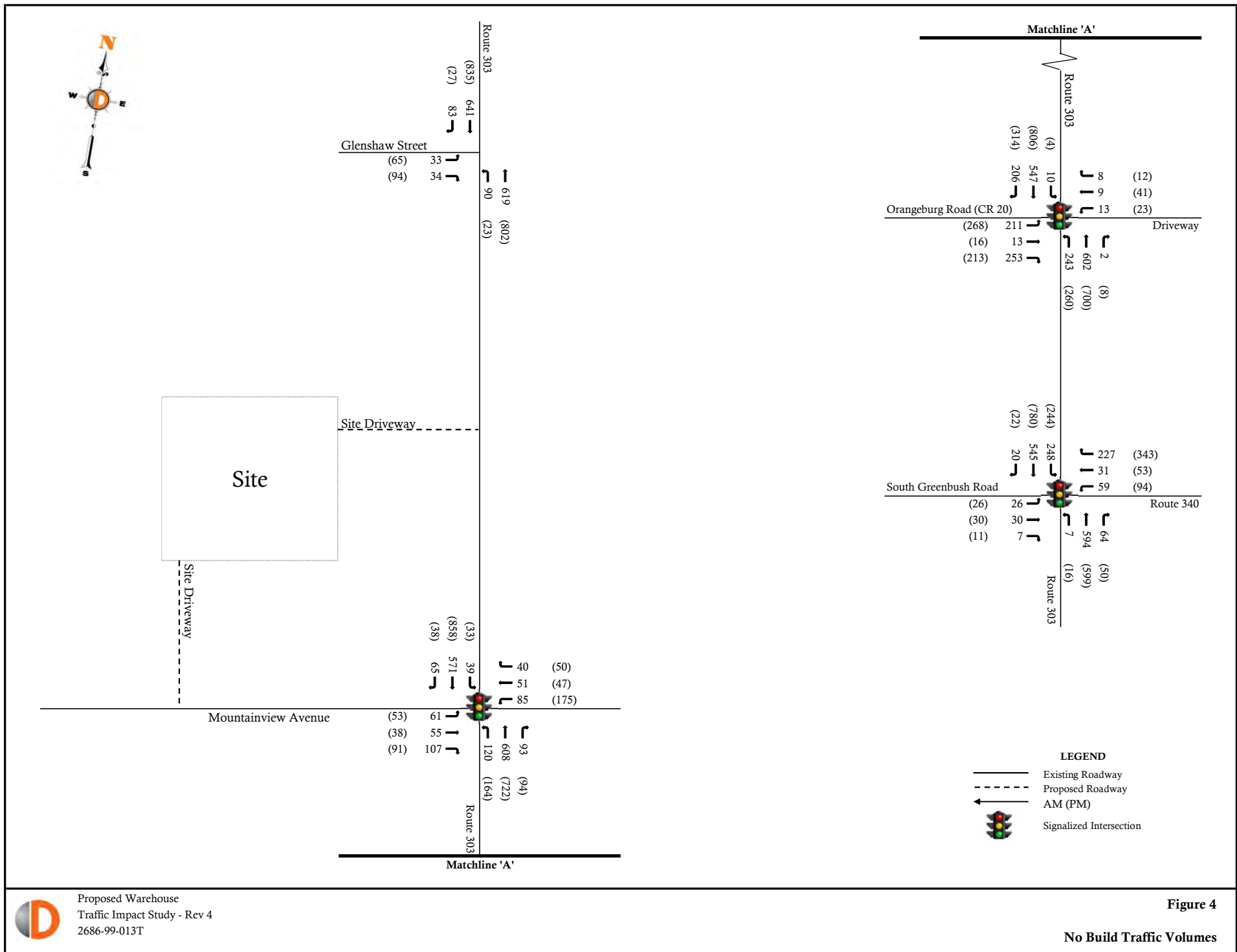
Proposed Warehouse
Traffic Impact Study - Rev 4
2686-99-013T

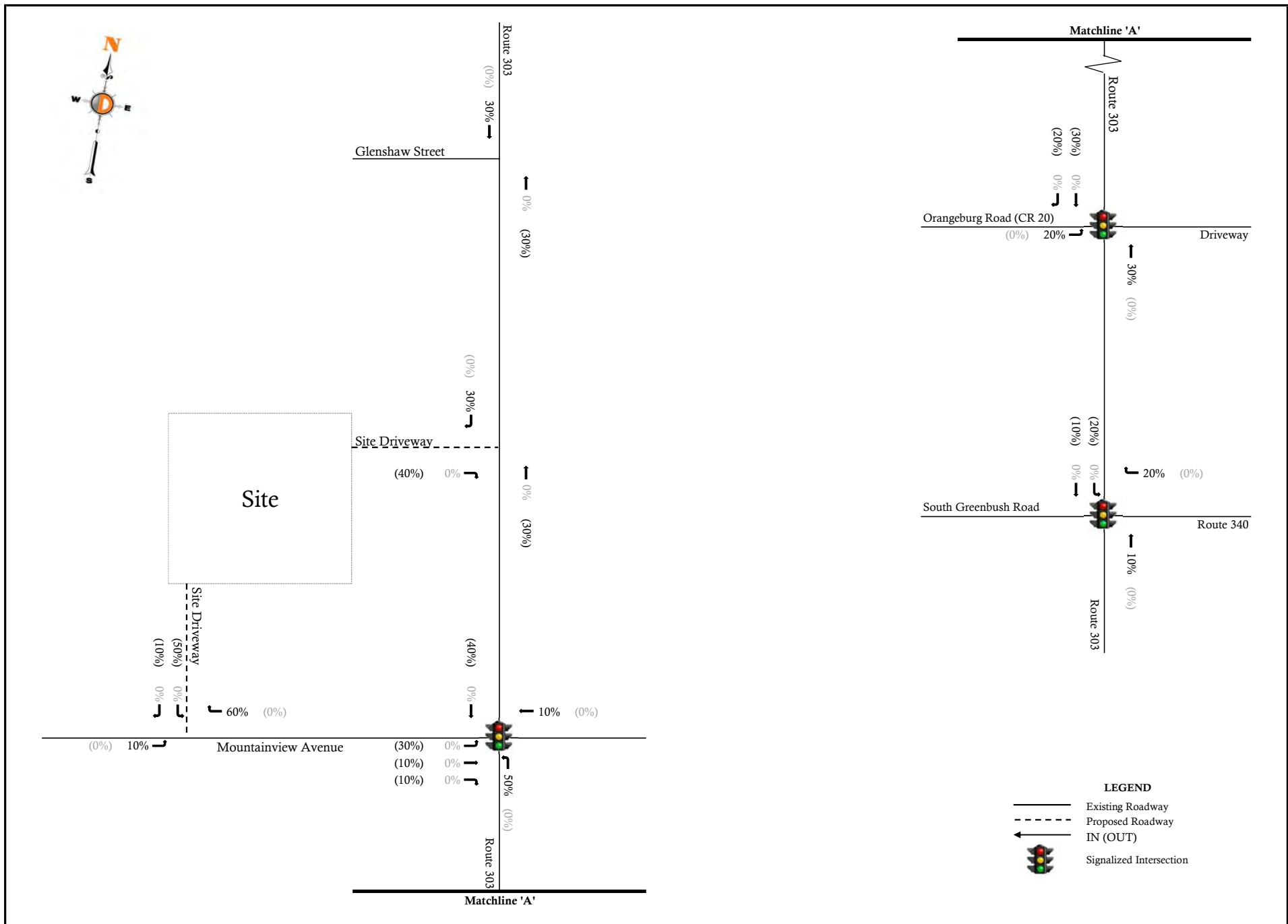
Figure 1

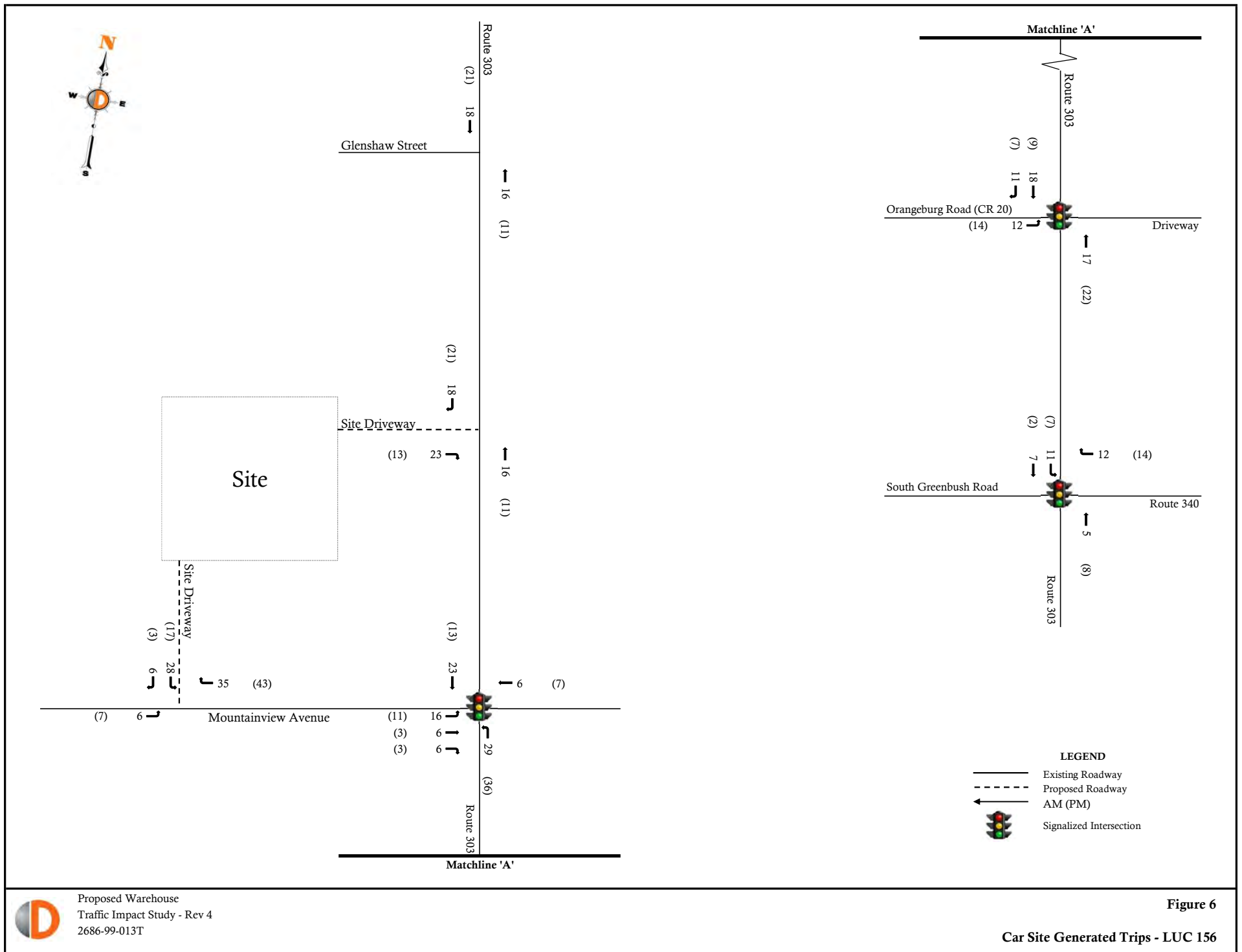
Site Location Map

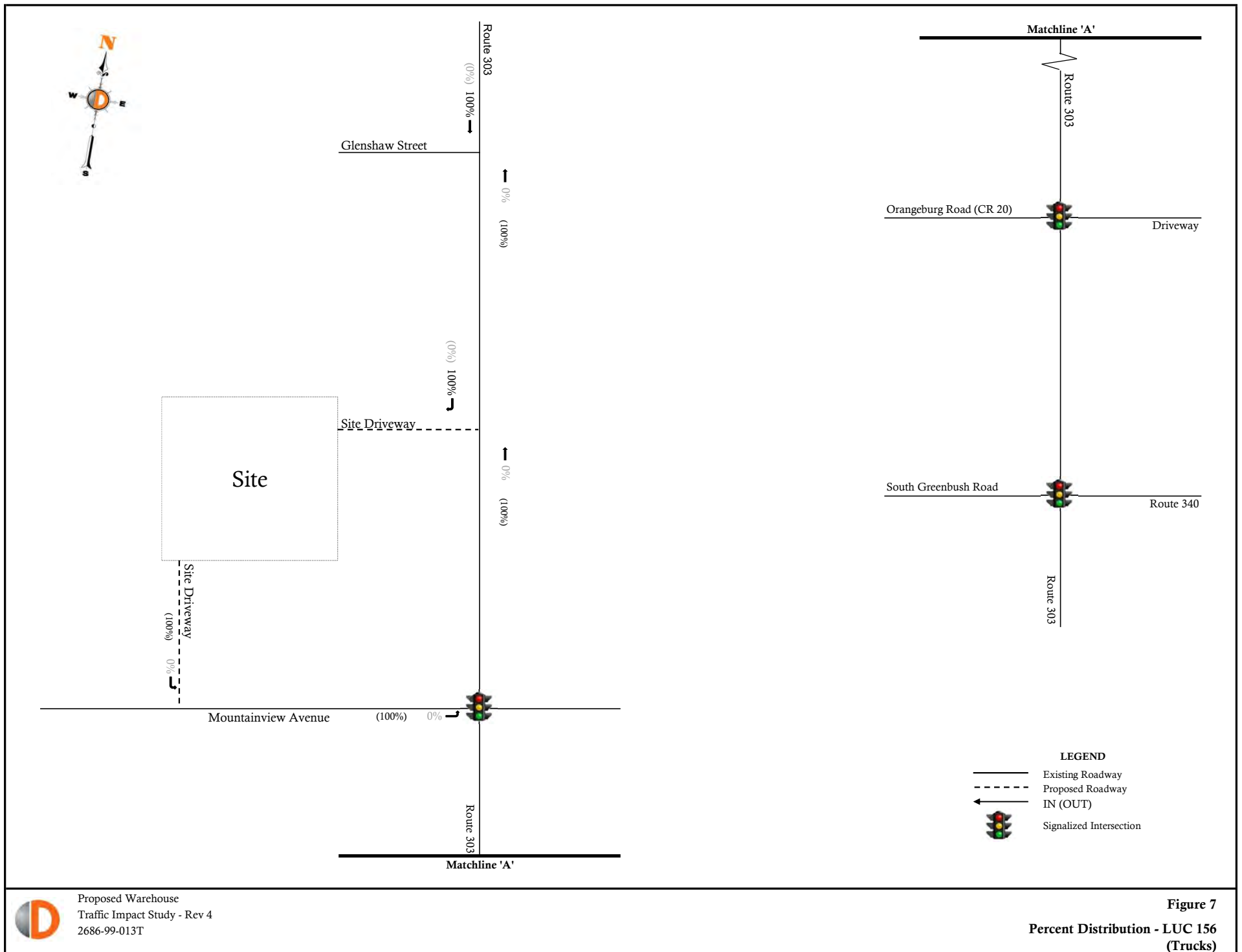


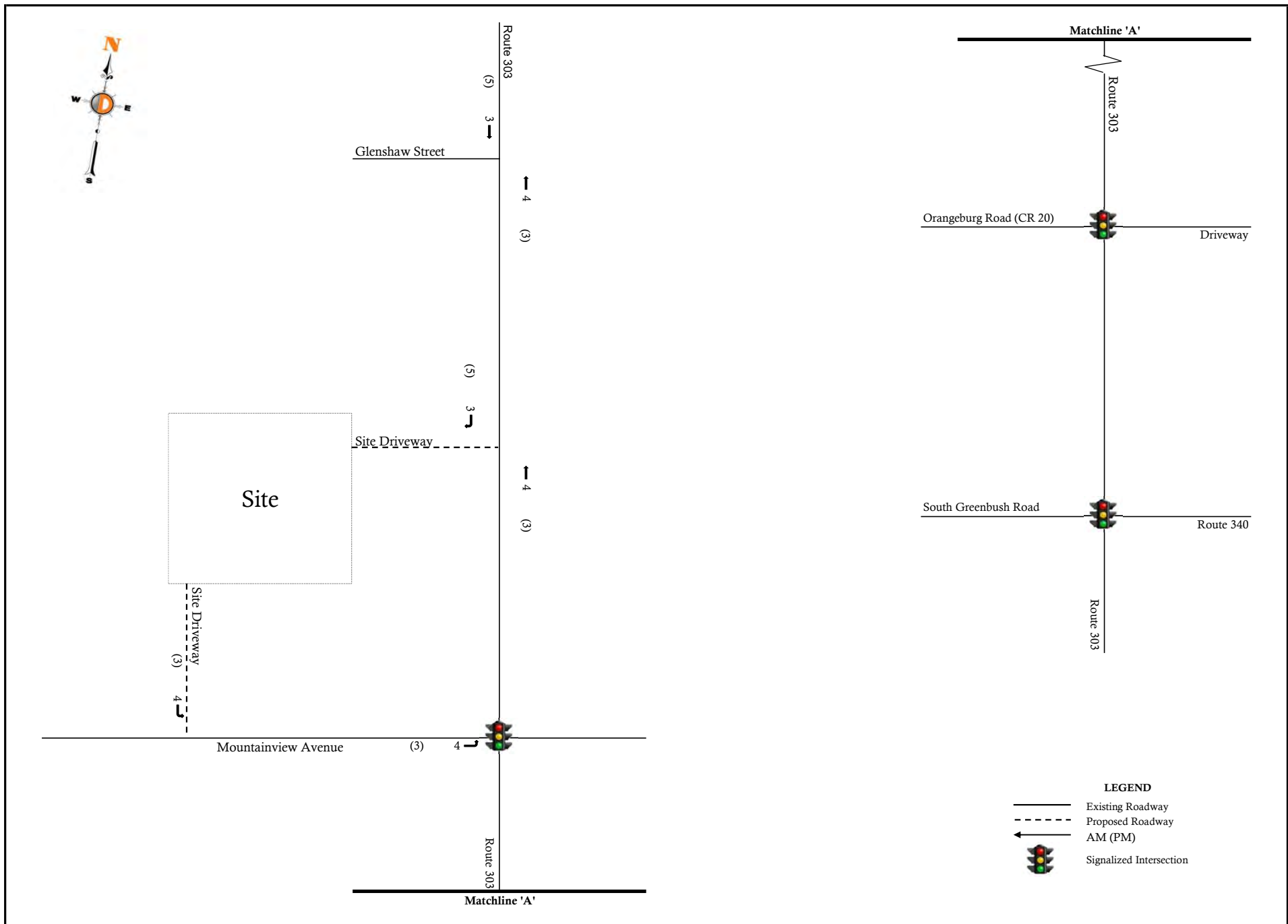




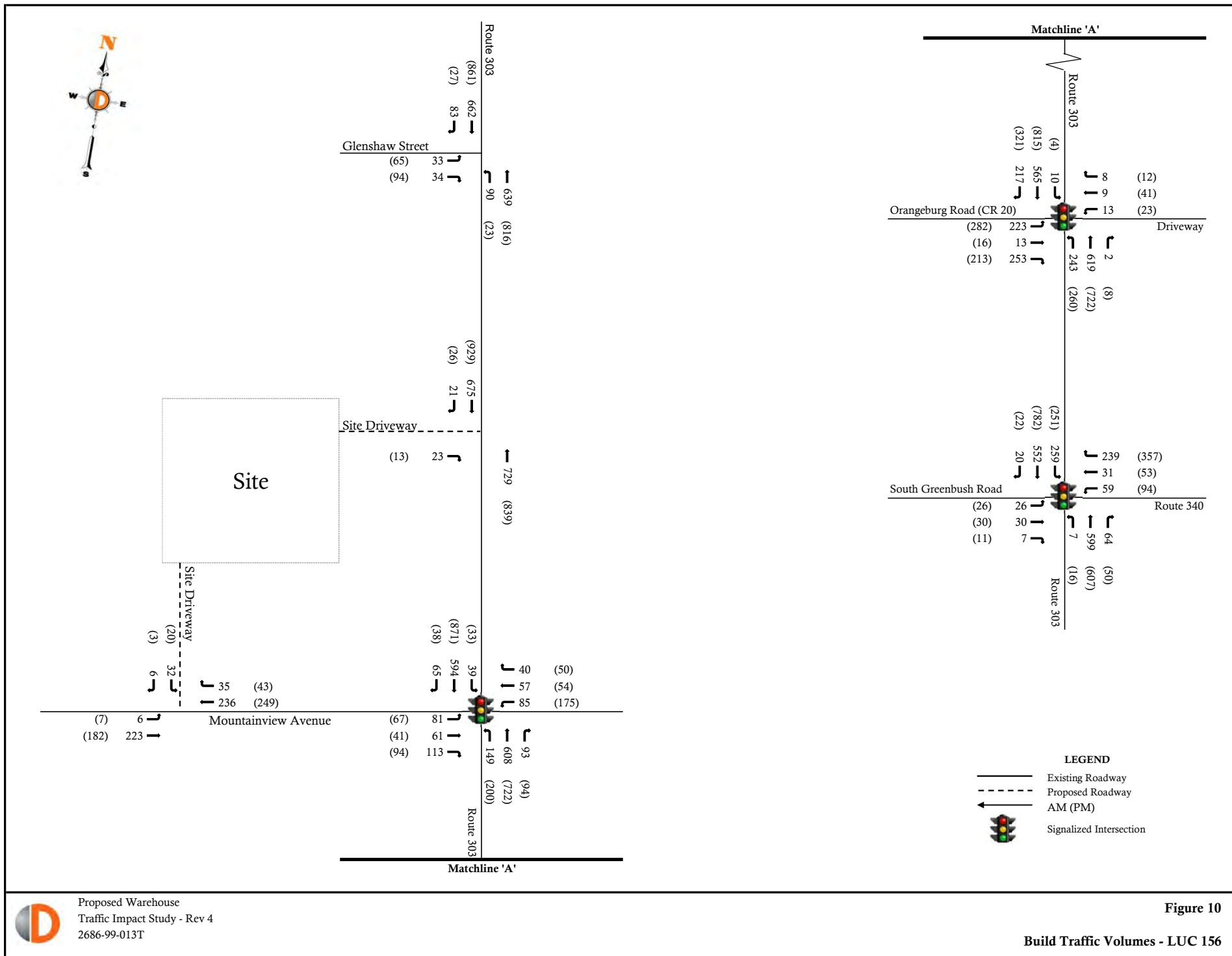


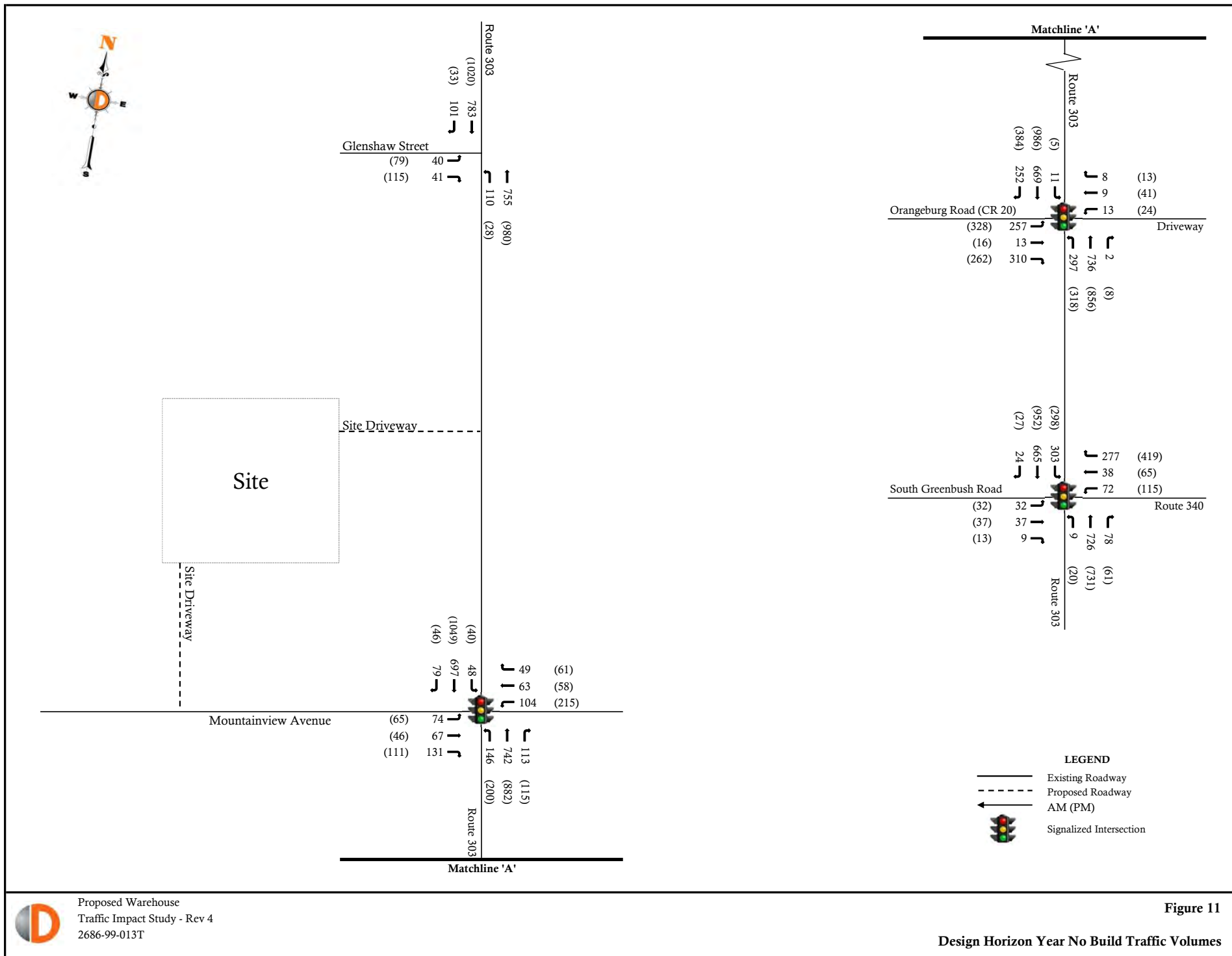


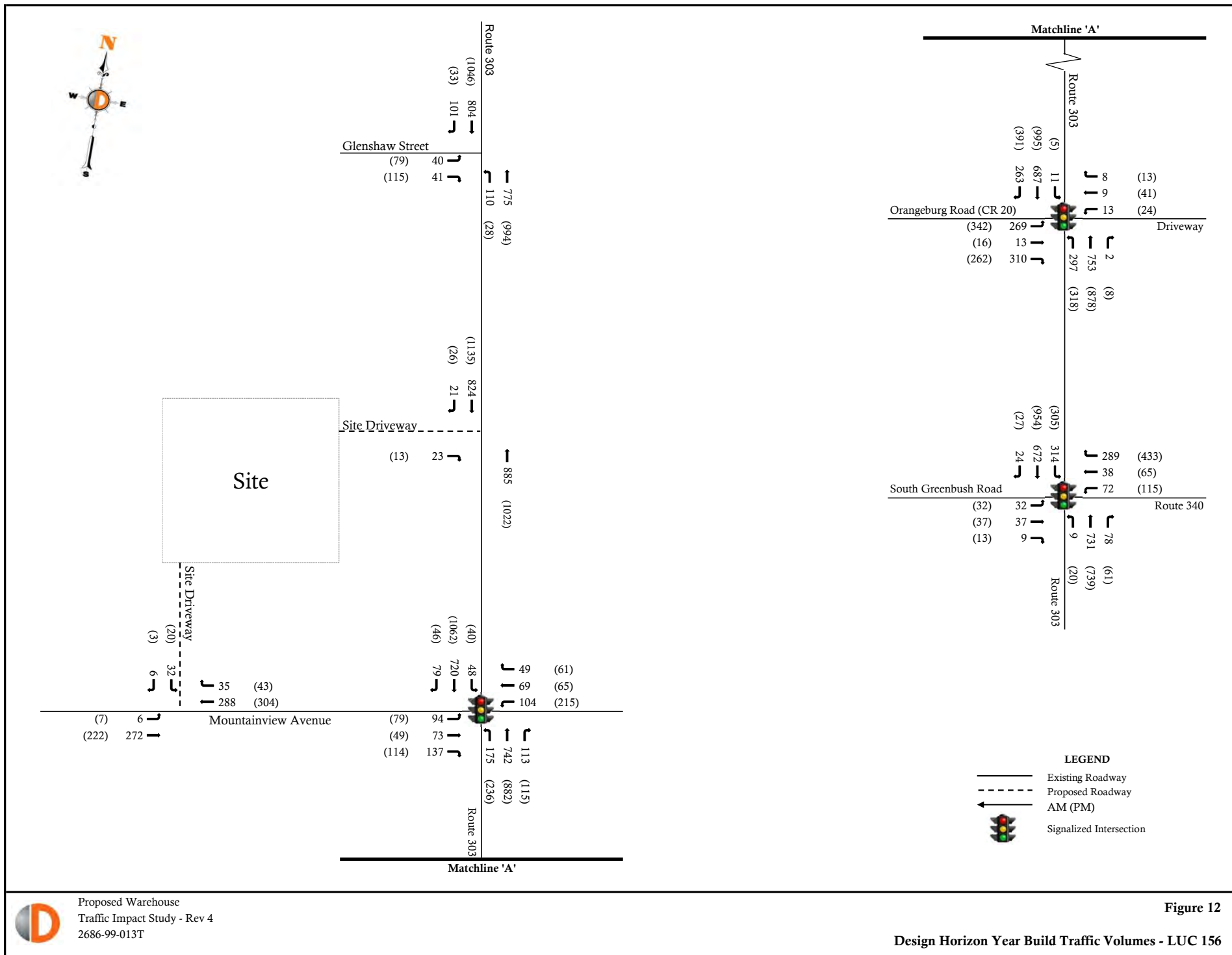












Appendix F
Alternate Capacity Analysis

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	46	105	65	45	11	118	534	57	9	528	64
Future Volume (vph)	60	46	105	65	45	11	118	534	57	9	528	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.933			0.988			0.988			0.984	
Flt Protected		0.986			0.974			0.992			0.999	
Satd. Flow (prot)	0	1724	0	0	1651	0	0	2968	0	0	2950	0
Flt Permitted		0.847			0.538			0.992			0.999	
Satd. Flow (perm)	0	1481	0	0	912	0	0	2968	0	0	2950	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		42			4						12	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Adj. Flow (vph)	65	49	113	70	48	12	127	574	61	10	568	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	227	0	0	130	0	0	762	0	0	647	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		17.9			17.9			34.0			41.1	
Actuated g/C Ratio		0.16			0.16			0.31			0.37	
v/c Ratio		0.82			0.86			0.83			0.58	
Control Delay		58.6			85.7			49.2			30.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		58.6			85.7			49.2			30.8	
LOS		E			F			D			C	
Approach Delay		58.6			85.7			49.2			30.8	
Approach LOS		E			F			D			C	
Queue Length 50th (ft)		128			87			293			187	
Queue Length 95th (ft)		203			#152			#364			275	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)		369			210			917			1109	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.62			0.62			0.83			0.58	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 46.4

Intersection LOS: D

Intersection Capacity Utilization 72.3%

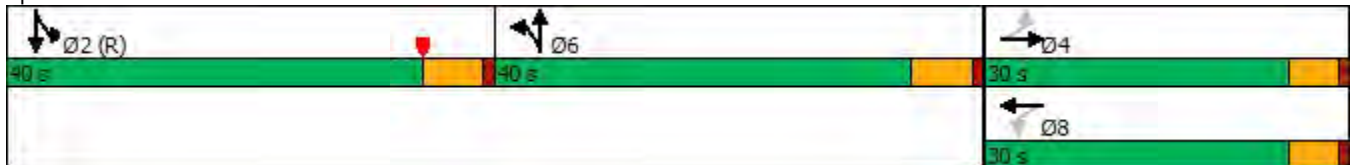
ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	34	89	126	36	10	161	682	78	11	792	37
Future Volume (vph)	52	34	89	126	36	10	161	682	78	11	792	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.931			0.992			0.987			0.993	
Flt Protected		0.985			0.965			0.991			0.999	
Satd. Flow (prot)	0	1733	0	0	1798	0	0	3065	0	0	3184	0
Flt Permitted		0.871			0.560			0.991			0.999	
Satd. Flow (perm)	0	1533	0	0	1043	0	0	3065	0	0	3184	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		44			3						4	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Adj. Flow (vph)	56	37	96	135	39	11	173	733	84	12	852	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	189	0	0	185	0	0	990	0	0	904	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		21.4			21.4			34.0			37.6	
Actuated g/C Ratio		0.19			0.19			0.31			0.34	
v/c Ratio		0.57			0.90			1.05			0.83	
Control Delay		36.7			84.4			73.5			41.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		36.7			84.4			73.5			41.8	
LOS		D			F			E			D	
Approach Delay		36.7			84.4			73.5			41.8	
Approach LOS		D			F			E			D	
Queue Length 50th (ft)		90			123			~406			314	
Queue Length 95th (ft)		161			#239			#541			#445	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)		382			239			947			1091	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.49			0.77			1.05			0.83	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 58.7

Intersection LOS: E

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

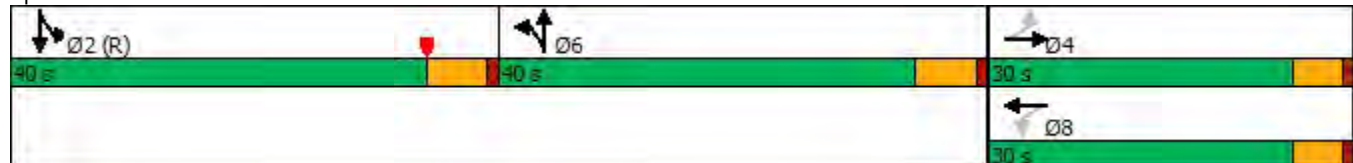
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	55	107	85	51	40	120	608	93	39	571	65
Future Volume (vph)	61	55	107	85	51	40	120	608	93	39	571	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.935			0.969			0.983			0.986	
Flt Protected		0.986			0.976			0.993			0.997	
Satd. Flow (prot)	0	1727	0	0	1514	0	0	2960	0	0	2908	0
Flt Permitted		0.830			0.597			0.993			0.997	
Satd. Flow (perm)	0	1453	0	0	926	0	0	2960	0	0	2908	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		39			12						11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	240	0	0	189	0	0	883	0	0	726	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		22.8			22.8			34.0			36.2	
Actuated g/C Ratio		0.21			0.21			0.31			0.33	
v/c Ratio		0.73			0.94			0.97			0.75	
Control Delay		46.7			91.0			60.5			38.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		46.7			91.0			60.5			38.9	
LOS		D			F			E			D	
Approach Delay		46.7			91.0			60.5			38.9	
Approach LOS		D			F			E			D	
Queue Length 50th (ft)		130			122			345			243	
Queue Length 95th (ft)		220			#254			#468			319	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		360			219			914			965	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.67			0.86			0.97			0.75	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 54.0

Intersection LOS: D

Intersection Capacity Utilization 78.6%

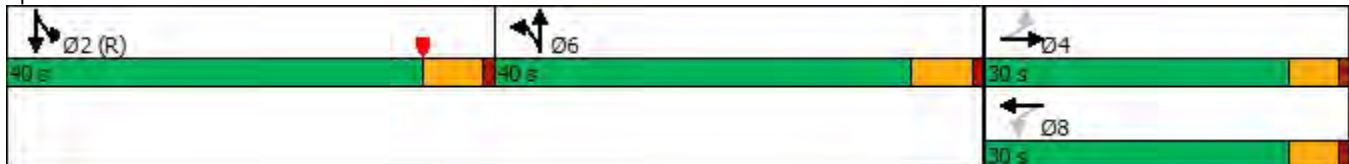
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	38	91	175	47	50	164	722	94	33	858	38
Future Volume (vph)	53	38	91	175	47	50	164	722	94	33	858	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.975			0.986			0.994	
Flt Protected		0.986			0.969			0.992			0.998	
Satd. Flow (prot)	0	1737	0	0	1752	0	0	3065	0	0	3154	0
Flt Permitted		0.849			0.604			0.992			0.998	
Satd. Flow (perm)	0	1496	0	0	1092	0	0	3065	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		42			10							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	0	0	293	0	0	1053	0	0	999	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.53			1.15			1.11			1.02	
Control Delay		34.9			140.9			94.4			72.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		34.9			140.9			94.4			72.6	
LOS		C			F			F			E	
Approach Delay		34.9			140.9			94.4			72.6	
Approach LOS		C			F			F			E	
Queue Length 50th (ft)		95			~238			~457			~394	
Queue Length 95th (ft)		171			#412			m#585			#526	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		372			255			947			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.53			1.15			1.11			1.02	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 86.6

Intersection LOS: F

Intersection Capacity Utilization 98.3%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

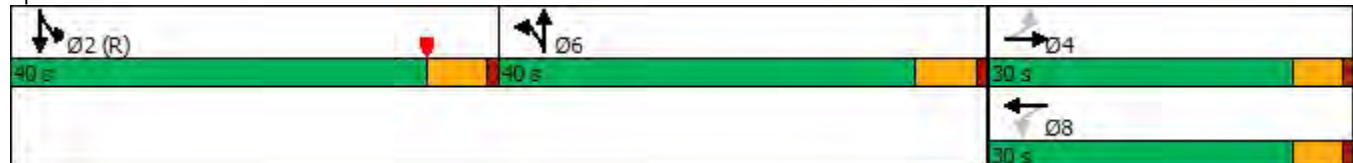
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	61	113	85	57	40	149	608	93	39	594	65
Future Volume (vph)	81	61	113	85	57	40	149	608	93	39	594	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.940			0.970			0.984			0.986	
Flt Protected		0.984			0.977			0.991			0.997	
Satd. Flow (prot)	0	1712	0	0	1525	0	0	2961	0	0	2909	0
Flt Permitted		0.791			0.598			0.991			0.997	
Satd. Flow (perm)	0	1376	0	0	933	0	0	2961	0	0	2909	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		34			12						10	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	275	0	0	195	0	0	914	0	0	751	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		23.3			23.3			34.0			35.7	
Actuated g/C Ratio		0.21			0.21			0.31			0.32	
v/c Ratio		0.86			0.95			1.00			0.79	
Control Delay		62.7			90.6			66.9			41.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		62.7			90.6			66.9			41.0	
LOS		E			F			E			D	
Approach Delay		62.7			90.6			66.9			41.0	
Approach LOS		E			F			E			D	
Queue Length 50th (ft)		164			126			358			255	
Queue Length 95th (ft)		#303			#264			#492			#335	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		339			221			915			952	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.81			0.88			1.00			0.79	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 59.4

Intersection LOS: E

Intersection Capacity Utilization 78.7%

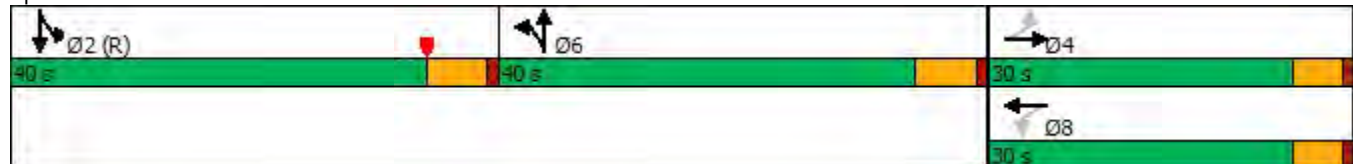
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	41	94	175	54	50	200	722	94	33	871	38
Future Volume (vph)	67	41	94	175	54	50	200	722	94	33	871	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.937			0.976			0.986			0.994	
Flt Protected		0.984			0.970			0.990			0.998	
Satd. Flow (prot)	0	1723	0	0	1757	0	0	3064	0	0	3155	0
Flt Permitted		0.819			0.600			0.990			0.998	
Satd. Flow (perm)	0	1434	0	0	1087	0	0	3064	0	0	3155	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		37			9							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	217	0	0	300	0	0	1092	0	0	1013	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.61			1.18			1.15			1.04	
Control Delay		39.9			152.1			109.8			76.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		39.9			152.1			109.8			76.4	
LOS		D			F			F			E	
Approach Delay		39.9			152.1			109.8			76.4	
Approach LOS		D			F			F			E	
Queue Length 50th (ft)		115			~251			~489			~405	
Queue Length 95th (ft)		198			#426			m#601			#538	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		354			254			947			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.61			1.18			1.15			1.04	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 96.0

Intersection LOS: F

Intersection Capacity Utilization 97.4%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

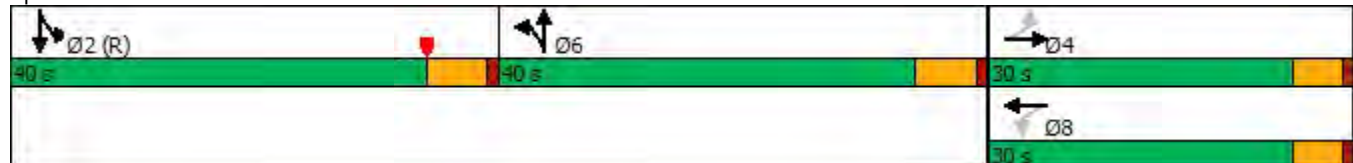
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	61	113	85	57	40	149	608	93	39	594	65
Future Volume (vph)	81	61	113	85	57	40	149	608	93	39	594	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.903			0.970			0.984			0.986	
Flt Protected	0.950				0.977			0.991			0.997	
Satd. Flow (prot)	1728	1685	0	0	1525	0	0	2961	0	0	2909	0
Flt Permitted	0.572				0.592			0.991			0.997	
Satd. Flow (perm)	1041	1685	0	0	924	0	0	2961	0	0	2909	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		78			12						10	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	188	0	0	195	0	0	914	0	0	751	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Maximum Green (s)	25.0	25.0		25.0	25.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Walk Time (s)	7.0	7.0								7.0	7.0	
Flash Dont Walk (s)	18.0	18.0								15.0	15.0	
Pedestrian Calls (#/hr)	0	0								0	0	
Act Effct Green (s)	23.2	23.2			23.2			34.0			35.8	
Actuated g/C Ratio	0.21	0.21			0.21			0.31			0.33	
v/c Ratio	0.40	0.45			0.96			1.00			0.79	
Control Delay	42.6	24.9			93.5			66.9			40.8	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	42.6	24.9			93.5			66.9			40.8	
LOS	D	C			F			E			D	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		30.5			93.5			66.9			40.8	
Approach LOS		C			F			E			D	
Queue Length 50th (ft)	52	65			127			358			255	
Queue Length 95th (ft)	102	133			#265			#492			#335	
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)	236	443			219			915			953	
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	0.42			0.89			1.00			0.79	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 55.5

Intersection LOS: E

Intersection Capacity Utilization 86.6%

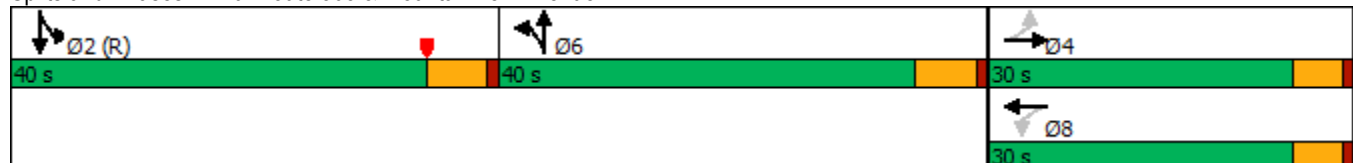
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	41	94	175	54	50	200	722	94	33	871	38
Future Volume (vph)	67	41	94	175	54	50	200	722	94	33	871	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.896			0.976			0.986			0.994	
Flt Protected	0.950				0.970			0.990			0.998	
Satd. Flow (prot)	1762	1681	0	0	1757	0	0	3064	0	0	3155	0
Flt Permitted	0.608				0.654			0.990			0.998	
Satd. Flow (perm)	1127	1681	0	0	1184	0	0	3064	0	0	3155	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		97			9							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	145	0	0	300	0	0	1092	0	0	1013	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Maximum Green (s)	25.0	25.0		25.0	25.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Walk Time (s)	7.0	7.0								7.0	7.0	
Flash Dont Walk (s)	18.0	18.0								15.0	15.0	
Pedestrian Calls (#/hr)	0	0								0	0	
Act Effct Green (s)	25.0	25.0			25.0			34.0			34.0	
Actuated g/C Ratio	0.23	0.23			0.23			0.31			0.31	
v/c Ratio	0.28	0.32			1.09			1.15			1.04	
Control Delay	38.7	15.4			119.3			109.8			76.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	38.7	15.4			119.3			109.8			76.4	
LOS	D	B			F			F			E	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		23.1			119.3			109.8			76.4	
Approach LOS		C			F			F			E	
Queue Length 50th (ft)	42	27			~234			~489			~405	
Queue Length 95th (ft)	86	81			#410			m#601			#538	
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)	256	457			276			947			977	
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	0.28	0.32			1.09			1.15			1.04	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 90.8

Intersection LOS: F

Intersection Capacity Utilization 96.9%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

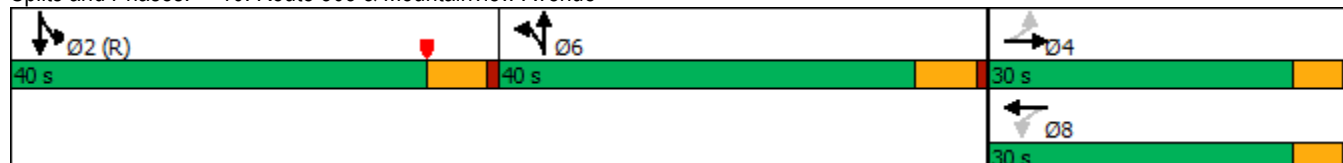
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	67	131	104	63	49	146	742	113	48	697	79
Future Volume (vph)	74	67	131	104	63	49	146	742	113	48	697	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.935			0.969			0.983			0.986	
Flt Protected		0.987			0.977			0.993			0.997	
Satd. Flow (prot)	0	1728	0	0	1516	0	0	2960	0	0	2907	0
Flt Permitted		0.811			0.566			0.993			0.997	
Satd. Flow (perm)	0	1420	0	0	878	0	0	2960	0	0	2907	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		39			12						11	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	233	0	0	1077	0	0	886	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.83			1.12			1.18			0.98	
Control Delay		56.1			136.9			121.6			62.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		56.1			136.9			121.6			62.8	
LOS		E			F			F			E	
Approach Delay		56.1			136.9			121.6			62.8	
Approach LOS		E			F			F			E	
Queue Length 50th (ft)		174			~183			~489			322	
Queue Length 95th (ft)		#321			#342			m#590			#461	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		352			208			914			906	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.83			1.12			1.18			0.98	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 94.4

Intersection LOS: F

Intersection Capacity Utilization 86.7%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

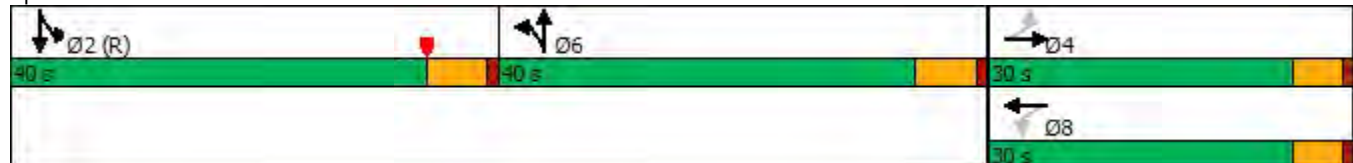
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	46	111	215	58	61	200	882	115	40	1049	46
Future Volume (vph)	65	46	111	215	58	61	200	882	115	40	1049	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.975			0.986			0.994	
Flt Protected		0.986			0.969			0.992			0.998	
Satd. Flow (prot)	0	1737	0	0	1752	0	0	3065	0	0	3154	0
Flt Permitted		0.844			0.559			0.992			0.998	
Satd. Flow (perm)	0	1487	0	0	1011	0	0	3065	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		42			10						4	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	238	0	0	359	0	0	1287	0	0	1220	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effct Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.64			1.51			1.36			1.25	
Control Delay		40.5			283.4			192.9			154.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		40.5			283.4			192.9			154.3	
LOS		D			F			F			F	
Approach Delay		40.5			283.4			192.9			154.3	
Approach LOS		D			F			F			F	
Queue Length 50th (ft)		126			~351			~645			~569	
Queue Length 95th (ft)		214			#537			m#607			#706	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		370			237			947			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.64			1.51			1.36			1.25	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 176.5

Intersection LOS: F

Intersection Capacity Utilization 115.3%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

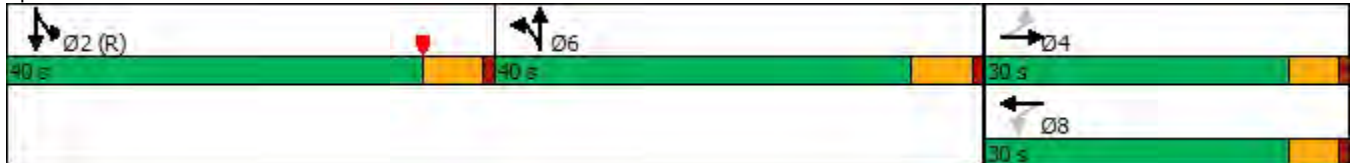
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	73	137	104	69	49	175	742	113	48	720	79
Future Volume (vph)	94	73	137	104	69	49	175	742	113	48	720	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.939			0.970			0.983			0.986	
Flt Protected		0.985			0.977			0.992			0.997	
Satd. Flow (prot)	0	1712	0	0	1524	0	0	2960	0	0	2908	0
Flt Permitted		0.779			0.569			0.992			0.997	
Satd. Flow (perm)	0	1354	0	0	887	0	0	2960	0	0	2908	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		35			12						10	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	326	0	0	239	0	0	1108	0	0	911	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.98			1.14			1.21			1.01	
Control Delay		82.4			142.3			135.0			69.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		82.4			142.3			135.0			69.6	
LOS		F			F			F			E	
Approach Delay		82.4			142.3			135.0			69.6	
Approach LOS		F			F			F			E	
Queue Length 50th (ft)		208			~190			~514			~338	
Queue Length 95th (ft)		#393			#351			m#594			#482	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		334			210			914			905	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.98			1.14			1.21			1.01	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.21

Intersection Signal Delay: 106.0

Intersection LOS: F

Intersection Capacity Utilization 86.8%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

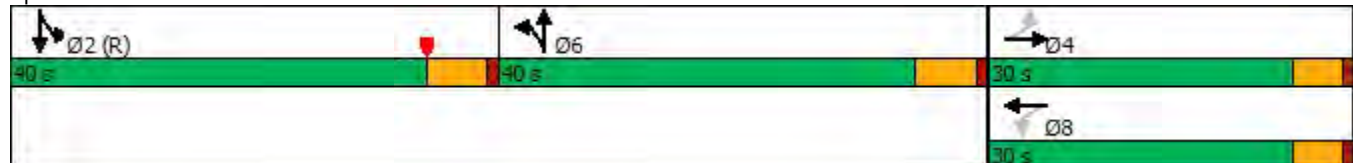
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	49	114	215	65	61	236	882	115	40	1062	46
Future Volume (vph)	79	49	114	215	65	61	236	882	115	40	1062	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.936			0.976			0.986			0.994	
Flt Protected		0.984			0.969			0.991			0.998	
Satd. Flow (prot)	0	1721	0	0	1755	0	0	3066	0	0	3154	0
Flt Permitted		0.819			0.556			0.991			0.998	
Satd. Flow (perm)	0	1433	0	0	1007	0	0	3066	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		38			9							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	261	0	0	367	0	0	1326	0	0	1234	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Act Effect Green (s)		25.0			25.0			34.0			34.0	
Actuated g/C Ratio		0.23			0.23			0.31			0.31	
v/c Ratio		0.74			1.56			1.40			1.26	
Control Delay		47.2			303.1			210.9			160.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		47.2			303.1			210.9			160.2	
LOS		D			F			F			F	
Approach Delay		47.2			303.1			210.9			160.2	
Approach LOS		D			F			F			F	
Queue Length 50th (ft)		148			~365			~676			~580	
Queue Length 95th (ft)		#265			#553			m#614			#718	
Internal Link Dist (ft)		418			629			1297			1006	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		355			235			947			977	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.74			1.56			1.40			1.26	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.56

Intersection Signal Delay: 188.5

Intersection LOS: F

Intersection Capacity Utilization 116.0%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

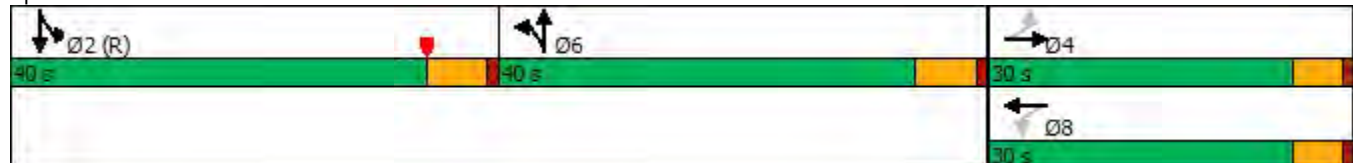
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	73	137	104	69	49	175	742	113	48	720	79
Future Volume (vph)	94	73	137	104	69	49	175	742	113	48	720	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.902			0.970			0.983			0.986	
Flt Protected	0.950				0.977			0.992			0.997	
Satd. Flow (prot)	1728	1683	0	0	1524	0	0	2960	0	0	2908	0
Flt Permitted	0.547				0.530			0.992			0.997	
Satd. Flow (perm)	995	1683	0	0	827	0	0	2960	0	0	2908	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		80			12						10	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		498			709			1377			1086	
Travel Time (s)		11.3			16.1			23.5			18.5	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	4%	3%	11%	0%	64%	7%	13%	4%	50%	13%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	101	225	0	0	239	0	0	1108	0	0	911	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Maximum Green (s)	25.0	25.0		25.0	25.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Walk Time (s)	7.0	7.0								7.0	7.0	
Flash Dont Walk (s)	18.0	18.0								15.0	15.0	
Pedestrian Calls (#/hr)	0	0								0	0	
Act Effct Green (s)	25.0	25.0			25.0			34.0			34.0	
Actuated g/C Ratio	0.23	0.23			0.23			0.31			0.31	
v/c Ratio	0.45	0.51			1.21			1.21			1.01	
Control Delay	44.0	28.0			169.7			135.0			69.6	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	44.0	28.0			169.7			135.0			69.6	
LOS	D	C			F			F			E	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.0			169.7			135.0			69.6	
Approach LOS		C			F			F			E	
Queue Length 50th (ft)	62	88			~201			~514			~338	
Queue Length 95th (ft)	117	166			#361			m#594			#482	
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)	226	444			197			914			905	
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	0.45	0.51			1.21			1.21			1.01	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.21

Intersection Signal Delay: 102.3

Intersection LOS: F

Intersection Capacity Utilization 96.0%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

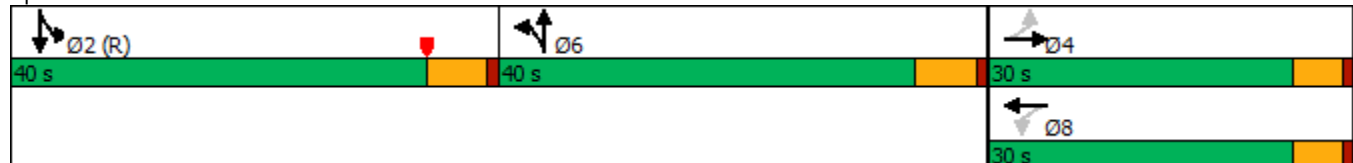
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	49	114	215	65	61	236	882	115	40	1062	46
Future Volume (vph)	79	49	114	215	65	61	236	882	115	40	1062	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-3%			-2%			0%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.895			0.976			0.986			0.994	
Flt Protected	0.950				0.969			0.991			0.998	
Satd. Flow (prot)	1762	1679	0	0	1755	0	0	3066	0	0	3154	0
Flt Permitted	0.608				0.588			0.991			0.998	
Satd. Flow (perm)	1127	1679	0	0	1065	0	0	3066	0	0	3154	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		98			9							4
Link Speed (mph)		30			30			40				40
Link Distance (ft)		498			709			1377				1086
Travel Time (s)		11.3			16.1			23.5				18.5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	0%	4%	2%	0%	12%	3%	9%	4%	50%	5%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	176	0	0	367	0	0	1326	0	0	1234	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		6	6		2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		34.0	34.0		5.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		40.0	40.0		11.0	11.0	
Total Split (s)	30.0	30.0		30.0	30.0		40.0	40.0		40.0	40.0	
Total Split (%)	27.3%	27.3%		27.3%	27.3%		36.4%	36.4%		36.4%	36.4%	
Maximum Green (s)	25.0	25.0		25.0	25.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		C-Max	C-Max	
Walk Time (s)	7.0	7.0								7.0	7.0	
Flash Dont Walk (s)	18.0	18.0								15.0	15.0	
Pedestrian Calls (#/hr)	0	0								0	0	
Act Effct Green (s)	25.0	25.0			25.0			34.0			34.0	
Actuated g/C Ratio	0.23	0.23			0.23			0.31			0.31	
v/c Ratio	0.33	0.39			1.47			1.40			1.26	
Control Delay	39.9	19.0			265.8			210.9			160.2	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	39.9	19.0			265.8			210.9			160.2	
LOS	D	B			F			F			F	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		25.8			265.8			210.9			160.2	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)	50	45			~355			~676			~580	
Queue Length 95th (ft)	99	108			#543			m#614			#718	
Internal Link Dist (ft)		418			629			1297			1006	
Turn Bay Length (ft)												
Base Capacity (vph)	256	457			249			947			977	
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	0.33	0.39			1.47			1.40			1.26	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 5 (5%), Referenced to phase 2:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.47

Intersection Signal Delay: 182.5

Intersection LOS: F

Intersection Capacity Utilization 113.8%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

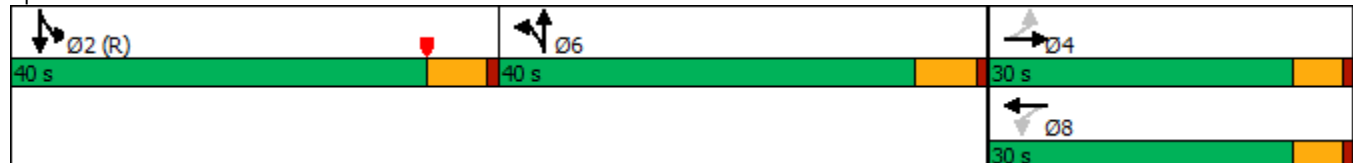
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 10: Route 303 & Mountainview Avenue



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	13	246	13	9	8	236	508	2	10	490	198
Future Volume (vph)	193	13	246	13	9	8	236	508	2	10	490	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.957	
Flt Protected		0.955			0.972			0.984			0.999	
Satd. Flow (prot)	0	1686	1481	0	1847	1615	0	3182	0	0	2995	0
Flt Permitted		0.955			0.701			0.575			0.941	
Satd. Flow (perm)	0	1686	1462	0	1331	1615	0	1859	0	0	2821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			262			119					65	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Adj. Flow (vph)	205	14	262	14	10	9	251	540	2	11	521	211
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	219	262	0	24	9	0	793	0	0	743	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		18.6	28.6		7.0	7.0		73.5			58.5	
Actuated g/C Ratio		0.17	0.26		0.06	0.06		0.67			0.53	
v/c Ratio		0.77	0.46		0.29	0.04		0.58			0.49	
Control Delay		60.7	5.8		56.9	0.4		15.5			21.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		60.7	5.8		56.9	0.4		15.5			21.9	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	A		E	A		B			C	
Approach Delay		30.8			41.5			15.5			21.9	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		149	0		17	0		89			104	
Queue Length 95th (ft)		218	53		43	0		137			219	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		383	645		121	255		1362			1530	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.57	0.41		0.20	0.04		0.58			0.49	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 21.8

Intersection LOS: C

Intersection Capacity Utilization 105.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	16	205	23	40	12	250	650	8	4	706	297
Future Volume (vph)	259	16	205	23	40	12	250	650	8	4	706	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.956	
Flt Protected		0.955			0.982			0.986				
Satd. Flow (prot)	0	1613	1538	0	1866	1615	0	3344	0	0	3230	0
Flt Permitted		0.955			0.761			0.507			0.952	
Satd. Flow (perm)	0	1610	1538	0	1446	1592	0	1719	0	0	3075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			216			119		1			71	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Adj. Flow (vph)	273	17	216	24	42	13	263	684	8	4	743	313
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	216	0	66	13	0	955	0	0	1060	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		22.6	37.6		8.6	8.6		65.9			50.9	
Actuated g/C Ratio		0.21	0.34		0.08	0.08		0.60			0.46	
v/c Ratio		0.88	0.32		0.59	0.06		0.81			0.73	
Control Delay		68.5	4.6		69.7	0.4		27.7			36.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		68.5	4.6		69.7	0.4		27.7			36.2	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E	A		E	A		C			D	
Approach Delay		41.3			58.3			27.7			36.2	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		194	0		45	0		151			256	
Queue Length 95th (ft)		#327	49		92	0		m#205			323	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	696		131	252		1177			1459	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.79	0.31		0.50	0.05		0.81			0.73	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 34.7

Intersection LOS: C

Intersection Capacity Utilization 109.4%

ICU Level of Service H

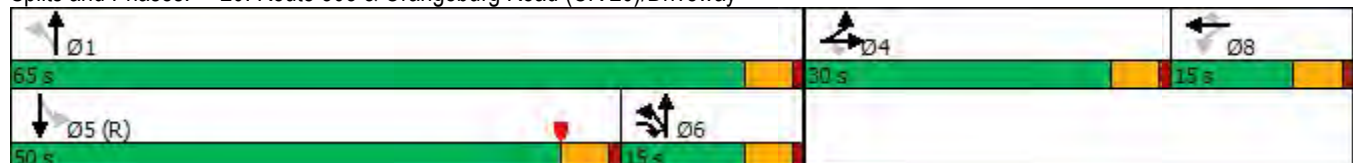
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	211	13	253	13	9	8	243	602	2	10	547	206
Future Volume (vph)	211	13	253	13	9	8	243	602	2	10	547	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.960	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1685	1481	0	1847	1615	0	3183	0	0	3006	0
Flt Permitted		0.955			0.691			0.564			0.939	
Satd. Flow (perm)	0	1685	1462	0	1312	1615	0	1821	0	0	2825	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			269			119					58	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	238	269	0	24	9	0	901	0	0	812	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		19.5	29.5		7.0	7.0		72.6			57.6	
Actuated g/C Ratio		0.18	0.27		0.06	0.06		0.66			0.52	
v/c Ratio		0.80	0.46		0.29	0.04		0.68			0.54	
Control Delay		62.2	5.6		57.1	0.4		17.7			29.2	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		62.2	5.6		57.1	0.4		17.7			29.2	
LOS		E	A		E	A		B			C	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		32.2			41.7			17.7			29.2	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		162	0		17	0		88			191	
Queue Length 95th (ft)		238	54		43	0		162			m240	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	650		119	255		1325			1506	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.62	0.41		0.20	0.04		0.68			0.54	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.5

Intersection LOS: C

Intersection Capacity Utilization 106.5%

ICU Level of Service G

Analysis Period (min) 15

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	16	213	23	41	12	260	700	8	4	806	314
Future Volume (vph)	268	16	213	23	41	12	260	700	8	4	806	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1613	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.760			0.505			0.952	
Satd. Flow (perm)	0	1610	1538	0	1444	1592	0	1712	0	0	3080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198			119		1			63	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	299	224	0	67	13	0	1019	0	0	1183	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		22.9	37.9		8.6	8.6		65.5			50.5	
Actuated g/C Ratio		0.21	0.34		0.08	0.08		0.60			0.46	
v/c Ratio		0.89	0.34		0.60	0.06		1.01dl			0.82	
Control Delay		70.6	6.4		70.1	0.4		30.4			40.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		70.6	6.4		70.1	0.4		30.4			40.4	
LOS		E	A		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		43.1			58.8			30.4			40.4	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		202	12		46	0		171			302	
Queue Length 95th (ft)		#343	64		93	0		m#231			m293	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	685		131	252		1168			1449	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.82	0.33		0.51	0.05		0.87			0.82	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 37.8

Intersection LOS: D

Intersection Capacity Utilization 109.9%

ICU Level of Service H

Analysis Period (min) 15

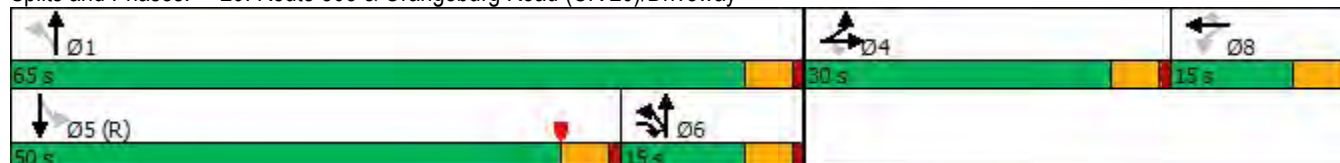
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	223	13	253	13	9	8	243	619	2	10	565	217
Future Volume (vph)	223	13	253	13	9	8	243	619	2	10	565	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.959	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1685	1481	0	1847	1615	0	3182	0	0	3003	0
Flt Permitted		0.955			0.685			0.557			0.940	
Satd. Flow (perm)	0	1685	1462	0	1301	1615	0	1798	0	0	2825	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			269			119					60	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	251	269	0	24	9	0	920	0	0	843	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		20.2	30.2		7.0	7.0		72.0			57.0	
Actuated g/C Ratio		0.18	0.27		0.06	0.06		0.65			0.52	
v/c Ratio		0.81	0.45		0.29	0.04		0.71			0.57	
Control Delay		63.2	5.5		57.3	0.4		19.0			30.5	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		63.2	5.5		57.3	0.4		19.0			30.5	
LOS		E	A		E	A		B			C	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		33.4			41.7			19.0			30.5	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)		171	0		17	0		93			200	
Queue Length 95th (ft)		251	54		43	0		168			m248	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	650		118	255		1302			1491	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.66	0.41		0.20	0.04		0.71			0.57	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 26.7

Intersection LOS: C

Intersection Capacity Utilization 107.2%

ICU Level of Service G

Analysis Period (min) 15

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	282	16	213	23	41	12	260	722	8	4	815	321
Future Volume (vph)	282	16	213	23	41	12	260	722	8	4	815	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1613	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.754			0.506			0.952	
Satd. Flow (perm)	0	1609	1538	0	1433	1592	0	1715	0	0	3080	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			119		1			64	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	314	224	0	67	13	0	1042	0	0	1200	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	6	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		23.6	38.6		8.6	8.6		64.9			49.9	
Actuated g/C Ratio		0.21	0.35		0.08	0.08		0.59			0.45	
v/c Ratio		0.91	0.34		0.60	0.06		1.05dl			0.84	
Control Delay		72.9	6.5		70.6	0.4		32.6			40.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		72.9	6.5		70.6	0.4		32.6			40.9	
LOS		E	A		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		45.2			59.2			32.6			40.9	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)		214	13		46	0		180			306	
Queue Length 95th (ft)		#368	65		93	0		m#243			m293	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	666		130	252		1160			1432	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.86	0.34		0.52	0.05		0.90			0.84	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 39.2

Intersection LOS: D

Intersection Capacity Utilization 110.6%

ICU Level of Service H

Analysis Period (min) 15

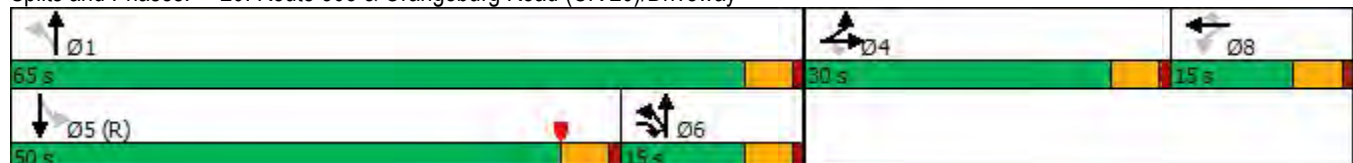
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	13	310	13	9	8	297	736	2	11	669	252
Future Volume (vph)	257	13	310	13	9	8	297	736	2	11	669	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.959	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1684	1481	0	1847	1615	0	3183	0	0	3004	0
Flt Permitted		0.955			0.667			0.522			0.936	
Satd. Flow (perm)	0	1684	1462	0	1267	1615	0	1685	0	0	2814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			252			119						58
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	287	330	0	24	9	0	1101	0	0	992	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		21.9	31.9		7.0	7.0		70.1			55.1	
Actuated g/C Ratio		0.20	0.29		0.06	0.06		0.64			0.50	
v/c Ratio		0.86	0.55		0.30	0.04		0.91			0.69	
Control Delay		65.8	10.7		57.8	0.4		29.8			35.4	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		65.8	10.7		57.8	0.4		29.8			35.4	
LOS		E	B		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.3			42.1			29.8			35.4	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)		193	37		17	0		192			245	
Queue Length 95th (ft)		#309	112		43	0		#381			m253	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	638		115	255		1210			1439	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.75	0.52		0.21	0.04		0.91			0.69	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 33.4

Intersection LOS: C

Intersection Capacity Utilization 109.1%

ICU Level of Service H

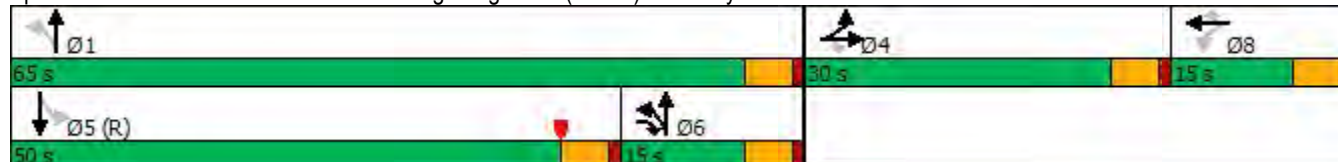
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	16	262	24	41	13	318	856	8	5	986	384
Future Volume (vph)	328	16	262	24	41	13	318	856	8	5	986	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.955			0.982			0.987				
Satd. Flow (prot)	0	1611	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.955			0.731			0.523			0.950	
Satd. Flow (perm)	0	1608	1538	0	1389	1592	0	1773	0	0	3073	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			169			119		1			63	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	362	276	0	68	14	0	1244	0	0	1447	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	6	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effct Green (s)		25.0	40.0		8.7	8.7		63.4			48.4	
Actuated g/C Ratio		0.23	0.36		0.08	0.08		0.58			0.44	
v/c Ratio		0.99	0.41		0.62	0.06		1.48dl			1.04	
Control Delay		87.8	12.0		72.7	0.5		65.2			64.3	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		87.8	12.0		72.7	0.5		65.2			64.3	
LOS		F	B		E	A		E			E	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		55.0			60.3			65.2			64.3	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		256	51		47	0		~341			~434	
Queue Length 95th (ft)		#448	122		#100	0		m#364			m296	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		366	666		126	252		1165			1386	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.99	0.41		0.54	0.06		1.07			1.04	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 62.8

Intersection LOS: E

Intersection Capacity Utilization 115.4%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

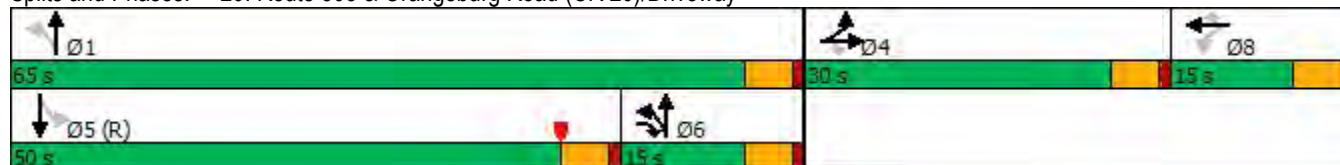
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	269	13	310	13	9	8	297	753	2	11	687	263
Future Volume (vph)	269	13	310	13	9	8	297	753	2	11	687	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor			0.99		1.00			1.00			1.00	
Frt			0.850			0.850					0.959	
Flt Protected		0.955			0.972			0.986			0.999	
Satd. Flow (prot)	0	1684	1481	0	1847	1615	0	3182	0	0	3004	0
Flt Permitted		0.955			0.660			0.516			0.936	
Satd. Flow (perm)	0	1684	1462	0	1253	1615	0	1665	0	0	2814	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			247			119					60	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)			1	1					4	4		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	0%	7%	0%	0%	0%	6%	12%	0%	38%	11%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	300	330	0	24	9	0	1119	0	0	1023	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effect Green (s)		22.5	32.5		7.0	7.0		69.6			54.6	
Actuated g/C Ratio		0.20	0.30		0.06	0.06		0.63			0.50	
v/c Ratio		0.87	0.54		0.30	0.04		0.96dl			0.72	
Control Delay		67.3	10.9		58.1	0.4		33.7			35.5	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		67.3	10.9		58.1	0.4		33.7			35.5	
LOS		E	B		E	A		C			D	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		37.8			42.4			33.7			35.5	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)		201	39		17	0		~127			254	
Queue Length 95th (ft)		#332	116		43	0		#462			m251	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		382	635		113	255		1190			1426	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		0.79	0.52		0.21	0.04		0.94			0.72	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 35.4

Intersection LOS: D

Intersection Capacity Utilization 109.8%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

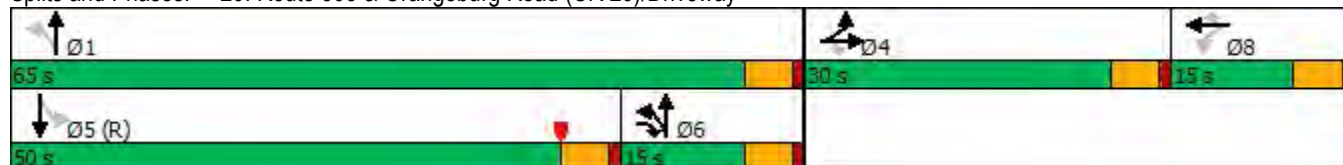
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	16	262	24	41	13	318	878	8	5	995	391
Future Volume (vph)	342	16	262	24	41	13	318	878	8	5	995	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	12	12	11	11	11	11	11	11
Grade (%)		-3%			0%			-4%			-1%	
Storage Length (ft)	685		0	0		0	0		0	0		0
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	110			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00				0.99						
Frt			0.850			0.850		0.999			0.958	
Flt Protected		0.954			0.982			0.987				
Satd. Flow (prot)	0	1609	1538	0	1866	1615	0	3346	0	0	3235	0
Flt Permitted		0.954			0.725			0.524			0.950	
Satd. Flow (perm)	0	1606	1538	0	1377	1592	0	1776	0	0	3073	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			168			119		1			64	
Link Speed (mph)		30			25			40			40	
Link Distance (ft)		1228			609			621			1377	
Travel Time (s)		27.9			16.6			10.6			23.5	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	11%	0%	3%	0%	0%	0%	2%	6%	0%	0%	5%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	377	276	0	68	14	0	1267	0	0	1464	0
Turn Type	Split	NA	pm+ov	Perm	NA	Perm	custom	NA		Perm	NA	
Protected Phases	4	4	6		8		6	16			5	
Permitted Phases			4	8		8	1			5		
Detector Phase	4	4	4	8	8	8	6	16		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0			45.0	45.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0			50.0	50.0	
Total Split (s)	30.0	30.0	15.0	15.0	15.0	15.0	15.0			50.0	50.0	
Total Split (%)	27.3%	27.3%	13.6%	13.6%	13.6%	13.6%	13.6%			45.5%	45.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0					0.0	
Total Lost Time (s)		5.0	5.0		5.0	5.0					5.0	
Lead/Lag			Lag				Lag			Lead	Lead	
Lead-Lag Optimize?			Yes				Yes			Yes	Yes	
Recall Mode	None	None	None	None	None	None	None			C-Max	C-Max	
Act Effct Green (s)		25.0	40.0		8.7	8.7		63.4			48.4	
Actuated g/C Ratio		0.23	0.36		0.08	0.08		0.58			0.44	
v/c Ratio		1.03	0.41		0.62	0.06		1.48dl			1.06	
Control Delay		98.3	12.1		73.2	0.5		72.2			68.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0			0.0	
Total Delay		98.3	12.1		73.2	0.5		72.2			68.9	
LOS		F	B		E	A		E			E	

Lane Group	Ø1
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	1
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	65.0
Total Split (%)	59%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		61.9			60.8			72.2			68.9	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		~286	52		47	0		~407			~444	
Queue Length 95th (ft)		#473	122		#101	0		m#391			m296	
Internal Link Dist (ft)		1148			529			541			1297	
Turn Bay Length (ft)												
Base Capacity (vph)		365	666		125	252		1165			1386	
Starvation Cap Reductn		0	0		0	0		0			0	
Spillback Cap Reductn		0	0		0	0		0			0	
Storage Cap Reductn		0	0		0	0		0			0	
Reduced v/c Ratio		1.03	0.41		0.54	0.06		1.09			1.06	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 5:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 68.6

Intersection LOS: E

Intersection Capacity Utilization 116.6%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

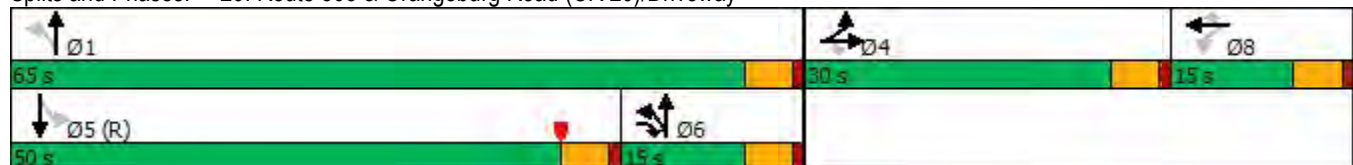
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 20: Route 303 & Orangeburg Road (CR 20)/Driveway



Lane Group	Ø1
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	28	7	58	30	207	6	514	63	233	496	20
Future Volume (vph)	25	28	7	58	30	207	6	514	63	233	496	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.985			0.905			0.984			0.996	
Flt Protected		0.979			0.990						0.985	
Satd. Flow (prot)	0	1871	0	0	1617	0	0	3141	0	0	3139	0
Flt Permitted		0.620			0.927			0.948			0.602	
Satd. Flow (perm)	0	1185	0	0	1514	0	0	2978	0	0	1918	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			113			14				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Adj. Flow (vph)	26	29	7	61	32	218	6	541	66	245	522	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	311	0	0	613	0	0	788	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		20.1			20.1			61.7			79.9	
Actuated g/C Ratio		0.18			0.18			0.56			0.73	
v/c Ratio		0.28			0.84			0.37			0.51	
Control Delay		35.4			46.7			15.5			9.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		35.4			46.7			15.5			9.1	
LOS		D			D			B			A	
Approach Delay		35.4			46.7			15.5			9.1	
Approach LOS		D			D			B			A	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		34			139			121			105	
Queue Length 95th (ft)		66			220			197			107	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		381			558			1675			1559	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.56			0.37			0.51	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 18.8

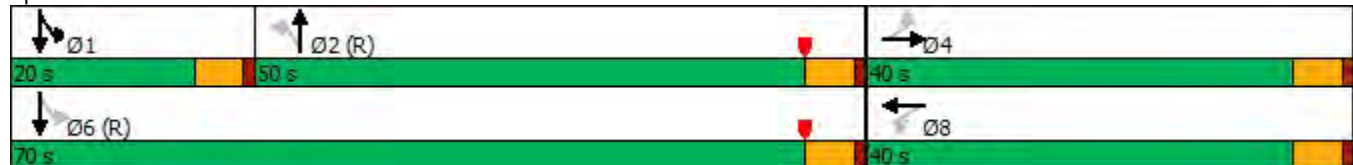
Intersection LOS: B

Intersection Capacity Utilization 90.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	26	11	78	52	330	13	553	49	211	701	22
Future Volume (vph)	25	26	11	78	52	330	13	553	49	211	701	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.976			0.903			0.988			0.996	
Flt Protected		0.981			0.992			0.999			0.989	
Satd. Flow (prot)	0	2050	0	0	1654	0	0	3369	0	0	3310	0
Flt Permitted		0.681			0.928			0.923			0.589	
Satd. Flow (perm)	0	1423	0	0	1547	0	0	3113	0	0	1971	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		10			122			10				
Link Speed (mph)		30			40			40				40
Link Distance (ft)		280			324			945				621
Travel Time (s)		6.4			5.5			16.1				10.6
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Adj. Flow (vph)	27	29	12	86	57	363	14	608	54	232	770	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	506	0	0	676	0	0	1026	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		32.0			32.0			48.0			68.0	
Actuated g/C Ratio		0.29			0.29			0.44			0.62	
v/c Ratio		0.16			0.94			0.50			0.73	
Control Delay		24.5			56.0			24.2			18.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.5			56.0			24.2			18.3	
LOS		C			E			C			B	
Approach Delay		24.5			56.0			24.2			18.3	
Approach LOS		C			E			C			B	
Queue Length 50th (ft)		29			266			183			123	
Queue Length 95th (ft)		63			#466			240			201	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		459			575			1363			1400	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.88			0.50			0.73	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 28.6

Intersection LOS: C

Intersection Capacity Utilization 105.5%

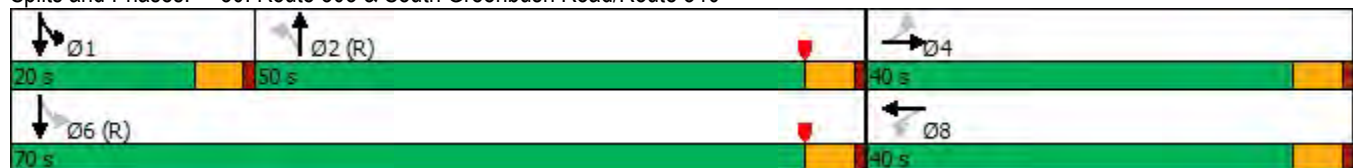
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	7	59	31	227	7	594	64	248	545	20
Future Volume (vph)	26	30	7	59	31	227	7	594	64	248	545	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.986			0.903			0.986			0.996	
Flt Protected		0.980			0.991			0.999			0.985	
Satd. Flow (prot)	0	1877	0	0	1616	0	0	3144	0	0	3139	0
Flt Permitted		0.621			0.929			0.947			0.578	
Satd. Flow (perm)	0	1189	0	0	1515	0	0	2981	0	0	1842	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			121			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	334	0	0	699	0	0	856	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		21.4			21.4			59.8			78.6	
Actuated g/C Ratio		0.19			0.19			0.54			0.71	
v/c Ratio		0.28			0.85			0.43			0.58	
Control Delay		34.3			46.3			17.4			10.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		34.3			46.3			17.4			10.2	
LOS		C			D			B			B	
Approach Delay		34.3			46.3			17.4			10.2	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)		36			150			148			69	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		68			232			240			143	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		382			564			1624			1493	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.59			0.43			0.57	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 19.8

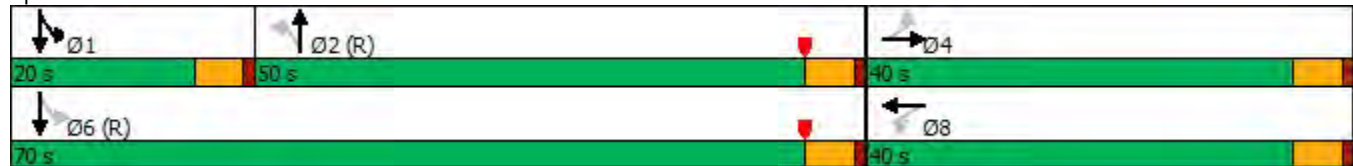
Intersection LOS: B

Intersection Capacity Utilization 93.2%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	19	6	82	37	251	17	591	44	175	653	17
Future Volume (vph)	34	19	6	82	37	251	17	591	44	175	653	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor		1.00			1.00			1.00			1.00	
Frt		0.987			0.908			0.990			0.997	
Flt Protected		0.972			0.989			0.999			0.990	
Satd. Flow (prot)	0	2048	0	0	1675	0	0	3340	0	0	3324	0
Flt Permitted		0.573			0.913			0.919			0.608	
Satd. Flow (perm)	0	1207	0	0	1546	0	0	3073	0	0	2041	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		5			101			8				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)			1	1			1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	0%	0%	3%	0%	4%	0%	5%	5%	3%	4%	19%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	389	0	0	686	0	0	889	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Maximum Green (s)	35.0	35.0		35.0	35.0		45.0	45.0		15.0		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Recall Mode	None	None		None	None		C-Max	C-Max		None		
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0				
Flash Dont Walk (s)	23.0	23.0		19.0	19.0		19.0	19.0				
Pedestrian Calls (#/hr)	1	1		1	1		1	1				
Act Effct Green (s)		26.0			26.0			54.8			74.0	
Actuated g/C Ratio		0.24			0.24			0.50			0.67	
v/c Ratio		0.21			0.88			0.45			0.58	
Control Delay		30.1			50.1			20.4			7.9	
Queue Delay		0.0			0.0			0.0			0.0	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Maximum Green (s)	65.0
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	C-Max
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	1
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		30.1			50.1			20.4			7.9	
LOS		C			D			C			A	
Approach Delay		30.1			50.1			20.4			7.9	
Approach LOS		C			D			C			A	
Queue Length 50th (ft)		32			201			161			27	
Queue Length 95th (ft)		62			294			246			139	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		387			560			1533			1547	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.69			0.45			0.57	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 20.9

Intersection LOS: C

Intersection Capacity Utilization 96.0%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	7	59	31	239	7	599	64	259	552	20
Future Volume (vph)	26	30	7	59	31	239	7	599	64	259	552	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.986			0.902			0.986			0.996	
Flt Protected		0.980			0.991						0.985	
Satd. Flow (prot)	0	1877	0	0	1614	0	0	3147	0	0	3139	0
Flt Permitted		0.618			0.931			0.946			0.573	
Satd. Flow (perm)	0	1183	0	0	1517	0	0	2977	0	0	1826	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			127			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	347	0	0	705	0	0	875	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		22.0			22.0			59.0			78.0	
Actuated g/C Ratio		0.20			0.20			0.54			0.71	
v/c Ratio		0.27			0.86			0.44			0.60	
Control Delay		33.6			46.0			18.0			10.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		33.6			46.0			18.0			10.7	
LOS		C			D			B			B	
Approach Delay		33.6			46.0			18.0			10.7	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)		36			155			152			70	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		68			239			246			155	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		380			569			1603			1474	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.17			0.61			0.44			0.59	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 20.2

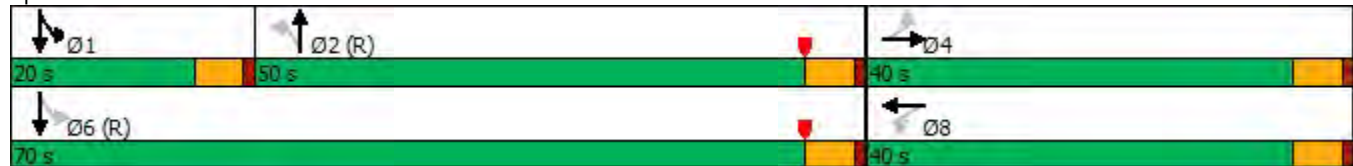
Intersection LOS: C

Intersection Capacity Utilization 94.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	30	11	94	53	357	16	607	50	251	782	22
Future Volume (vph)	26	30	11	94	53	357	16	607	50	251	782	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.978			0.904			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2054	0	0	1655	0	0	3373	0	0	3311	0
Flt Permitted		0.686			0.921			0.906			0.559	
Satd. Flow (perm)	0	1437	0	0	1539	0	0	3059	0	0	1873	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			117			9				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	553	0	0	740	0	0	1159	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		34.7			34.7			45.3			65.3	
Actuated g/C Ratio		0.32			0.32			0.41			0.59	
v/c Ratio		0.16			0.98			0.58			0.89	
Control Delay		24.8			63.4			27.1			26.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.8			63.4			27.1			26.9	
LOS		C			E			C			C	
Approach Delay		24.8			63.4			27.1			26.9	
Approach LOS		C			E			C			C	
Queue Length 50th (ft)		33			319			207			198	
Queue Length 95th (ft)		69			#550			270			#291	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		463			569			1265			1308	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.16			0.97			0.58			0.89	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 34.9

Intersection LOS: C

Intersection Capacity Utilization 112.3%

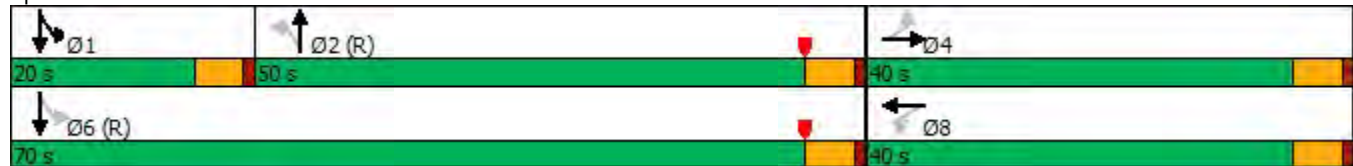
ICU Level of Service H

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	9	72	38	277	9	726	78	303	665	24
Future Volume (vph)	32	37	9	72	38	277	9	726	78	303	665	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.985			0.903			0.986			0.996	
Flt Protected		0.980			0.991			0.999			0.985	
Satd. Flow (prot)	0	1874	0	0	1616	0	0	3144	0	0	3139	0
Flt Permitted		0.624			0.925			0.942			0.532	
Satd. Flow (perm)	0	1193	0	0	1508	0	0	2965	0	0	1695	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			121			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	408	0	0	855	0	0	1044	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		26.6			26.6			53.4			73.4	
Actuated g/C Ratio		0.24			0.24			0.49			0.67	
v/c Ratio		0.28			0.89			0.59			0.79	
Control Delay		31.4			50.1			23.7			19.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		31.4			50.1			23.7			19.0	
LOS		C			D			C			B	
Approach Delay		31.4			50.1			23.7			19.0	
Approach LOS		C			D			C			B	
Queue Length 50th (ft)		43			202			222			140	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		79			303			329			#264	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		383			562			1445			1328	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.73			0.59			0.79	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 26.4

Intersection LOS: C

Intersection Capacity Utilization 102.8%

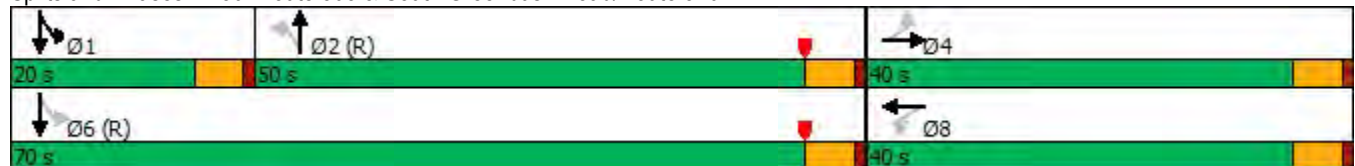
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	13	115	65	419	20	731	61	298	952	27
Future Volume (vph)	32	37	13	115	65	419	20	731	61	298	952	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.979			0.905			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2057	0	0	1658	0	0	3373	0	0	3311	0
Flt Permitted		0.617			0.915			0.883			0.522	
Satd. Flow (perm)	0	1294	0	0	1531	0	0	2981	0	0	1749	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			112			9				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	657	0	0	892	0	0	1403	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effect Green (s)		35.0			35.0			45.0			65.0	
Actuated g/C Ratio		0.32			0.32			0.41			0.59	
v/c Ratio		0.22			1.17			0.73			1.13	
Control Delay		26.3			122.8			31.3			87.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.3			122.8			31.3			87.7	
LOS		C			F			C			F	
Approach Delay		26.3			122.8			31.3			87.7	
Approach LOS		C			F			C			F	
Queue Length 50th (ft)		41			~497			271			~263	
Queue Length 95th (ft)		83			#724			349			m#276	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		417			563			1224			1246	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			1.17			0.73			1.13	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 76.9

Intersection LOS: E

Intersection Capacity Utilization 124.8%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

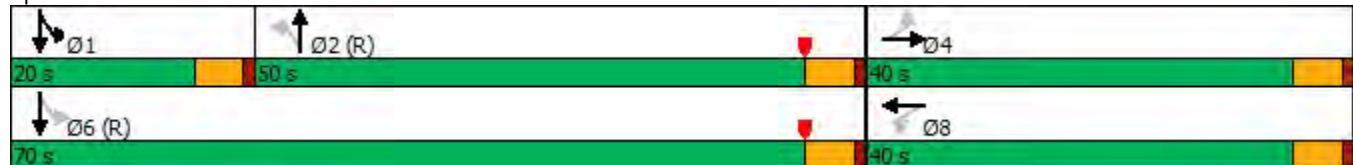
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	9	72	38	289	9	731	78	314	672	24
Future Volume (vph)	32	37	9	72	38	289	9	731	78	314	672	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor								1.00			1.00	
Frt		0.985			0.902			0.986			0.996	
Flt Protected		0.980			0.991			0.999			0.985	
Satd. Flow (prot)	0	1874	0	0	1614	0	0	3144	0	0	3139	0
Flt Permitted		0.621			0.927			0.941			0.529	
Satd. Flow (perm)	0	1187	0	0	1510	0	0	2962	0	0	1686	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		6			126			12				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	21%	7%	0%	12%	3%	6%	17%	11%	10%	8%	10%	17%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	82	0	0	420	0	0	860	0	0	1063	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effct Green (s)		27.1			27.1			52.9			72.9	
Actuated g/C Ratio		0.25			0.25			0.48			0.66	
v/c Ratio		0.28			0.90			0.60			0.81	
Control Delay		31.1			50.2			24.2			20.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		31.1			50.2			24.2			20.3	
LOS		C			D			C			C	
Approach Delay		31.1			50.2			24.2			20.3	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)		43			207			227			156	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		79			314			332			#287	
Internal Link Dist (ft)		200			244			865			541	
Turn Bay Length (ft)												
Base Capacity (vph)		381			566			1430			1315	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			0.74			0.60			0.81	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 27.2

Intersection LOS: C

Intersection Capacity Utilization 104.0%

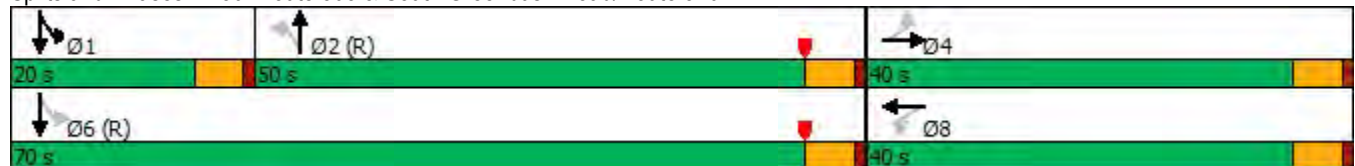
ICU Level of Service G

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	37	13	115	65	433	20	739	61	305	954	27
Future Volume (vph)	32	37	13	115	65	433	20	739	61	305	954	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	12	12	12	11	11	11	11	11	11
Grade (%)		-2%			-3%			-3%			-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.979			0.905			0.989			0.997	
Flt Protected		0.981			0.991			0.999			0.988	
Satd. Flow (prot)	0	2057	0	0	1657	0	0	3373	0	0	3311	0
Flt Permitted		0.609			0.917			0.883			0.519	
Satd. Flow (perm)	0	1277	0	0	1534	0	0	2981	0	0	1739	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		9			116			9				
Link Speed (mph)		30			40			40			40	
Link Distance (ft)		280			324			945			621	
Travel Time (s)		6.4			5.5			16.1			10.6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	0%	0%	1%	6%	5%	0%	4%	2%	4%	4%	20%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	673	0	0	901	0	0	1413	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		custom	NA	
Protected Phases		4			8			2		1	16	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	16	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		45.0	45.0		5.0		
Minimum Split (s)	10.0	10.0		10.0	10.0		50.0	50.0		10.0		
Total Split (s)	40.0	40.0		40.0	40.0		50.0	50.0		20.0		
Total Split (%)	36.4%	36.4%		36.4%	36.4%		45.5%	45.5%		18.2%		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0		
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		5.0			5.0			5.0				
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Recall Mode	None	None		None	None		C-Min	C-Min		None		
Act Effect Green (s)		35.0			35.0			45.0			65.0	
Actuated g/C Ratio		0.32			0.32			0.41			0.59	
v/c Ratio		0.22			1.19			0.74			1.14	
Control Delay		26.4			130.2			31.6			92.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		26.4			130.2			31.6			92.9	
LOS		C			F			C			F	
Approach Delay		26.4			130.2			31.6			92.9	
Approach LOS		C			F			C			F	
Queue Length 50th (ft)		41			~516			275			~272	
Queue Length 95th (ft)		83			#744			354			m#276	
Internal Link Dist (ft)		200			244			865			541	

Lane Group	Ø6
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	6
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	45.0
Minimum Split (s)	50.0
Total Split (s)	70.0
Total Split (%)	64%
Yellow Time (s)	4.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)												
Base Capacity (vph)		412			567			1224			1241	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.22			1.19			0.74			1.14	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay: 81.2

Intersection LOS: F

Intersection Capacity Utilization 125.9%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

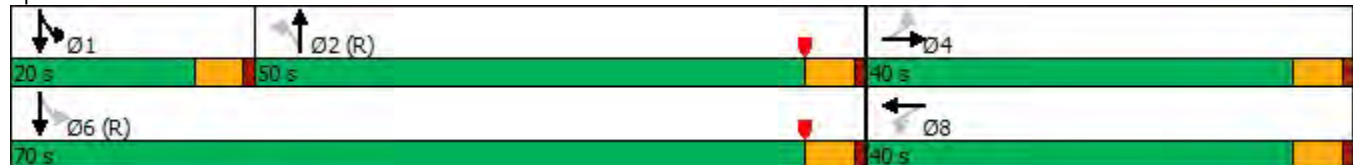
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 30: Route 303 & South Greenbush Road/Route 340



Lane Group	Ø6
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	21	39	566	580	50
Future Vol, veh/h	24	21	39	566	580	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	25	22	41	596	611	53

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1018	332	664
Stage 1	638	-	-
Stage 2	380	-	-
Critical Hdwy	6.6	7.16	4.36
Critical Hdwy Stg 1	5.6	-	-
Critical Hdwy Stg 2	5.6	-	-
Follow-up Hdwy	4	3.73	2.33
Pot Cap-1 Maneuver	232	589	851
Stage 1	466	-	-
Stage 2	611	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	215	589	851
Mov Cap-2 Maneuver	215	-	-
Stage 1	432	-	-
Stage 2	611	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.9	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	851	-	306	-	-
HCM Lane V/C Ratio	0.048	-	0.155	-	-
HCM Control Delay (s)	9.4	0.3	18.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	55	10	734	785	19
Future Vol, veh/h	38	55	10	734	785	19
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	41	59	11	789	844	20
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1272	433	865	0	-	0
Stage 1	855	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	202	563	460	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	563	460	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	416	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	21.6	0.5		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	460	-	316	-	-	
HCM Lane V/C Ratio	0.023	-	0.316	-	-	
HCM Control Delay (s)	13	0.3	21.6	-	-	
HCM Lane LOS	B	A	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	1.3	-	-	

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	34	90	619	641	83
Future Vol, veh/h	33	34	90	619	641	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	35	36	95	652	675	87
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1235	381	762	0	-	0
Stage 1	719	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Critical Hdwy	6.6	7.16	4.36	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	4	3.73	2.33	-	-	-
Pot Cap-1 Maneuver	172	548	778	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	548	778	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	345	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	28.3		2		0	
HCM LOS	D					
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	SBT	SBR
Capacity (veh/h)	778		-	224	-	-
HCM Lane V/C Ratio	0.122		-	0.315	-	-
HCM Control Delay (s)	10.3		0.8	28.3	-	-
HCM Lane LOS	B		A	D	-	-
HCM 95th %tile Q(veh)	0.4		-	1.3	-	-

Intersection

Int Delay, s/veh 4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	94	23	802	835	27
Future Vol, veh/h	65	94	23	802	835	27
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	70	101	25	862	898	29

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1395	465	928	0	-	0
Stage 1	914	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	173	538	427	-	-	-
Stage 1	410	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	153	538	427	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	364	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	40.3	1.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	427	-	265	-	-
HCM Lane V/C Ratio	0.058	-	0.645	-	-
HCM Control Delay (s)	13.9	0.7	40.3	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.2	-	4.1	-	-

Intersection

Int Delay, s/veh 2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	34	90	639	662	83
Future Vol, veh/h	33	34	90	639	662	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	35	36	95	673	697	87

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1268	392	784	0	-	0
Stage 1	741	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Critical Hdwy	6.6	7.16	4.36	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	4	3.73	2.33	-	-	-
Pot Cap-1 Maneuver	164	539	762	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	131	539	762	-	-	-
Mov Cap-2 Maneuver	131	-	-	-	-	-
Stage 1	334	-	-	-	-	-
Stage 2	524	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30	2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	762	-	213	-	-
HCM Lane V/C Ratio	0.124	-	0.331	-	-
HCM Control Delay (s)	10.4	0.8	30	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	-	-

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	94	23	816	861	27
Future Vol, veh/h	65	94	23	816	861	27
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	70	101	25	877	926	29

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1431	479	956	0	-	0
Stage 1	942	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	165	528	413	-	-	-
Stage 1	399	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	145	528	413	-	-	-
Mov Cap-2 Maneuver	145	-	-	-	-	-
Stage 1	352	-	-	-	-	-
Stage 2	615	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	44.1	1.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	413	-	254	-	-
HCM Lane V/C Ratio	0.06	-	0.673	-	-
HCM Control Delay (s)	14.3	0.8	44.1	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.2	-	4.4	-	-

Intersection

Int Delay, s/veh 4.1

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 40 41 110 755 783 101

Future Vol, veh/h 40 41 110 755 783 101

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % -6 - - -1 -3 -

Peak Hour Factor 95 95 95 95 95 95

Heavy Vehicles, % 50 43 13 28 12 10

Mvmt Flow 42 43 116 795 824 106

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1507 465 930 0 - 0

Stage 1 877 - - - - -

Stage 2 630 - - - - -

Critical Hdwy 6.6 7.16 4.36 - - -

Critical Hdwy Stg 1 5.6 - - - - -

Critical Hdwy Stg 2 5.6 - - - - -

Follow-up Hdwy 4 3.73 2.33 - - -

Pot Cap-1 Maneuver 117 482 667 - - -

Stage 1 360 - - - - -

Stage 2 470 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 81 482 667 - - -

Mov Cap-2 Maneuver 81 - - - - -

Stage 1 248 - - - - -

Stage 2 470 - - - - -

Approach EB NB SB

HCM Control Delay, s 64.3 2.7 0

HCM LOS F

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 667 - 140 - -

HCM Lane V/C Ratio 0.174 - 0.609 - -

HCM Control Delay (s) 11.5 1.4 64.3 - -

HCM Lane LOS B A F - -

HCM 95th %tile Q(veh) 0.6 - 3.2 - -

Intersection						
Int Delay, s/veh	16.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	79	115	28	980	1020	33
Future Vol, veh/h	79	115	28	980	1020	33
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	24	20	70	15	16	53
Mvmt Flow	85	124	30	1054	1097	35
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1703	567	1133	0	-	0
Stage 1	1116	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.08	6.7	5.5	-	-	-
Critical Hdwy Stg 1	5.08	-	-	-	-	-
Critical Hdwy Stg 2	5.08	-	-	-	-	-
Follow-up Hdwy	3.74	3.5	2.9	-	-	-
Pot Cap-1 Maneuver	116	466	335	-	-	-
Stage 1	337	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	91	466	335	-	-	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	264	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	185.2	2.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	335	-	174	-	-	
HCM Lane V/C Ratio	0.09	-	1.199	-	-	
HCM Control Delay (s)	16.8	1.7	185.2	-	-	
HCM Lane LOS	C	A	F	-	-	
HCM 95th %tile Q(veh)	0.3	-	11.3	-	-	

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	41	110	775	804	101
Future Vol, veh/h	40	41	110	775	804	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	-1	-3	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	50	43	13	28	12	10
Mvmt Flow	42	43	116	816	846	106
Major/Minor						
	Minor2	Major1		Major2		
Conflicting Flow All	1539	476	952	0	-	0
Stage 1	899	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Critical Hdwy	6.6	7.16	4.36	-	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	4	3.73	2.33	-	-	-
Pot Cap-1 Maneuver	112	474	653	-	-	-
Stage 1	351	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	76	474	653	-	-	-
Mov Cap-2 Maneuver	76	-	-	-	-	-
Stage 1	237	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Approach						
	EB	NB		SB		
HCM Control Delay, s	72.1	2.8		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	653	-	132	-	-	
HCM Lane V/C Ratio	0.177	-	0.646	-	-	
HCM Control Delay (s)	11.7	1.5	72.1	-	-	
HCM Lane LOS	B	A	F	-	-	
HCM 95th %tile Q(veh)	0.6	-	3.4	-	-	

Intersection

Int Delay, s/veh 19.3

Movement EBL EBR NBL NBT SBT SBRLane Configurations 

Traffic Vol, veh/h 79 115 28 994 1046 33

Future Vol, veh/h 79 115 28 994 1046 33

Conflicting Peds, #/hr 0 0 1 0 0 1

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % -6 - - -1 -3 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 24 20 70 15 16 53

Mvmt Flow 85 124 30 1069 1125 35

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1739 581 1161 0 - 0

Stage 1 1144 - - - - -

Stage 2 595 - - - - -

Critical Hdwy 6.08 6.7 5.5 - - -

Critical Hdwy Stg 1 5.08 - - - - -

Critical Hdwy Stg 2 5.08 - - - - -

Follow-up Hdwy 3.74 3.5 2.9 - - -

Pot Cap-1 Maneuver 110 457 324 - - -

Stage 1 327 - - - - -

Stage 2 557 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 85 457 324 - - -

Mov Cap-2 Maneuver 85 - - - - -

Stage 1 252 - - - - -

Stage 2 556 - - - - -

Approach EB NB SB

HCM Control Delay, s 215.9 2.3 0

HCM LOS F

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 324 - 164 - -

HCM Lane V/C Ratio 0.093 - 1.272 - -

HCM Control Delay (s) 17.2 1.9 215.9 - -

HCM Lane LOS C A F - -

HCM 95th %tile Q(veh) 0.3 - 12.1 - -

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	729	675	21
Future Vol, veh/h	0	23	0	729	675	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	17	14	14
Mvmt Flow	0	24	0	776	718	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	370	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	633	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	633	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.9	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 633		-	-		
HCM Lane V/C Ratio	- 0.039		-	-		
HCM Control Delay (s)	- 10.9		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.1		-	-		

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	839	929	26
Future Vol, veh/h	0	13	0	839	929	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	10	6	19
Mvmt Flow	0	14	0	874	968	27

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	- 498	- 0	- 0
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.9	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.3	- -	- -
Pot Cap-1 Maneuver	0 523	0 -	- -
Stage 1	0 -	0 -	- -
Stage 2	0 -	0 -	- -
Platoon blocked, %		- -	- -
Mov Cap-1 Maneuver	- 523	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 523	- -	- -
HCM Lane V/C Ratio	- 0.026	- -	- -
HCM Control Delay (s)	- 12.1	- -	- -
HCM Lane LOS	- B	- -	- -
HCM 95th %tile Q(veh)	- 0.1	- -	- -

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↗	↗	
Traffic Vol, veh/h	0	23	0	885	824	21
Future Vol, veh/h	0	23	0	885	824	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	17	14	14
Mvmt Flow	0	24	0	941	877	22
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	450	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	562	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	562	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	11.7	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR		
Capacity (veh/h)	-	562	-	-		
HCM Lane V/C Ratio	-	0.044	-	-		
HCM Control Delay (s)	-	11.7	-	-		
HCM Lane LOS	-	B	-	-		
HCM 95th %tile Q(veh)	-	0.1	-	-		

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	1022	1135	26
Future Vol, veh/h	0	13	0	1022	1135	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	4	2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	10	6	19
Mvmt Flow	0	14	0	1065	1182	27
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	-	605	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	446	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	446	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.3	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT EBLn1		SBT	SBR		
Capacity (veh/h)	- 446		-	-		
HCM Lane V/C Ratio	- 0.03		-	-		
HCM Control Delay (s)	- 13.3		-	-		
HCM Lane LOS	- B		-	-		
HCM 95th %tile Q(veh)	- 0.1		-	-		

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	223	236	35	32	6
Future Vol, veh/h	6	223	236	35	32	6
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, %	-	-8	6	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	16	12	0	13	0
Mvmt Flow	7	242	257	38	35	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	295	0	0 532 276
Stage 1	-	-	- 276 -
Stage 2	-	-	- 256 -
Critical Hdwy	4.1	-	- 6.53 6.2
Critical Hdwy Stg 1	-	-	- 5.53 -
Critical Hdwy Stg 2	-	-	- 5.53 -
Follow-up Hdwy	2.2	-	- 3.617 3.3
Pot Cap-1 Maneuver	1278	-	- 490 768
Stage 1	-	-	- 746 -
Stage 2	-	-	- 762 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1278	-	- 487 768
Mov Cap-2 Maneuver	-	-	- 487 -
Stage 1	-	-	- 742 -
Stage 2	-	-	- 762 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1278	-	-	-	517
HCM Lane V/C Ratio	0.005	-	-	-	0.08
HCM Control Delay (s)	7.8	0	-	-	12.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	182	249	43	20	3
Future Vol, veh/h	7	182	249	43	20	3
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, %	-	-8	6	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	11	3	0	15	0
Mvmt Flow	8	212	290	50	23	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	340	0	-	0	543	315
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	4.1	-	-	-	6.55	6.2
Critical Hdwy Stg 1	-	-	-	-	5.55	-
Critical Hdwy Stg 2	-	-	-	-	5.55	-
Follow-up Hdwy	2.2	-	-	-	3.635	3.3
Pot Cap-1 Maneuver	1230	-	-	-	479	730
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1230	-	-	-	476	730
Mov Cap-2 Maneuver	-	-	-	-	476	-
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	780	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		12.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1230	-	-	-	499	
HCM Lane V/C Ratio	0.007	-	-	-	0.054	
HCM Control Delay (s)	7.9	0	-	-	12.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	272	288	35	32	6
Future Vol, veh/h	6	272	288	35	32	6
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, %	-	-8	6	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	16	12	0	13	0
Mvmt Flow	7	296	313	38	35	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	351	0	0 642 332
Stage 1	-	-	- 332 -
Stage 2	-	-	- 310 -
Critical Hdwy	4.1	-	- 6.53 6.2
Critical Hdwy Stg 1	-	-	- 5.53 -
Critical Hdwy Stg 2	-	-	- 5.53 -
Follow-up Hdwy	2.2	-	- 3.617 3.3
Pot Cap-1 Maneuver	1219	-	- 421 714
Stage 1	-	-	- 703 -
Stage 2	-	-	- 719 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1219	-	- 418 714
Mov Cap-2 Maneuver	-	-	- 418 -
Stage 1	-	-	- 698 -
Stage 2	-	-	- 719 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1219	-	-	-	447
HCM Lane V/C Ratio	0.005	-	-	-	0.092
HCM Control Delay (s)	8	0	-	-	13.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection

Int Delay, s/veh 0.6

Movement EBL EBT WBT WBR SBL SBRLane Configurations 

Traffic Vol, veh/h 7 222 304 43 20 3

Future Vol, veh/h 7 222 304 43 20 3

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, % - -8 6 - 0 -

Peak Hour Factor 86 86 86 86 86 86

Heavy Vehicles, % 0 11 3 0 15 0

Mvmt Flow 8 258 353 50 23 3

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 403 0 - 0 652 378

Stage 1 - - - - 378 -

Stage 2 - - - - 274 -

Critical Hdwy 4.1 - - - 6.55 6.2

Critical Hdwy Stg 1 - - - - 5.55 -

Critical Hdwy Stg 2 - - - - 5.55 -

Follow-up Hdwy 2.2 - - - 3.635 3.3

Pot Cap-1 Maneuver 1167 - - - 413 673

Stage 1 - - - - 665 -

Stage 2 - - - - 743 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 1167 - - - 410 673

Mov Cap-2 Maneuver - - - - 410 -

Stage 1 - - - - 660 -

Stage 2 - - - - 743 -

Approach EB WB SB

HCM Control Delay, s 0.2 0 13.9

HCM LOS B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 1167 - - - 432

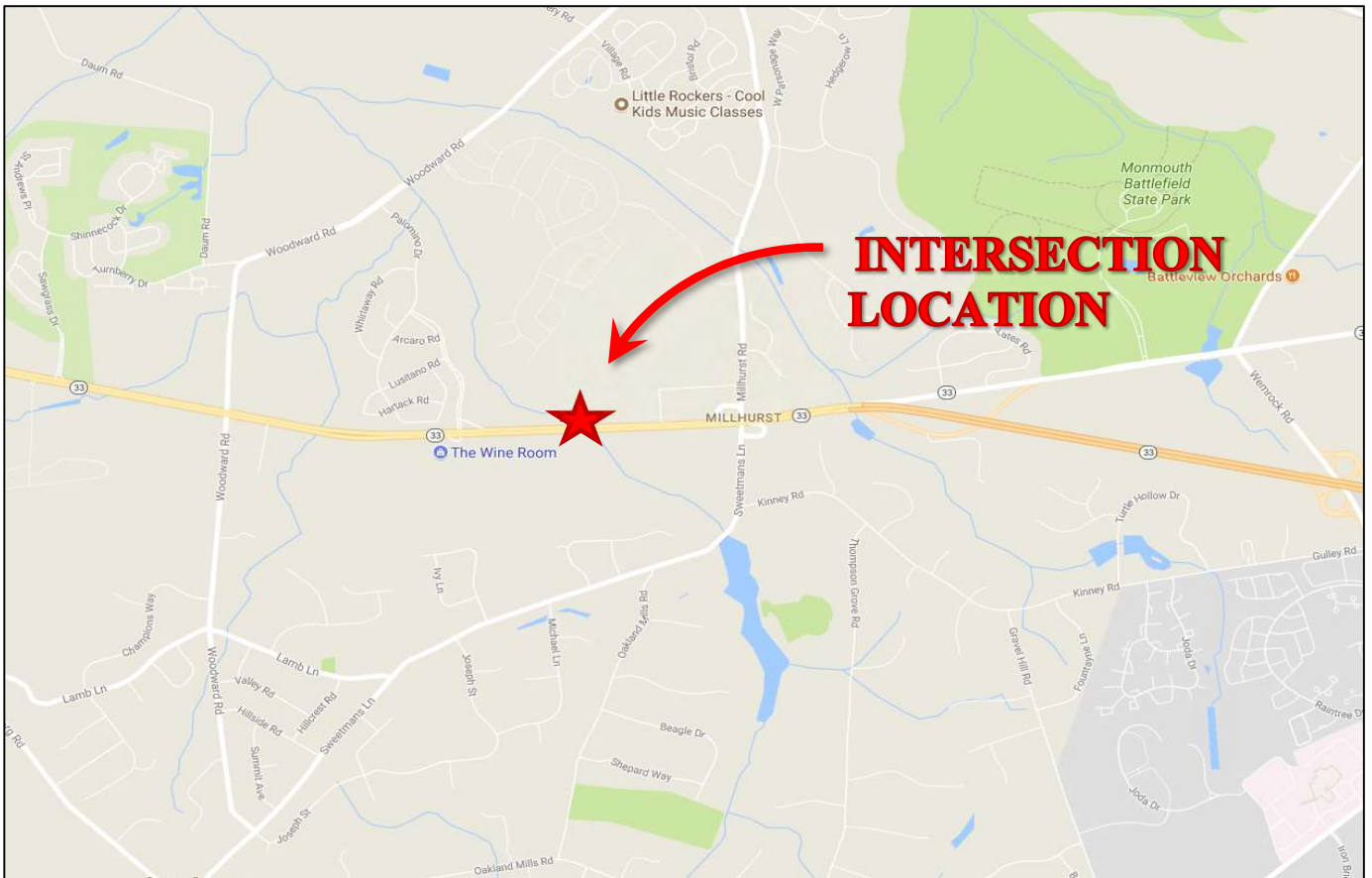
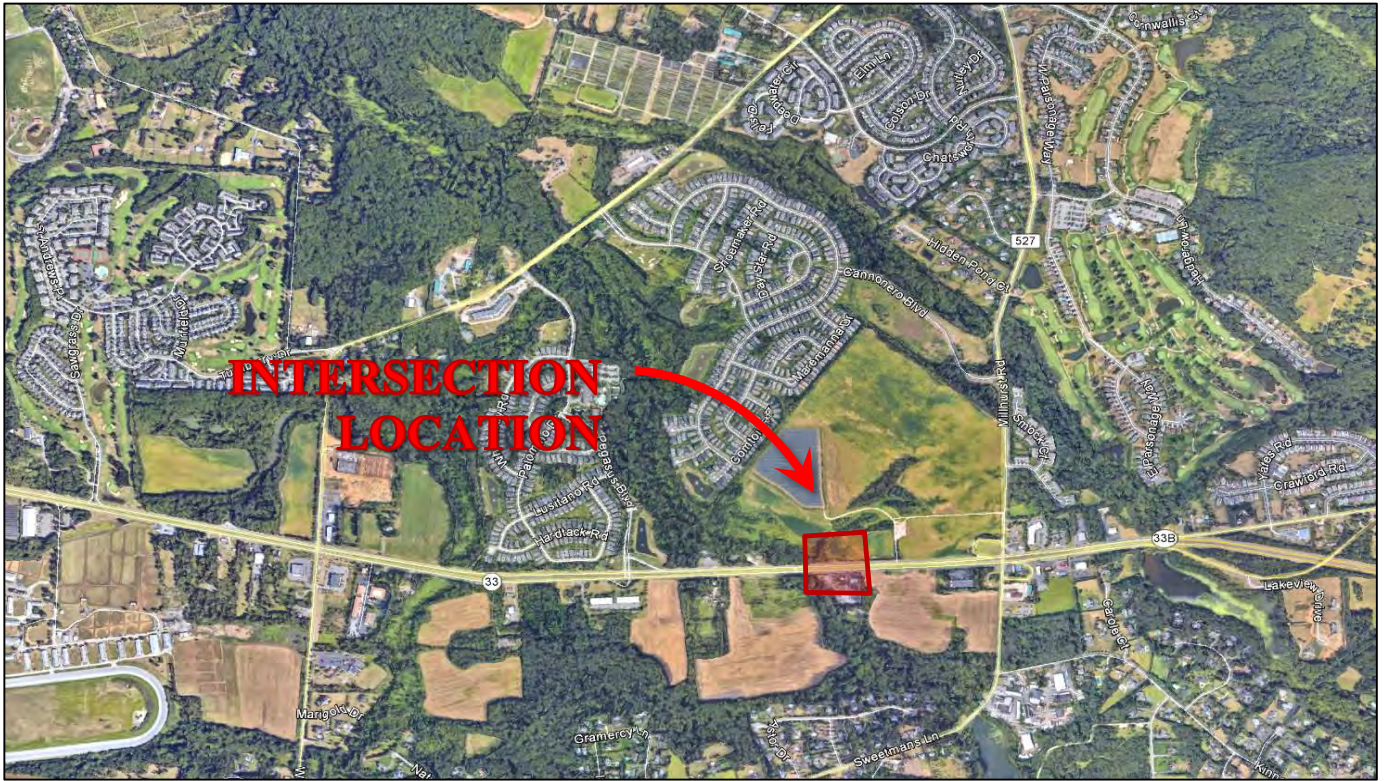
HCM Lane V/C Ratio 0.007 - - - 0.062

HCM Control Delay (s) 8.1 0 - - 13.9

HCM Lane LOS A A - - B

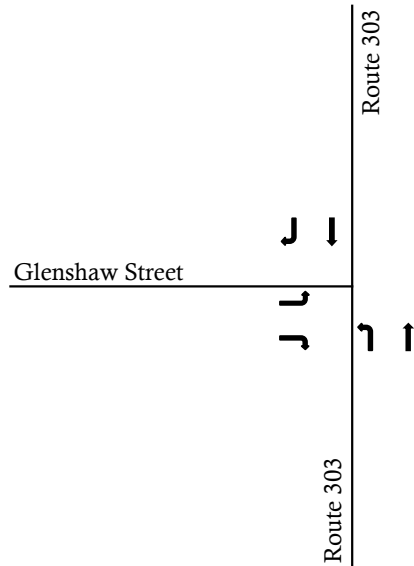
HCM 95th %tile Q(veh) 0 - - - 0.2

Appendix G
Alternate Traffic Signal Warrant Analysis



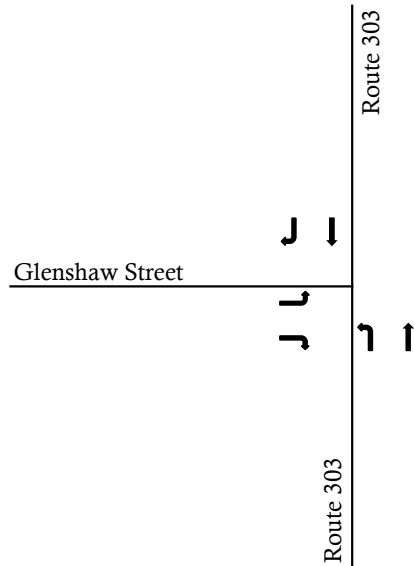
Route 303 & Glenshaw Street
Signal Warrant Analysis
2686-99-013T

Intersection Location Map



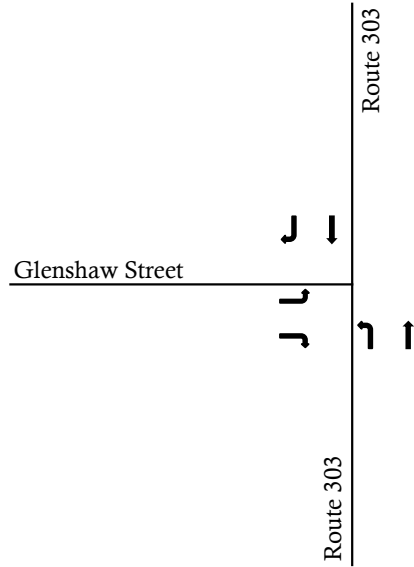
	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	8	0	8	37	478	0	0	465	38
9:00 AM	23	0	22	43	479	0	0	561	43
5:00 PM	30	0	32	9	696	0	0	652	18
6:00 PM	32	0	74	9	573	0	0	714	6





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	8	0	8	38	488	0	0	474	39
9:00 AM	23	0	22	44	489	0	0	572	44
5:00 PM	31	0	33	9	710	0	0	665	18
6:00 PM	33	0	75	9	584	0	0	728	6





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	10	0	10	46	595	0	0	578	48
9:00 AM	28	0	27	54	597	0	0	698	54
5:00 PM	38	0	40	11	866	0	0	811	22
6:00 PM	40	0	92	11	713	0	0	888	7



Trip Generation

Land Use	Trip Type	Trips		
		In	Out	Total
175,760 SF High-Cube Parcel Hub Warehouse	Cars	371	370	741

	Temp. Dist	Total Trips	In-Out %		Car Trips	
	Total		In	Out	In	Out
Weekday						
8:00 AM	6.9%	51	50.0%	50.0%	26	25
9:00 AM	11.3%	84	46.6%	53.4%	39	45
5:00 PM	6.9%	51	65.7%	34.3%	34	17
6:00 PM	10.2%	76	66.5%	33.5%	50	26



Route 303 & Glenshaw Street
Signal Warrant Analysis
2686-99-013T

Figure 5

Temporal Distribution (Cars)

Trip Distribution

		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Cars	IN	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%
	OUT	0.0%	0.0%	0.0%	0.0%	30.0%	0.0%	0.0%	0.0%	0.0%

		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday										
8:00 AM		0	0	0	0	8	0	0	8	0
9:00 AM		0	0	0	0	13	0	0	12	0
5:00 PM		0	0	0	0	5	0	0	10	0
6:00 PM		0	0	0	0	8	0	0	15	0



Trip Generation

Land Use	Trip Type	Trips		
		In	Out	Total
175,760 SF High-Cube Parcel Hub Warehouse	Trucks	37	36	73

	Temp. Dist	Total Trips	In-Out %		Truck Trips	
	Total		In	Out	In	Out
Weekday						
8:00 AM	5.5%	4	34.4%	65.6%	1	3
9:00 AM	9.9%	7	49.2%	50.8%	4	3
5:00 PM	3.9%	3	36.6%	63.4%	1	2
6:00 PM	0.0%	0	50.0%	50.0%	0	0



Route 303 & Glenshaw Street
Signal Warrant Analysis
2686-99-013T

Figure 7

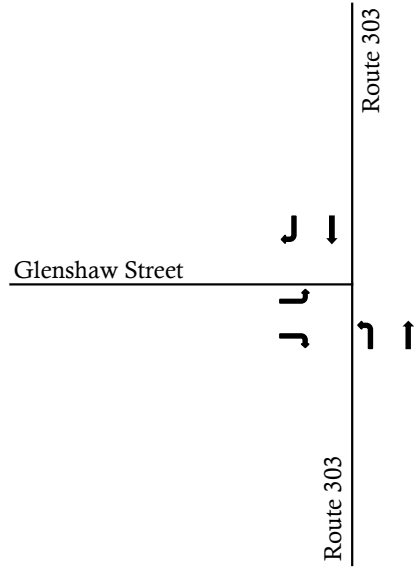
Temporal Distribution (Trucks)

Trip Distribution

		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Trucks	IN	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
	OUT	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%

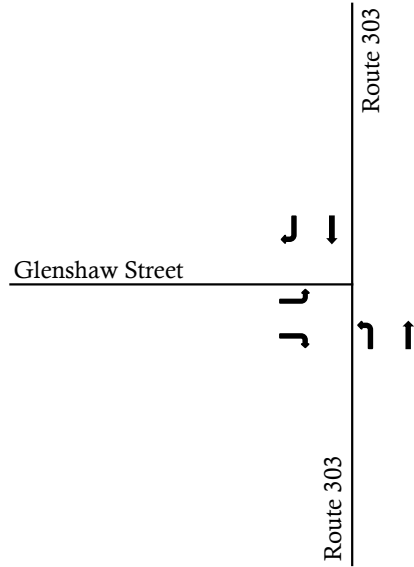
		Glenshaw Street			Route 303					
		Eastbound			Northbound			Southbound		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday										
8:00 AM		0	0	0	0	3	0	0	1	0
9:00 AM		0	0	0	0	3	0	0	4	0
5:00 PM		0	0	0	0	2	0	0	1	0
6:00 PM		0	0	0	0	0	0	0	0	0





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	0	0	0	0	11	0	0	9	0
9:00 AM	0	0	0	0	16	0	0	16	0
5:00 PM	0	0	0	0	7	0	0	11	0
6:00 PM	0	0	0	0	8	0	0	15	0





	Glenshaw Street			Route 303					
	Eastbound			Northbound			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Weekday									
8:00 AM	10	0	10	46	606	0	0	587	48
9:00 AM	28	0	27	54	613	0	0	714	54
5:00 PM	38	0	40	11	873	0	0	822	22
6:00 PM	40	0	92	11	721	0	0	903	7



DYNAMIC
TRAFFIC

Time	Weekday Volumes			
	Major Road		Minor Road	
	NB	SB	EB	0
12:00 AM	0	0	0	0
1:00 AM	0	0	0	0
2:00 AM	0	0	0	0
3:00 AM	0	0	0	0
4:00 AM	0	0	0	0
5:00 AM	0	0	0	0
6:00 AM	0	0	0	0
7:00 AM	0	0	0	0
8:00 AM	652	635	20	0
9:00 AM	667	768	55	0
10:00 AM	0	0	0	0
11:00 AM	0	0	0	0
12:00 PM	0	0	0	0
1:00 PM	0	0	0	0
2:00 PM	0	0	0	0
3:00 PM	0	0	0	0
4:00 PM	0	0	0	0
5:00 PM	884	844	78	0
6:00 PM	732	910	132	0
7:00 PM	0	0	0	0
8:00 PM	0	0	0	0
9:00 PM	0	0	0	0
10:00 PM	0	0	0	0
11:00 PM	0	0	0	0
Lanes	2	2	1	0
Speed	40	40	30	0

	Warrant Summary			
Warrant	1A	1B	2	3
% Criteria	100	100	100	100
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	YES	NO	NO
	NO	YES	YES	YES
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
	NO	NO	NO	NO
Hours Met	0	2	1	1
Satisfied?	NO	NO	NO	YES

Based upon the Traffic Signal Warrants described in Chapter 4C of the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition, published by the Federal Highway Administration (FHWA).

Traffic Signal Warrant Analysis

Intersection: Route 303 & Glenshaw Street
 Location: Orangetown Town, Rockland County, NJ
 Prepared By: J. Pesce
 Date: 10/4/2022
 Job #: 2686-99-013T



Warrant 1, Eight-Hour Vehicular Volume (Conditions A and B)

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% ^a	80% ^b	70% ^c	56% ^d	100% ^a	80% ^b	70% ^c	56% ^d
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

^a Basic minimum hourly volume

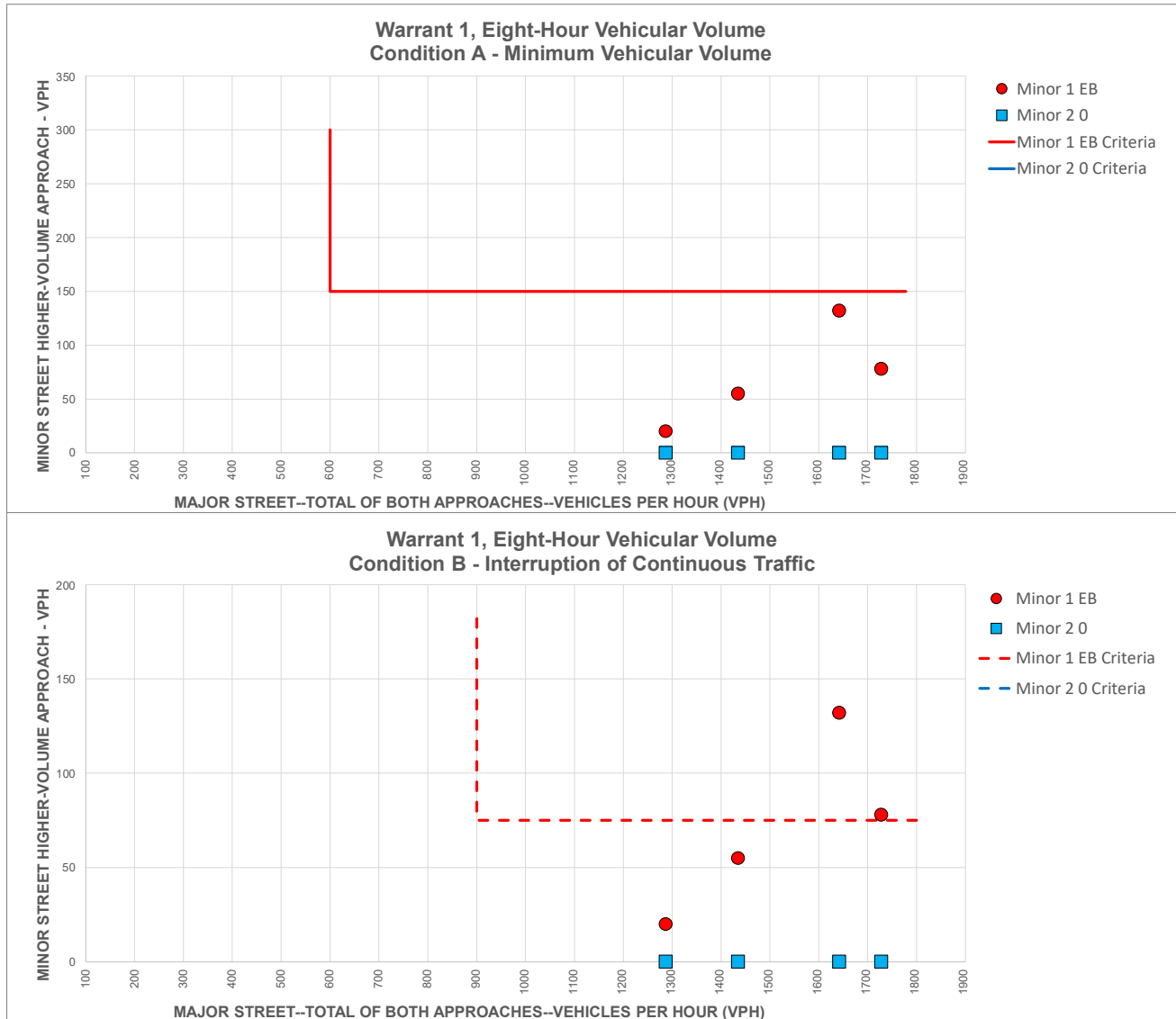
^b Used for combination of Conditions A and B after adequate trial of other remedial measures

^c May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

^d May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

Volumes				Condition A Criteria						WARRANT SATISFIED ?	Condition B Criteria						WARRANT SATISFIED ?
Time	Major TOTAL	Minor EB	Minor O	Major	Minor 1	Satisfied?	Major	Minor 2	Satisfied?		Major	Minor 1	Satisfied?	Major	Minor 2	Satisfied?	
12:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
1:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
2:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
3:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
4:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
5:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
6:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
7:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
8:00 AM	1287	20	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
9:00 AM	1435	55	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
10:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
11:00 AM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
12:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
1:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
2:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
3:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
4:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
5:00 PM	1728	78	0	600	150	No	-	-	No	NO	900	75	Yes	-	-	No	YES
6:00 PM	1642	132	0	600	150	No	-	-	No	NO	900	75	Yes	-	-	No	YES
7:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
8:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
9:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
10:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
11:00 PM	0	0	0	600	150	No	-	-	No	NO	900	75	No	-	-	No	NO
Lanes	2	1	0	Hours Met						0	Hours Met						2
Speed	40	30	0	Satisfied?						NO	Satisfied?						NO

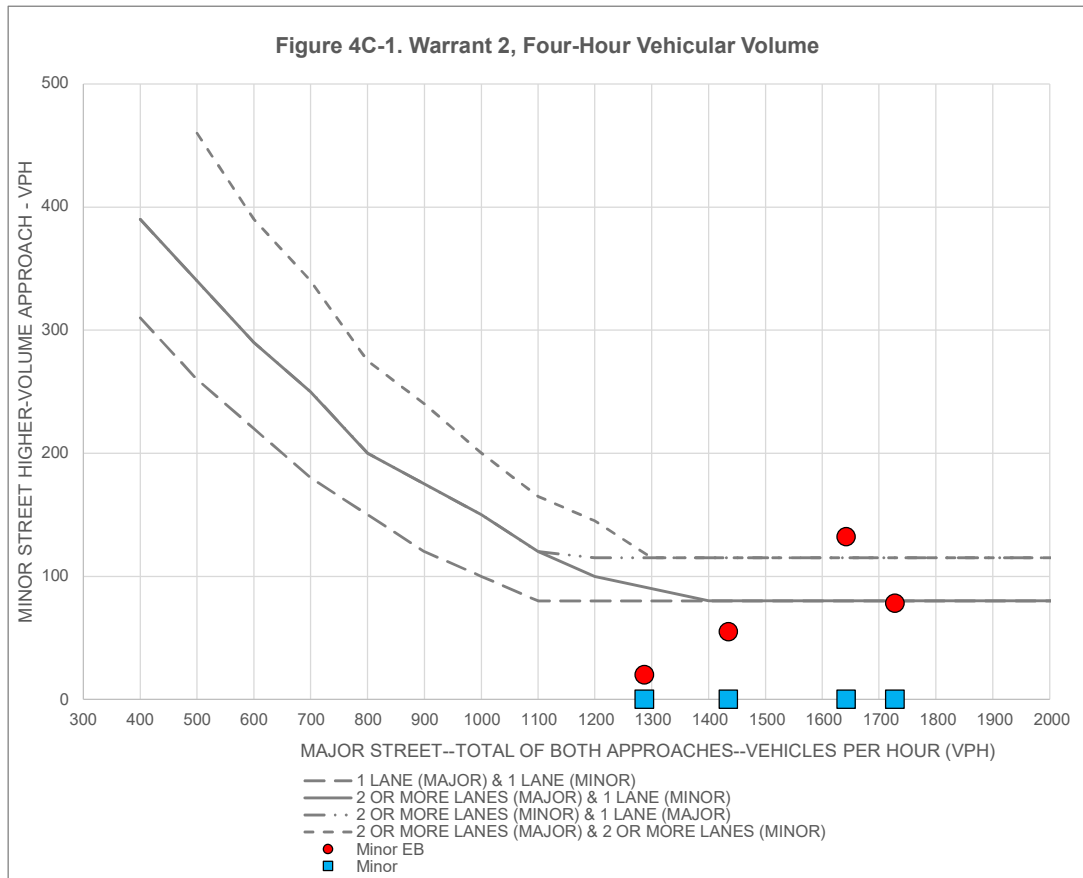
Warrant 1, Eight-Hour Vehicular Volume
(Conditions A and B)



Warrant 2 - Four-Hour Vehicular Volume

(100% Thresholds)

Time	Volumes							WARRANT SATISFIED?
	Major (Total)	Minor EB	Threshold	Satisfied?	Minor	Threshold	Satisfied?	
12:00 AM	0	0	-	No	0	-	No	NO
1:00 AM	0	0	-	No	0	-	No	NO
2:00 AM	0	0	-	No	0	-	No	NO
3:00 AM	0	0	-	No	0	-	No	NO
4:00 AM	0	0	-	No	0	-	No	NO
5:00 AM	0	0	-	No	0	-	No	NO
6:00 AM	0	0	-	No	0	-	No	NO
7:00 AM	0	0	-	No	0	-	No	NO
8:00 AM	1287	20	91	No	0	91	No	NO
9:00 AM	1435	55	80	No	0	80	No	NO
10:00 AM	0	0	-	No	0	-	No	NO
11:00 AM	0	0	-	No	0	-	No	NO
12:00 PM	0	0	-	No	0	-	No	NO
1:00 PM	0	0	-	No	0	-	No	NO
2:00 PM	0	0	-	No	0	-	No	NO
3:00 PM	0	0	-	No	0	-	No	NO
4:00 PM	0	0	-	No	0	-	No	NO
5:00 PM	1728	78	80	No	0	80	No	NO
6:00 PM	1642	132	80	Yes	0	80	No	YES
7:00 PM	0	0	-	No	0	-	No	NO
8:00 PM	0	0	-	No	0	-	No	NO
9:00 PM	0	0	-	No	0	-	No	NO
10:00 PM	0	0	-	No	0	-	No	NO
11:00 PM	0	0	-	No	0	-	No	NO
Lanes	2	1			0			1
Speed	40	30			0		Satisfied?	No



Warrant 3 - Peak Hour Vehicular Volume

(100% Thresholds)

Time	Volumes							WARRANT SATISFIED ?
	Major (Total)	Minor EB	Threshold	Satisfied?	Minor	Threshold	Satisfied?	
12:00 AM	0	0	-	No	0	-	No	NO
1:00 AM	0	0	-	No	0	-	No	NO
2:00 AM	0	0	-	No	0	-	No	NO
3:00 AM	0	0	-	No	0	-	No	NO
4:00 AM	0	0	-	No	0	-	No	NO
5:00 AM	0	0	-	No	0	-	No	NO
6:00 AM	0	0	-	No	0	-	No	NO
7:00 AM	0	0	-	No	0	-	No	NO
8:00 AM	1287	20	194	No	0	194	No	NO
9:00 AM	1435	55	152	No	0	152	No	NO
10:00 AM	0	0	-	No	0	-	No	NO
11:00 AM	0	0	-	No	0	-	No	NO
12:00 PM	0	0	-	No	0	-	No	NO
1:00 PM	0	0	-	No	0	-	No	NO
2:00 PM	0	0	-	No	0	-	No	NO
3:00 PM	0	0	-	No	0	-	No	NO
4:00 PM	0	0	-	No	0	-	No	NO
5:00 PM	1728	78	100	No	0	100	No	NO
6:00 PM	1642	132	112	Yes	0	112	No	YES
7:00 PM	0	0	-	No	0	-	No	NO
8:00 PM	0	0	-	No	0	-	No	NO
9:00 PM	0	0	-	No	0	-	No	NO
10:00 PM	0	0	-	No	0	-	No	NO
11:00 PM	0	0	-	No	0	-	No	NO
Lanes	2	1			0			1
Speed	40	30			0		Satisfied?	Yes

Figure 4C-3. Warrant 3, Peak Hour

