
Blackwell C-Store
Traffic Impact Study
Lee's Summit, Missouri

May 11th, 2026



Prepared by:



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INTRODUCTION

The purpose of this traffic impact study is to assess the potential impact on traffic with the Blackwell C-Store development on the northwest corner of the intersection of Blackwell Road and US-50 in Lee's Summit, Missouri. The location of the development in relation to the street network is shown in Figure 1. The site plan for the development is shown in Figure 2.

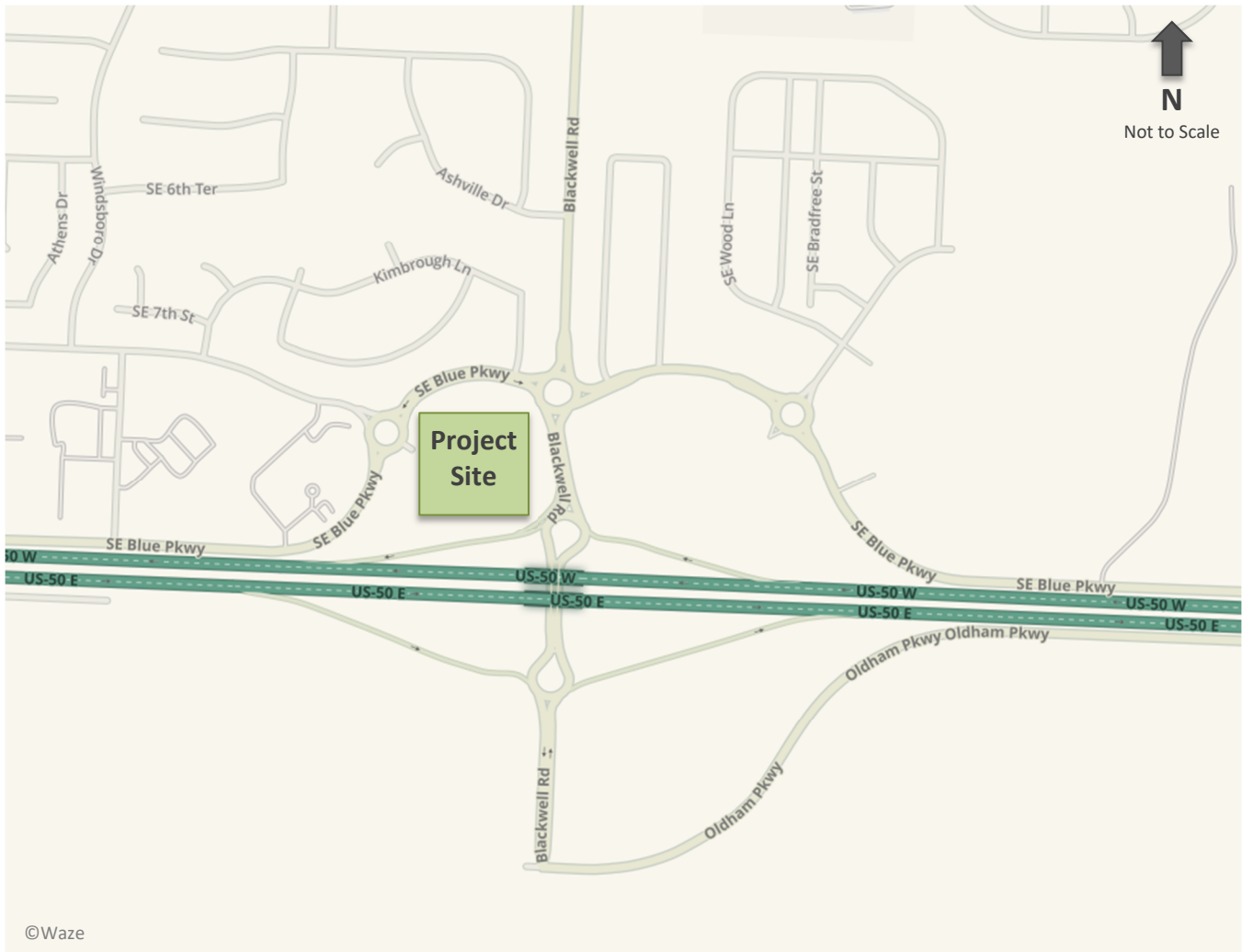


Figure 1 – Development Location

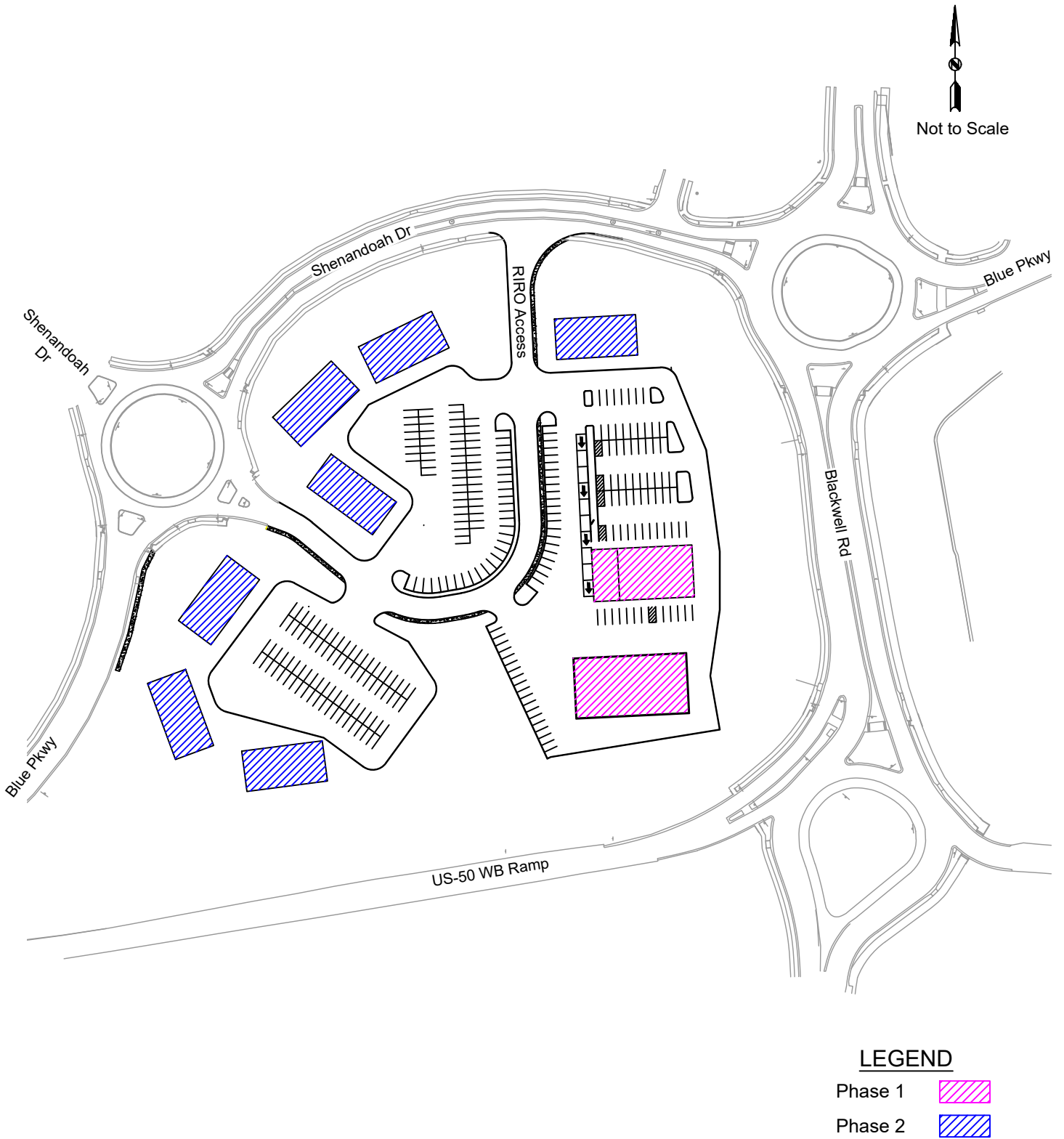


Figure 2 - Site Plan

EXISTING CONDITIONS

The site is in Lee's Summit, Missouri, in the northwest quadrant of the intersection Blackwell Road and US-50. The current land use of the planned development and to the east is undeveloped with residential to the north and the Summit Woods church to the west.

The Blue Parkway development, a mix of commercial and residential land uses, is currently under construction on the northeast quadrant of Blue Parkway and Blackwell Road.

Street Network and Traffic Control

The site is bordered to the south by the westbound US-50 Highway ramp, to the west by Blue Parkway, to the north by Shenandoah Drive, and to the east by Blackwell Road.

US-50 Highway is a four-lane, east–west, median-divided freeway/expressway per the City of Lee's Summit functional classification system. The posted speed limit in the project vicinity is 65 miles per hour (mph).

Blackwell Road is a four-lane, north–south, median-divided major collector with a posted speed limit of 35 mph. The intersection of Blackwell Road and the westbound US-50 ramps is a modified roundabout, with a southbound slip lane providing access from Blackwell Road to westbound US 50.

Shenandoah Drive is a two-lane, east–west collector roadway with a posted speed limit of 35 mph. The intersection of Shenandoah Drive and Blackwell Road is a two-lane roundabout with pedestrian facilities on all four legs.

Blue Parkway is a two-lane local roadway with a posted speed limit of 35 mph, that runs north–south along the west side of the project site, then transitions to an east–west alignment parallel to US-50 further west. The intersection of Shenandoah Drive and Blue Parkway is a single-lane roundabout with pedestrian facilities on all three constructed legs. The fourth leg of the roundabout is stubbed into the project site for a future connection.

Traffic Volumes

Intersections counted for analysis in this study were:

- US-50 Highway ramps and Blackwell Road
- Blackwell Road and Shenandoah Drive/Blue Parkway
- Shenandoah Drive and Blue Parkway

The turning movement traffic counts were completed on Thursday, January 8th, 2026, Tuesday, January 13th, 2026, and Wednesday, January 14th, 2026, for the peak volume time periods. Morning traffic counts were conducted from 7:00 AM until 9:00 AM and afternoon traffic counts were from 4:00 PM until 6:00 PM.

The morning peak period was determined to be from 7:15 AM until 8:15 AM and the afternoon peak period was determined to be from 4:30 PM until 5:30 PM.

Existing traffic volumes are shown on Figure 3. Traffic count data is included in the Appendix.

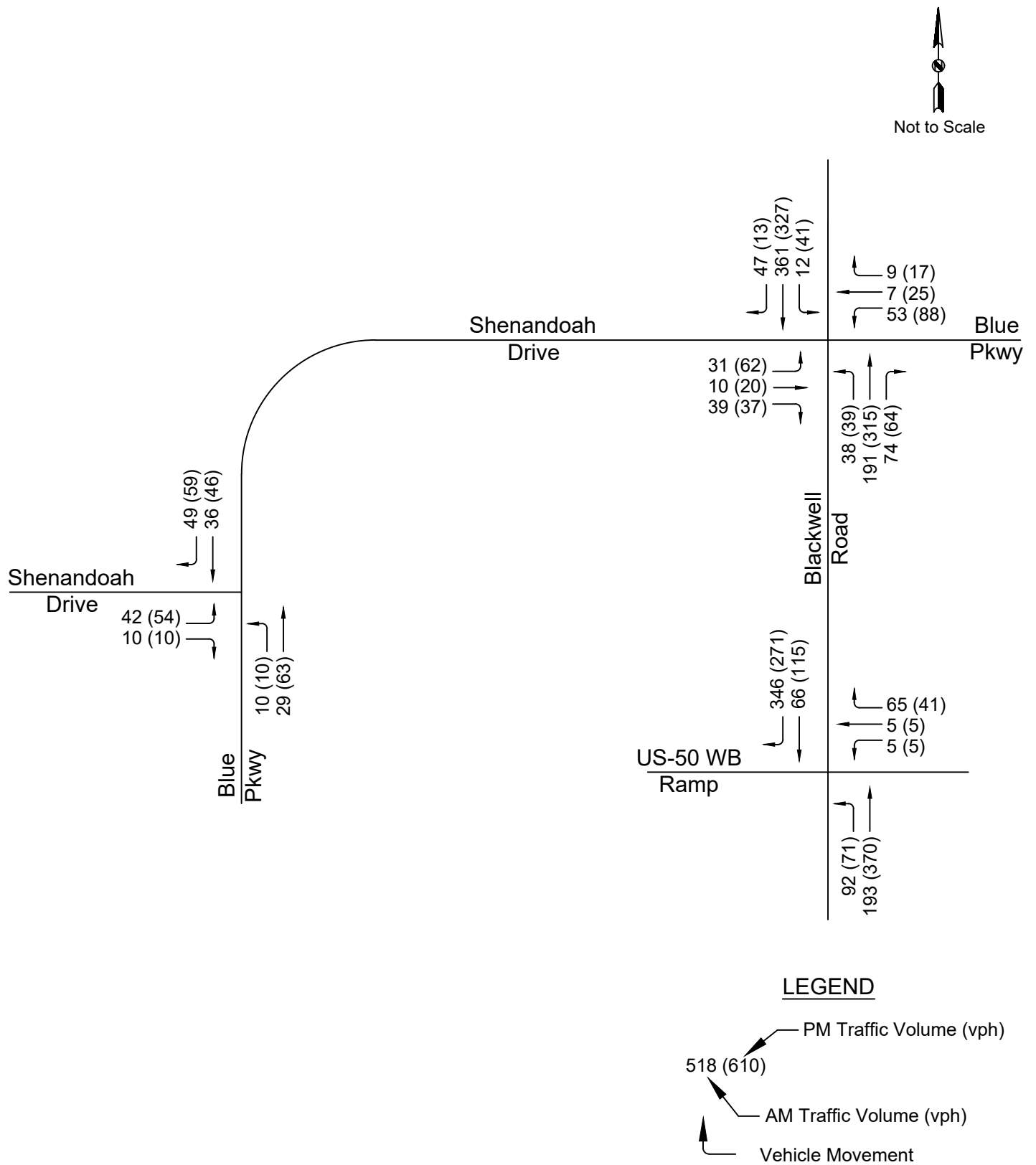


Figure 3 - Existing Traffic Volumes

PROPOSED CONDITIONS

The Blackwell C-Store development is planned to be constructed in phases with the combined C-Store and fast-food restaurant (20 fueling stations and a 2,000 sq ft restaurant) immediately with the medical offices (15,000 sq ft) and commercial (20,000 sq ft) in the near future. A site plan showing detailed building layout is included in the Appendix.

Access Plan

The site will be accessed via two locations – a right-in/right-out (RIRO) access on Shenandoah Drive and through the east leg of the existing Shenandoah Drive and Blue Parkway roundabout. The RIRO access will be stop-controlled with the northbound lane stopping.

There will be no access into the site from US-50 Highway or Blackwell Road.

Adequate spacing between access points is important for traffic safety and operation. Streets located within the functional area of an intersection can have a detrimental impact on traffic flow and safety. No new driveways or intersections should be constructed within the functional area of an intersection.

The minimum upstream functional area of an access point is calculated based on perception-reaction distance, deceleration distance, and queue storage length.

There is approximately 650 feet between the two existing roundabout crosswalks along Shenandoah Drive. At a posted speed of 35 mph and based on the existing traffic volumes, the upstream functional area is approximately 350 feet and the downstream functional area is approximately 195 feet.

While the proposed access point will be located within the upstream functional area (but outside the downstream functional area), it is not expected to adversely impact operations due to its RIRO configuration.

Sight Distance

Sight distance was measured at the proposed RIRO access on Shenandoah Road using the methodology recommended by the American Association of State Highway and Transportation Officials (AASHTO).

AASHTO requires a minimum intersection sight distance of 390 feet and a stopping sight distance of 250 feet for a posted speed limit of 35 mph. Based on field measurements at the proposed access, the available sight distance will be approximately 250 feet. Sight distance to the west/southwest could be improved by grading the existing site as part of the RIRO access construction to remove obstructions and provide a clear line of sight to the roundabout.

No specific sight distance measurements were collected for the additional roundabout leg, as it connects directly into the existing roundabout and has been identified as a planned expansion.

Crash Analysis

Crashes at the study intersections were analyzed over a three-year period (2023–2025) using data from the City of Lee’s Summit Police Department to identify existing crash patterns. There was one crash reported during the study period, and no fatal crashes within the study area. The reported crash occurred near the intersection of Blackwell Road and Shenandoah Drive and involved a vehicle striking a fixed object, resulting in property damage only (PDO).

No correctable crash patterns were identified, and no recommendations are made to alter the study intersections based on crash data.

Throat Length Analysis

The throat lengths for the proposed entrances into the site were compared to the City of Lee’s Summit *Access Management Code* (March 2018) requirements for drives adjacent to collector roadways. Based on the expected vehicles per hour, the site requires a minimum throat length of 100 feet. The measured throat length of the Shenandoah Drive access exceeds the minimum requirement and meets the City’s standards.

Trip Generation

The expected trip generation for the development was estimated using the 12th Edition of the *Trip Generation Handbook* published by the Institute of Transportation Engineers. The trip generation was based on Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 AM along with Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 PM criteria. Estimates for the expected trips generated by the development are provided in Table 1.

Table 1 – Trip Generation					
	Weekday	A.M.		P.M.	
ITE Land Use Code Units	Trips (vpd)	Trips In (vph)	Trips Out (vph)	Trips In (vph)	Trips Out (vph)
934-Fast-Food Restaurant with Drive-Thru Window 2,000 sq ft	896	34	32	33	30
945—Convenience Store/Gas Station 20 Fueling Positions (6,000 sq ft)	4,067	232	232	211	211
Phase 1 Total	4,963	266	264	244	241
720-Medical-Dental Office Building 15,000 sq ft	534	34	9	15	35
822-Strip Retail Plaza (<40K) 20,000 sq ft	1,074	43	36	61	61
Phase 2 Total	1,608	77	45	76	96
Phase 1 & 2 Total	6,571	343	309	320	337

Trip Distribution

The trip distribution pattern was determined for the site based on the existing directional traffic pattern of the peak period and based on a general analysis of the surrounding area. The detailed distribution patterns can be found in the appendix. Based on the existing traffic patterns, the type of development, location of nearby schools, and the metropolitan population centers, the new trips were assigned onto the roadway network, as shown below for the morning and afternoon periods.

Trip distribution during the morning peak period:

- 30% to and 30% from the north (Blackwell Rd)
- 5% to and 5% from the east (Blue Parkway)
- 45% to and 15% from westbound (US-50)
- 10% to and 30% from the south (Blackwell Rd)
- 5% to and 10% from the west (Shenandoah Dr)
- 5% to and 10% from the south (Blue Parkway)

Trip distribution during the afternoon peak period:

- 35% to and 35% from the north (Blackwell Rd)
- 5% to and 5% from the east (Blue Parkway)
- 40% to and 10% from westbound (US-50)
- 10% to and 35% from the south (Blackwell Rd)
- 5% to and 10% from the west (Shenandoah Dr)
- 5% to and from the south (Blue Parkway)

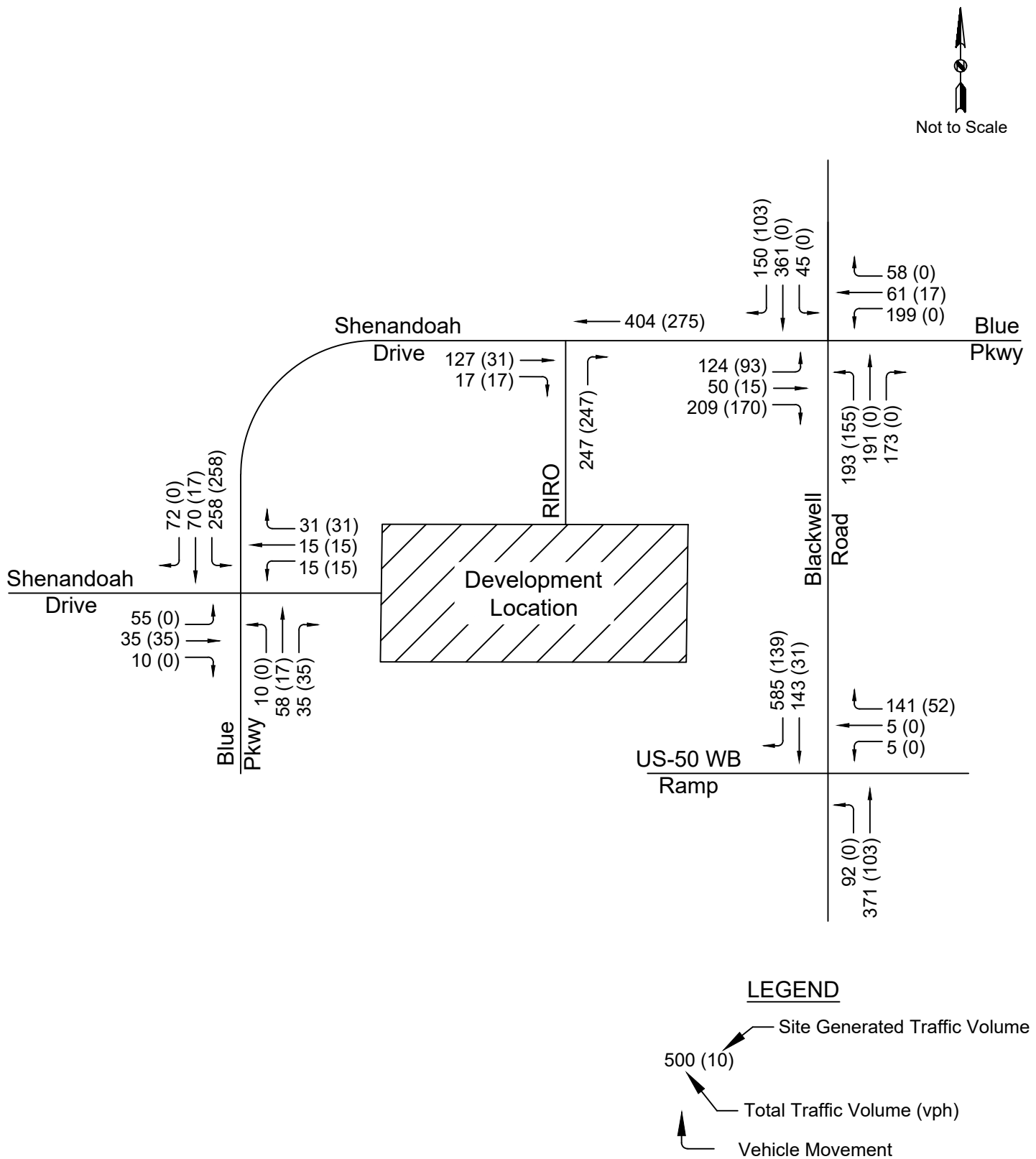
Existing Plus Site Traffic Volumes

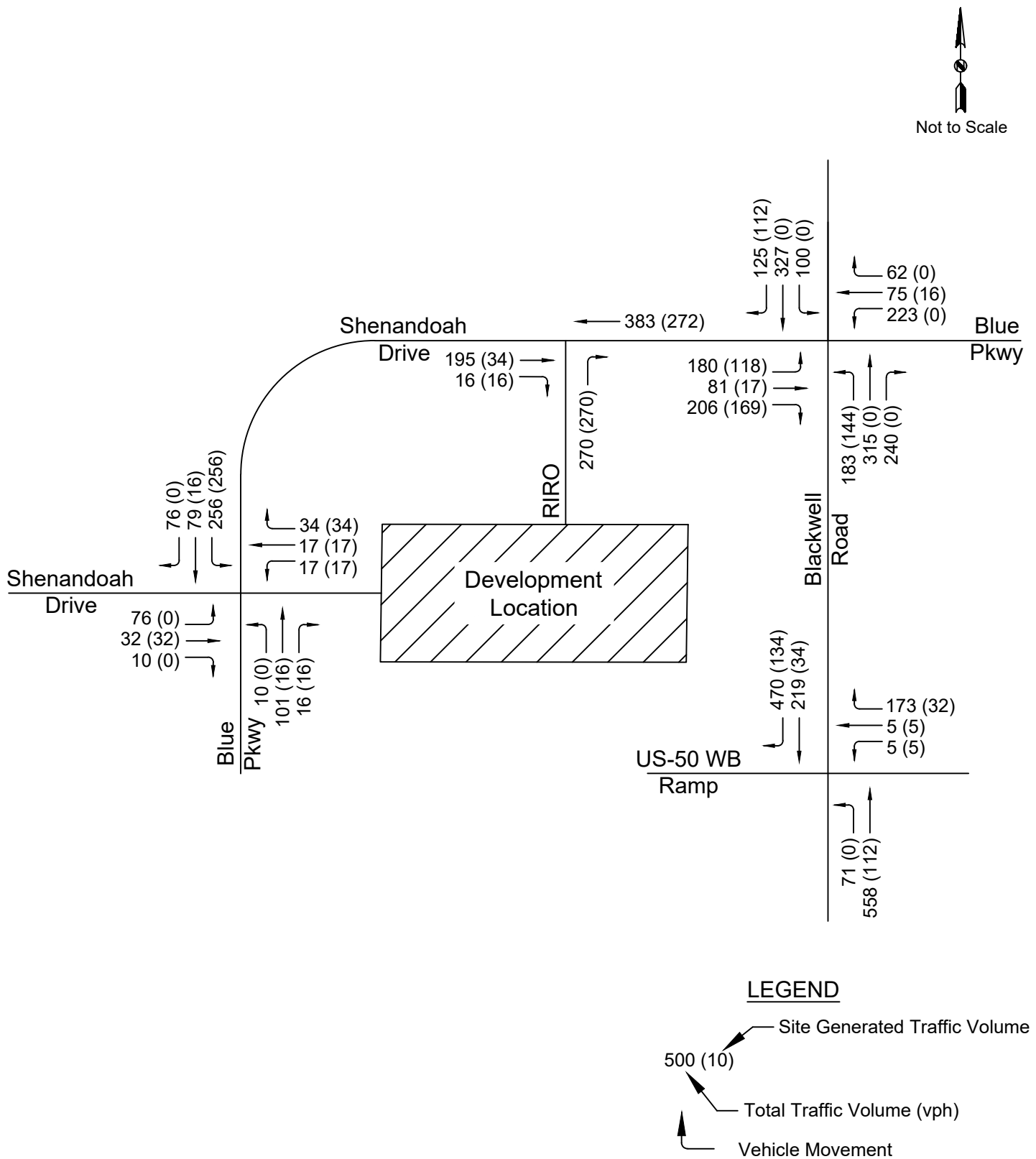
The expected site-generated traffic volumes (phase 1 and 2) were added to the existing traffic volumes. Trips from Blue Parkway development (*Blue Parkway Development Traffic Impact Study*, TranSystems, July 2021) were also included as the site is currently under construction but not yet fully constructed.

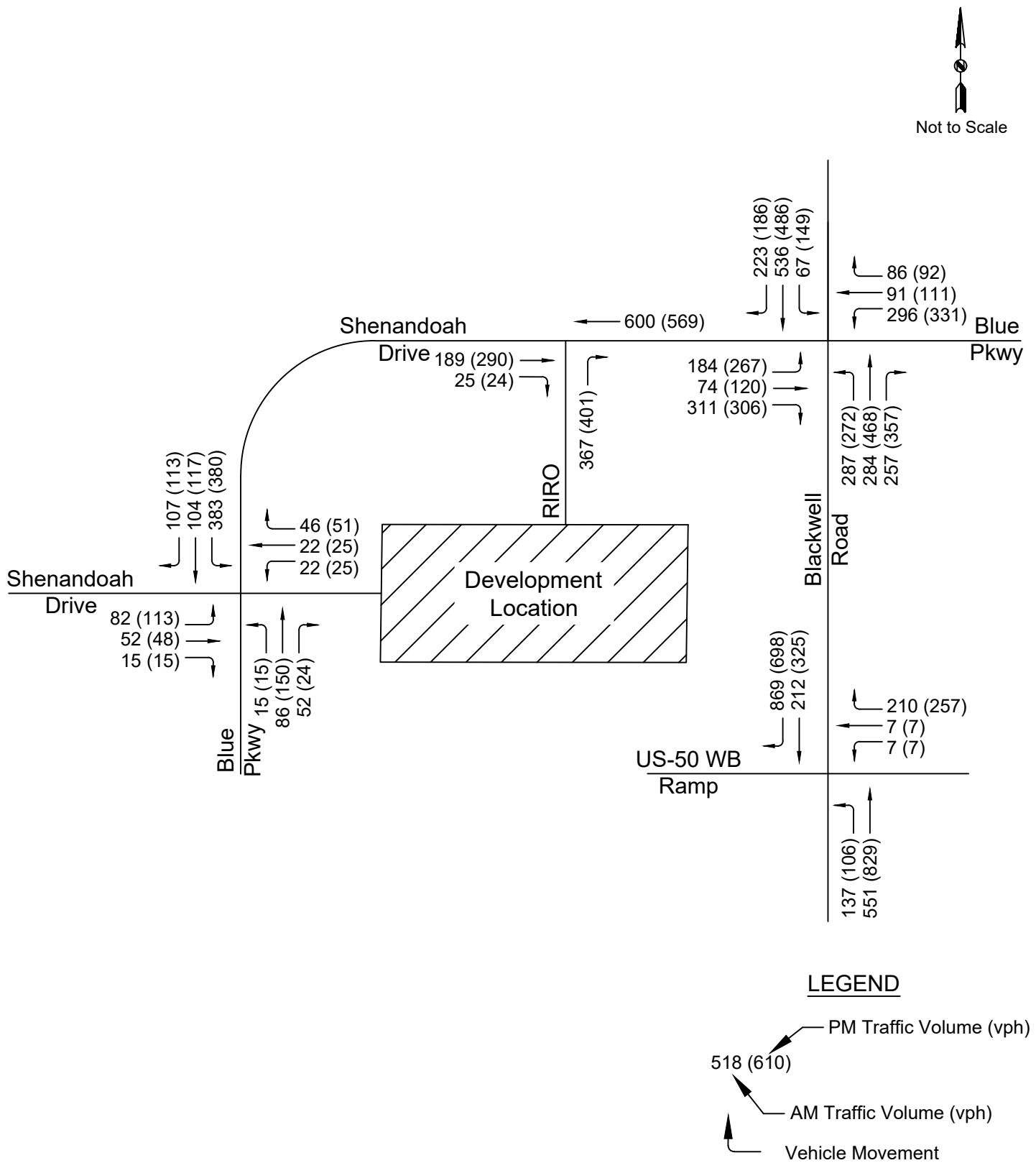
The volumes are shown on Figures 4 and 5.

Future Traffic Volumes

Future traffic volumes were generated at a rate of 2% annual growth over a twenty-year period. The calculated traffic volumes were added to the existing plus site traffic. The volumes for the future morning and afternoon peak hours are shown on Figure 6.







Signal Warrant Study

No signal warrant analysis was conducted as part of this study, as the adjacent intersections are existing roundabouts and the proposed access onto Shenandoah Drive is RIRO.

Right-Turn and Left-Turn Lane Warrants

The need for a right-turn lane into the site was evaluated using the City of Lee's *Summit Access Management Code*, March 2018 guidelines for the existing plus site condition. A left-turn lane analysis was not performed since the proposed access will function as a RIRO driveway.

Right-Turn Warrant

Right-turn lane guidelines per City of Lees Summit *Access Management Code*:

16.2.B. Required on collector streets in non-residential areas at the intersection with any street or driveway where the right-turn volume on the collector street is or is projected to be at least 100 vehicles in any hour. The minimum length should be 100 feet plus the taper.

The traffic volumes are not expected to meet the right-turning volume criteria eastbound for the RIRO access.

The raw analysis data is included in the Appendix.

CAPACITY

The capacity analysis for the study intersections was completed using the methodology outlined in the Highway Capacity Manual, 6th Edition. The volume and capacity analysis was completed using Trafficware SYNCHRO software (latest version) and SIDRA software (latest version) for the following scenarios:

- Existing (existing 2026 counts)
- Existing plus Phase 1 and 2 (including trips from the Blue Parkway development)
- Future (20-year scenario)

Level of Service (LOS) is defined as the measure of the quality of traffic flow and is graded from A to F—with A being the best situation, F being the worst, and D being generally the minimum acceptable level of service.

The criteria for determining level of service for signalized and unsignalized study intersections and access points are based on the average vehicle delay and is outlined in Table 4.

Table 2 – Intersection Level of Service		
Level of Service (LOS)	Average Control Delay (sec/veh)	
	Unsignalized	Signalized
A	< 10	< 10
B	< 15	< 20
C	< 25	< 35
D	< 35	< 55
E	< 50	< 80
F	≥ 50	≥ 80

Existing Conditions

Analysis was completed for existing conditions with existing roadway and lane configurations.

US-50 Highway Ramps and Blackwell Road

All approaches operate at LOS A during both the morning and afternoon peak periods. The intersection has sufficient capacity to accommodate queuing vehicles.

Blackwell Road and Shenandoah Drive / Blue Parkway

All approaches operate at LOS A during both peak periods, with adequate storage available for anticipated queues. The overall intersection operates at LOS A.

Shenandoah Drive and Blue Parkway

All approaches operate at LOS A during both peak periods and provide sufficient queuing capacity. The overall intersection operates at LOS A.

The results of the existing conditions analysis are shown for the morning and afternoon peak hours along with lane configuration and queue lengths on Figures 7 and 8.

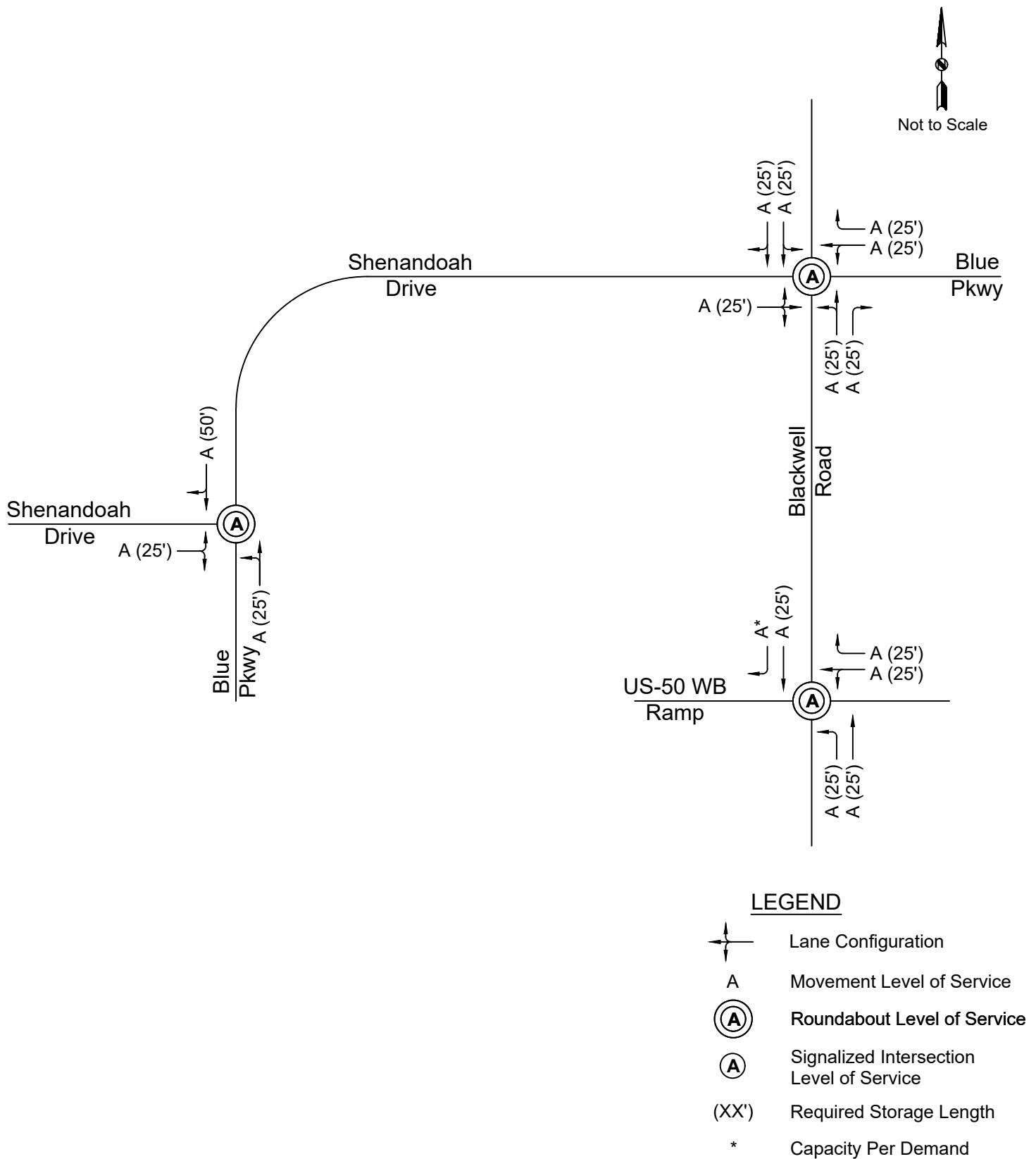


Figure 7 - Existing AM Level of Service

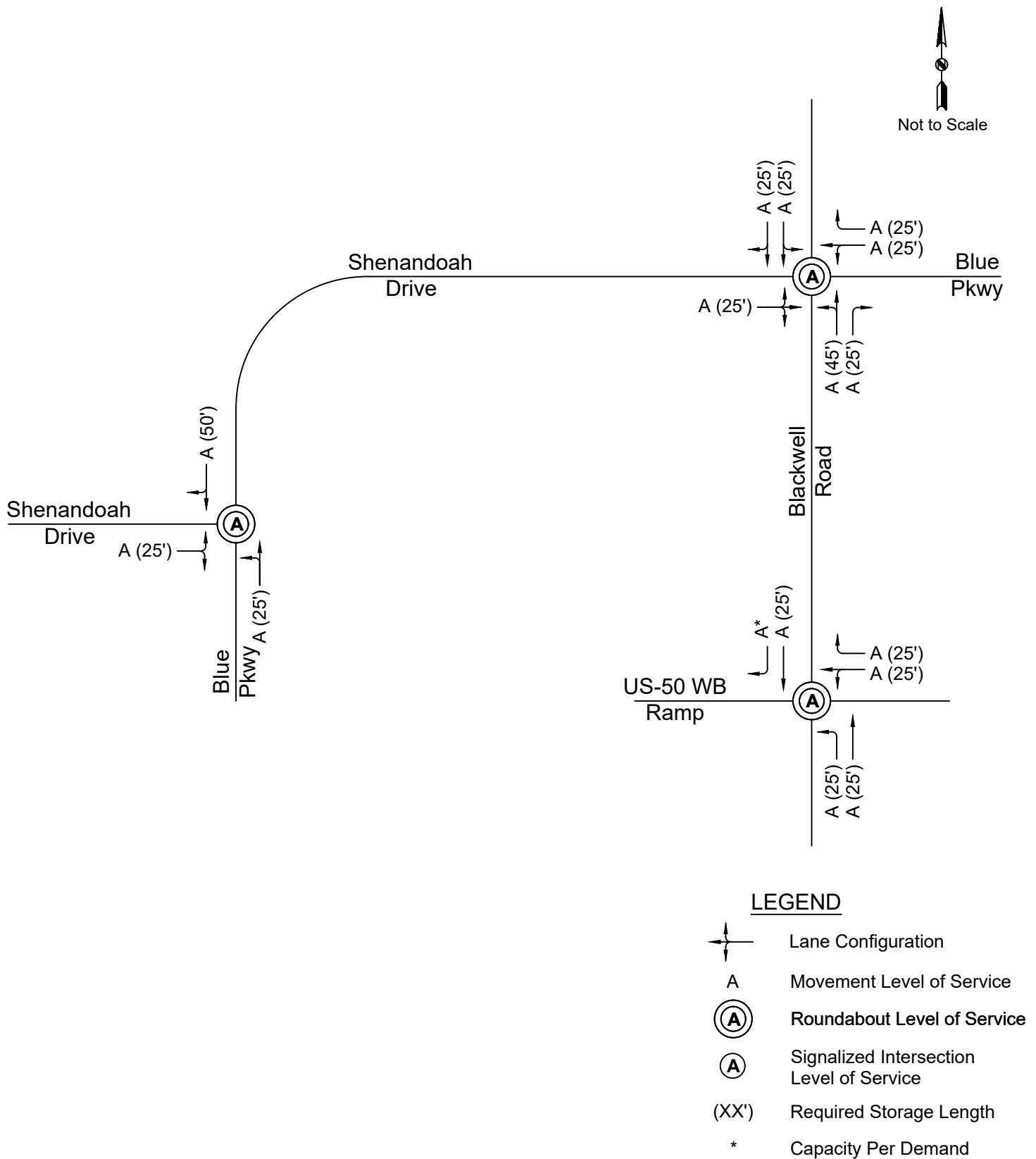


Figure 8 - Existing PM Level of Service

Existing Plus Site Conditions

Unless noted, existing roadway and lane configurations were used in intersection analysis.

US-50 Highway Ramps and Blackwell Road

There is no significant change in operations at this intersection from the existing conditions. All approaches continue to operate at LOS A during the morning and afternoon peak periods, with sufficient capacity for queuing vehicles.

Blackwell Road and Shenandoah Drive / Blue Parkway

With the addition of site traffic and traffic from the Blue Parkway development, the eastbound approach is projected to operate at LOS C during the morning peak period and LOS D during the afternoon peak period, compared to LOS A under existing conditions. These operations remain within the City's acceptable level of service requirements.

The projected queue length is expected to increase to approximately 230 feet during the afternoon peak period; however, the intersection is anticipated to have sufficient capacity to accommodate this queue.

The remaining movements operate at a LOS C or better.

Shenandoah Drive and Blue Parkway

With the construction of the roundabout east leg, all approaches operate at LOS A during both peak periods and provide sufficient queuing capacity. The overall intersection operates at LOS A.

Shenandoah Drive and RIRO Access

With the construction of a stop-controlled RIRO south leg: The through movements on Shenandoah Drive operate under free-flow conditions. The northbound approach operates at LOS B, and the intersection has sufficient capacity to accommodate queued vehicles.

The results of the existing plus site analysis for the morning and afternoon peak hour conditions along with lane configuration and queue lengths are shown on Figures 9 and 10.



McCurdy
ENGINEERS

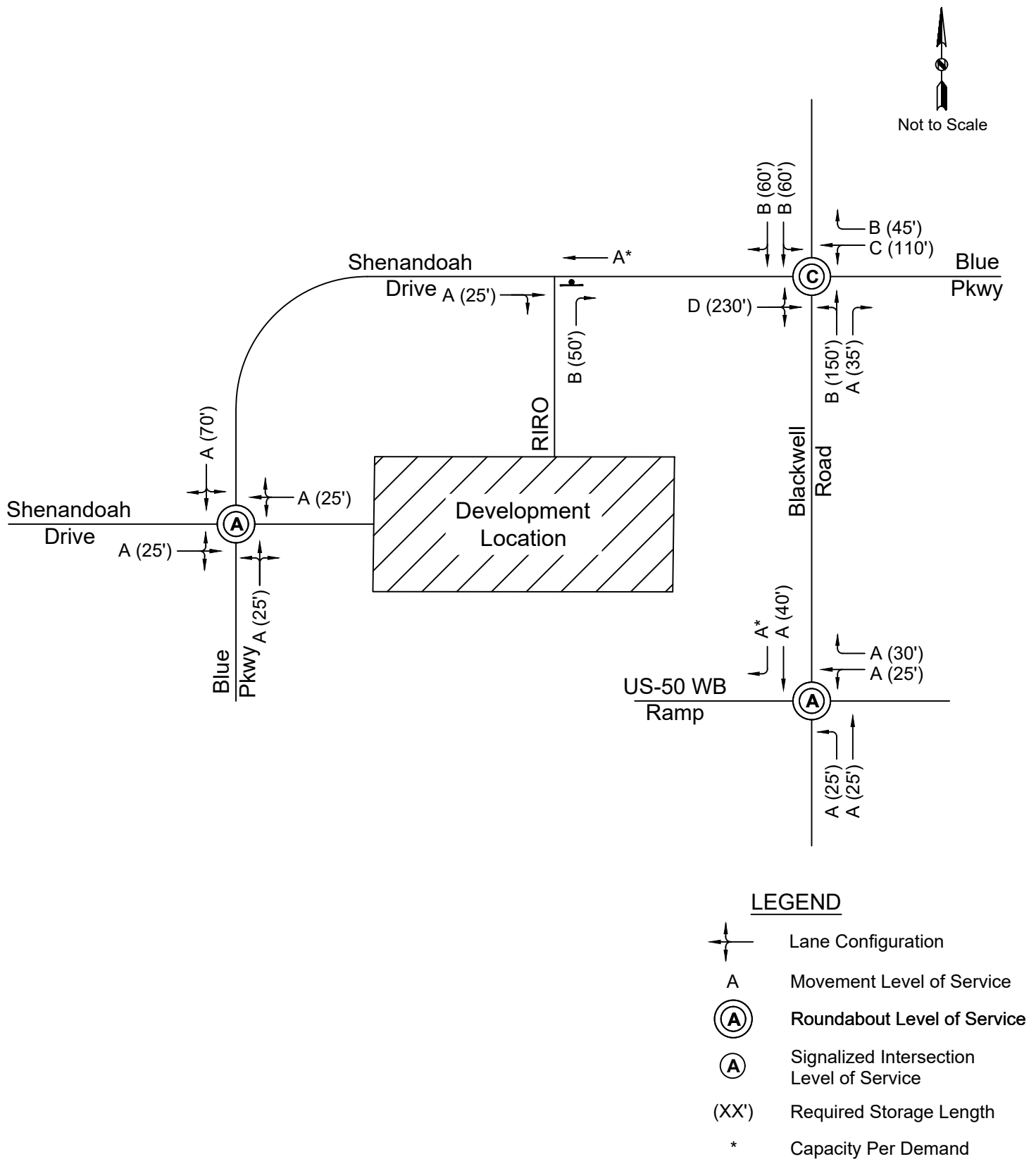


Figure 10 - Existing plus Site PM Level of Service

Future Conditions

Future analysis is intended to provide a high-level overview of increases in trips as other development occurs and provide recommendations for reserving right-of-way for future expansion.

US-50 Highway Ramps and Blackwell Road

There is no significant change in the operation of this intersection under the existing plus site conditions. The roundabout is expected to continue operating at LOS A during both the morning and afternoon peak periods, and the intersection has sufficient capacity to accommodate queues. However, some individual movements are expected to drop to LOS B or LOS C.

Blackwell Road and Shenandoah Drive / Blue Parkway

The additional traffic projected under future conditions results in reduced level of service for several movements at the intersection. Most notably, the eastbound approach of the roundabout is projected to operate at LOS F during the morning and afternoon peak period, the southbound approach at a LOS F during the morning peak period and LOS E during the afternoon peak period, and the westbound approach at a LOS F during the afternoon peak period with queue lengths exceeding 1,000 feet for some movements.

Shenandoah Drive and Blue Parkway

There is no significant change in the operations of this intersection from the existing plus site conditions. All approaches continue to operate at a LOS B or better for the morning and afternoon peak periods, and the intersection has sufficient capacity for queuing vehicles.

Shenandoah Drive and RIRO Access

There is no significant change in the operations of this intersection from the existing plus site conditions. All approaches continue to operate at a LOS C or better for the morning and afternoon peak periods and the intersection has sufficient capacity for queuing vehicles.

The results of the future analysis is shown for the morning and afternoon peak hour conditions along with lane configuration and queue lengths on Figures 11 and 12.

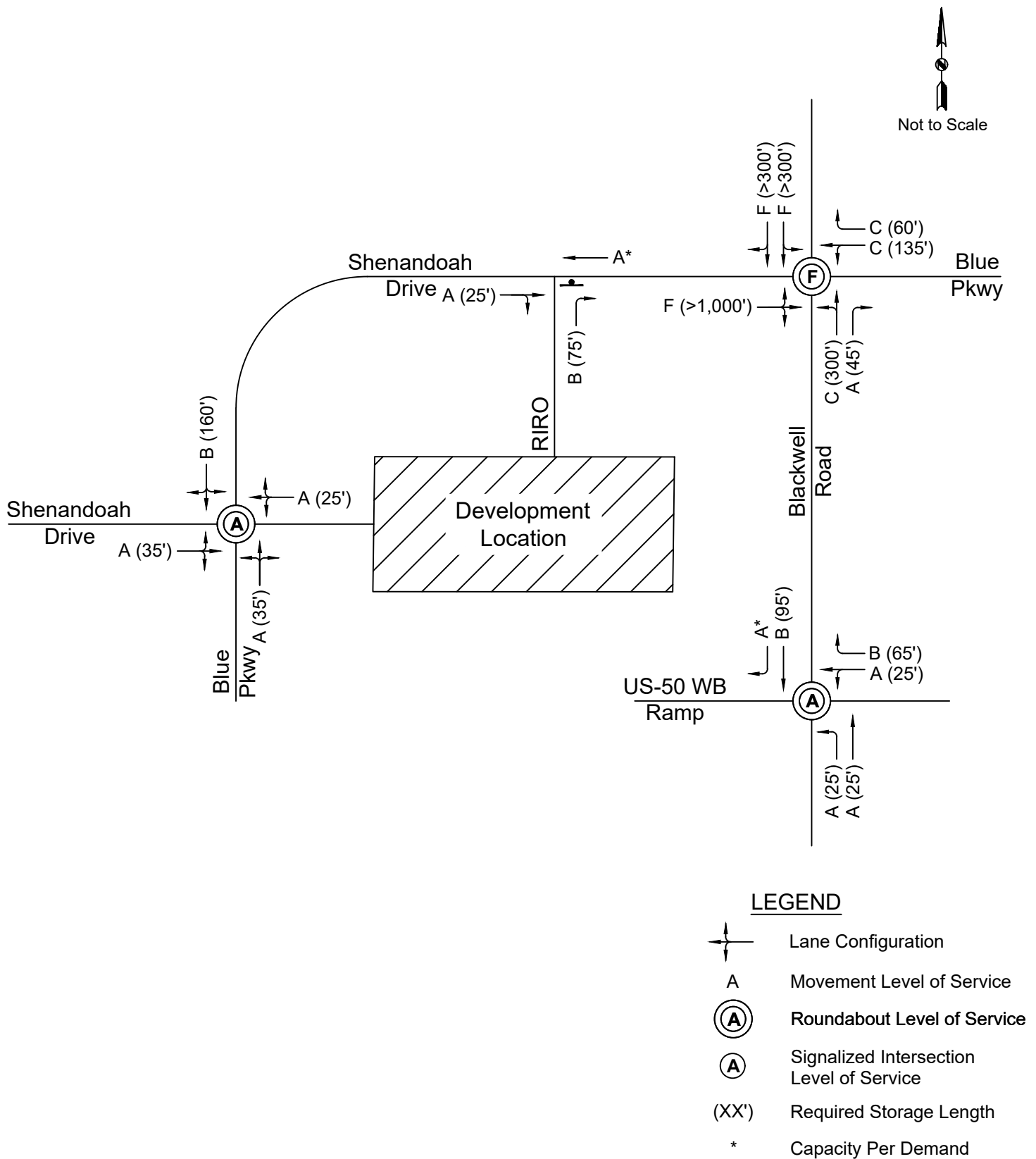


Figure 11 - Future AM Level of Service

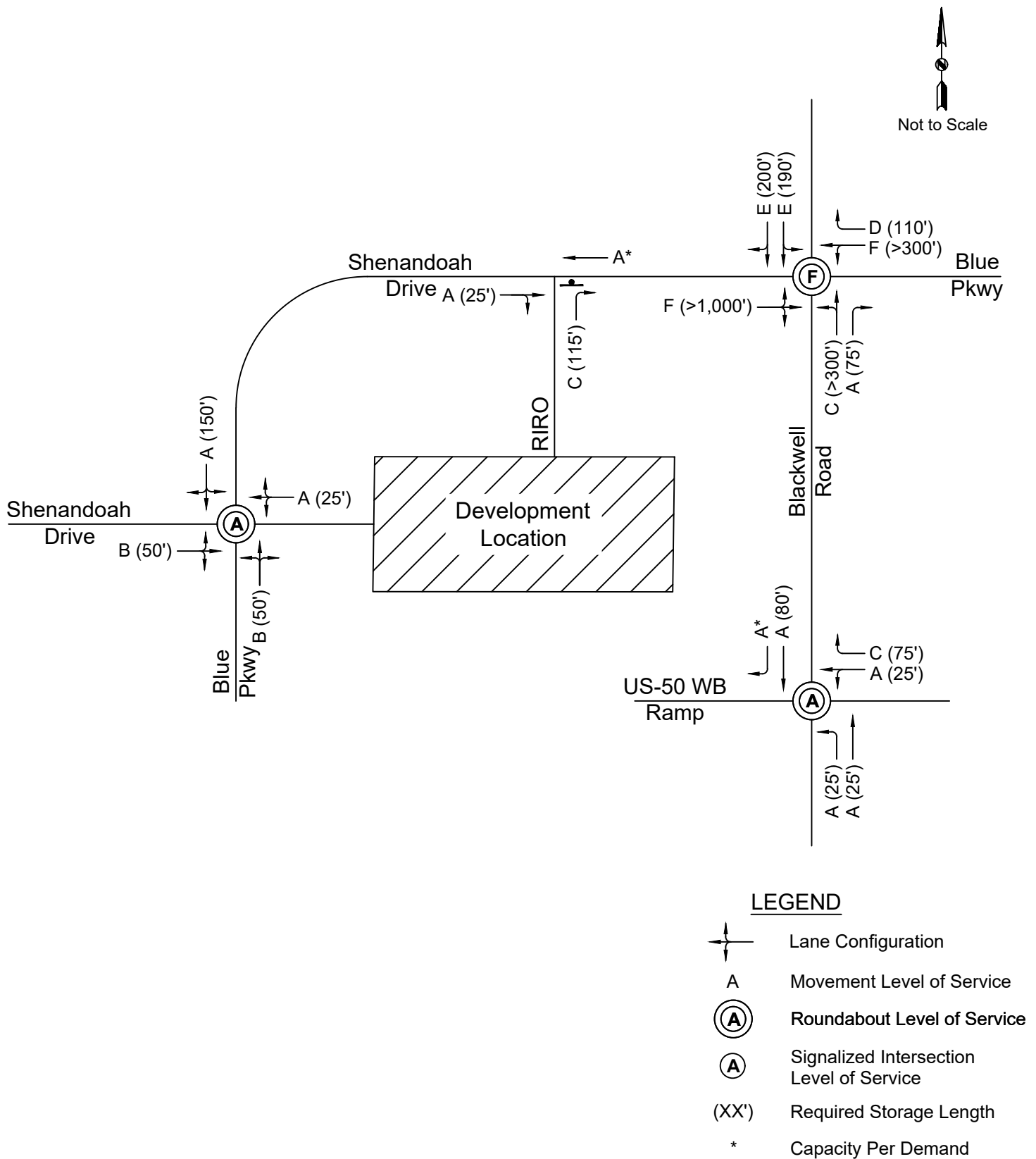


Figure 12 - Future PM Level of Service

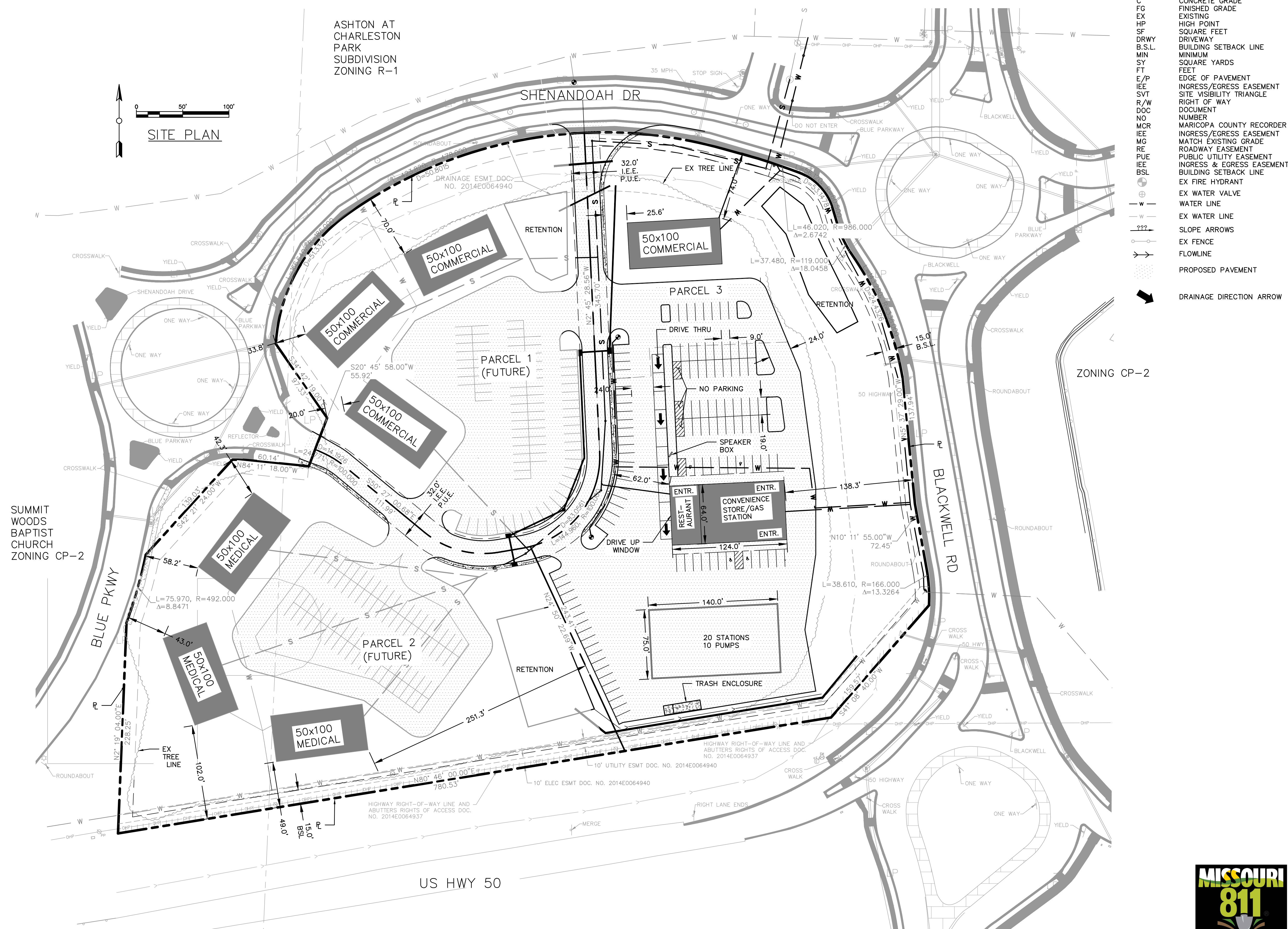
RECOMMENDATIONS

This study documents the findings of the traffic analysis of the expected traffic for the Blackwell C-Store development in Lee's Summit, Missouri. The study includes an analysis of the existing conditions, existing plus site conditions, and future conditions.

Based on the results of the SYNCHRO analysis, SIDRA analysis, observations from the field, and engineering judgment, the following recommendations are made:

- *General:* Monitor traffic operations at the study intersections as traffic patterns change or additional development occurs in the area.
- *Shenandoah Drive and Blue Parkway/Access:* Construct the east leg of the roundabout to City of Lee's Summit standards
- *Shenandoah Drive and RIRO Access:* Construct a stop-controlled RIRO access for the northbound approach and perform clearing/grading as necessary to provide a clear line of sight to the adjacent roundabout.
- *Future Conditions:* Reserve sufficient right-of-way along to accommodate potential future roadway improvements should traffic conditions deteriorate as traffic volumes through the corridor increase.

APPENDIX



**Blackwell Rd & US-50 Ramp
AM**

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	0	0	0	0	0	10	10	16	43	0	59	0	15	96	111	180
7:15	0	0	0	0	0	0	9	9	22	48	0	70	0	15	80	95	174
7:30	0	0	0	0	0	0	14	14	20	44	0	64	0	18	90	108	186
7:45	0	0	0	0	0	0	20	20	16	39	0	55	0	17	102	119	194
8:00	0	0	0	0	0	0	22	22	34	62	0	96	0	16	74	90	208
8:15	0	0	0	0	0	0	9	9	15	79	0	94	0	12	60	72	175
8:30	0	0	0	0	0	0	12	12	21	29	0	50	0	4	58	62	124
8:45	0	0	0	0	0	0	12	12	20	37	0	57	0	16	49	65	134
Total	0	0	0	0	0	0	108	108	164	381	0	545	0	113	609	722	1375

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	0	0	0	0	#DIV/0!	0	0	9	9	0.74	22	48	0	70	0.74	0	15	80	95	0.87	174
7:30	0	0	0	0		0	0	14	14		20	44	0	64		0	18	90	108		186
7:45	0	0	0	0		0	0	20	20		16	39	0	55		0	17	102	119		194
8:00	0	0	0	0		0	0	22	22		34	62	0	96		0	16	74	90		208
Total	0	0	0	0		0	0	65	65		92	193	0	285		0	66	346	412		762

**Blackwell Rd and Shenandoah Dr
AM**

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	1	6	7	13	4	3	20	5	33	18	56	2	86	11	99	182
7:15	8	2	16	26	11	1	1	13	10	36	23	69	4	99	9	112	220
7:30	7	4	12	23	9	1	2	12	8	48	9	65	1	77	17	95	195
7:45	9	2	7	18	18	5	2	25	9	39	19	67	4	114	15	133	243
8:00	7	2	4	13	15	0	4	19	11	68	23	102	3	71	6	80	214
8:15	6	2	4	12	8	2	4	14	6	55	19	80	3	61	10	74	180
8:30	8	2	4	14	10	0	2	12	5	41	5	51	1	49	10	60	137
8:45	5	3	5	13	9	6	1	16	8	37	14	59	2	58	10	70	158
Total	50	18	58	126	93	19	19	131	62	357	130	549	20	615	88	723	1529

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	8	2	16	26	0.77	11	1	1	13	0.69	10	36	23	69	0.74	4	99	9	112	0.79	220
7:30	7	4	12	23		9	1	2	12		8	48	9	65		1	77	17	95		195
7:45	9	2	7	18		18	5	2	25		9	39	19	67		4	114	15	133		243
8:00	7	2	4	13		15	0	4	19		11	68	23	102		3	71	6	80		214
Total	31	10	39	80		53	7	9	69		38	191	74	303		12	361	47	420		872

**Shenandoah Dr and Blue Parkway
AM**

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
7:00	0	6	0	6	0	12	11	23	0	0	0	0	4	0	1	5	34
7:15	0	5	0	5	0	8	8	16	0	0	0	0	13	0	0	13	34
7:30	0	8	0	8	0	11	17	28	0	0	0	0	14	0	0	14	50
7:45	0	6	0	6	0	12	14	26	0	0	0	0	11	0	0	11	43
8:00	0	10	0	10	0	8	10	18	0	0	0	0	4	0	0	4	32
8:15	0	8	0	8	0	7	7	14	0	0	0	0	12	0	0	12	34
8:30	0	2	0	2	0	2	17	19	0	0	0	0	11	0	1	12	33
8:45	0	6	0	6	0	6	10	16	0	0	0	0	7	0	1	8	30
Total	0	51	0	51	0	66	94	160	0	0	0	0	76	0	3	79	290

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
7:15	0	5	0	5	0.73	0	8	8	16	0.79	0	0	0	0	#DIV/0!	13	0	0	13	0.75	34
7:30	0	8	0	8		0	11	17	28		0	0	0	0		14	0	0	14		50
7:45	0	6	0	6		0	12	14	26		0	0	0	0		11	0	0	11		43
8:00	0	10	0	10		0	8	10	18		0	0	0	0		4	0	0	4		32
Total	0	29	0	29		0	39	49	88		0	0	0	0		42	0	0	42		159

Blackwell Rd & US-50 Ramp
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
4:00 PM	0	0	0	0	0	0	10	10	20	59	0	79	0	28	64	92	181
4:15 PM	0	0	0	0	1	0	6	7	31	70	0	101	0	23	89	112	220
4:30 PM	0	0	0	0	2	0	9	11	21	91	0	112	0	32	78	110	233
4:45 PM	0	0	0	0	0	0	10	10	16	85	0	101	0	29	69	98	209
5:00 PM	0	0	0	0	0	0	10	10	20	96	0	116	0	24	65	89	215
5:15 PM	0	0	0	0	0	1	12	13	14	98	0	112	0	30	59	89	214
5:30 PM	0	0	0	0	0	0	6	6	17	64	0	81	0	27	49	76	163
5:45 PM	0	0	0	0	0	1	16	17	13	59	0	72	0	14	50	64	153
Total	0	0	0	0	3	2	79	84	152	622	0	774	0	207	523	730	1588

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
4:30 PM	0	0	0	0	#DIV/0!	2	0	9	11	0.85	21	91	0	112	0.95	0	32	78	110	0.88	233
4:45 PM	0	0	0	0		0	0	10	10		16	85	0	101		0	29	69	98		209
5:00 PM	0	0	0	0		0	0	10	10		20	96	0	116		0	24	65	89		215
5:15 PM	0	0	0	0		0	1	12	13		14	98	0	112		0	30	59	89		214
Total	0	0	0	0		2	1	41	44		71	370	0	441		0	115	271	386		871

Blackwell Rd and Shenandoah Dr
PM

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
4:00 PM	8	4	12	24	18	1	0	19	10	83	7	100	1	71	14	86	229
4:15 PM	8	2	11	21	12	2	3	17	12	60	10	82	1	96	7	104	224
4:30 PM	18	7	11	36	13	6	6	25	7	80	14	101	3	82	15	100	262
4:45 PM	18	5	8	31	25	3	3	31	9	74	20	103	4	86	7	97	262
5:00 PM	19	7	8	34	40	9	7	56	15	60	17	92	0	89	12	101	283
5:15 PM	7	1	10	18	10	7	1	18	8	101	13	122	6	70	7	83	241
5:30 PM	7	3	3	13	17	2	4	23	8	104	11	123	6	68	12	86	245
5:45 PM	16	5	10	31	6	1	2	9	8	77	17	102	3	91	12	106	248
Total	101	34	73	208	141	31	26	198	77	639	109	825	24	653	86	763	1994

PHF																					Int. Total
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total	PHF	
4:30 PM	18	7	11	36	0.83	13	6	6	25	0.58	7	80	14	101	0.86	3	82	15	100	0.94	262
4:45 PM	18	5	8	31		25	3	3	31		9	74	20	103		4	86	7	97		262
5:00 PM	19	7	8	34		40	9	7	56		15	60	17	92		0	89	12	101		283
5:15 PM	7	1	10	18		10	7	1	18		8	101	13	122		6	70	7	83		241
Total	62	20	37	119		88	25	17	130		39	315	64	418		13	327	41	381		1048

**Shenandoah Dr and Blue Parkway
PM**

Time	Eastbound				Westbound				Northbound				Southbound				Int. Total
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	
4:00 PM	0	22	0	22	0	4	4	8	0	0	0	0	11	0	0	11	41
4:15 PM	0	23	0	23	0	4	10	14	0	0	0	0	11	0	0	11	48
4:30 PM	0	12	0	12	0	16	17	33	0	0	0	0	11	0	0	11	56
4:45 PM	0	14	0	14	0	11	17	28	0	0	0	0	12	0	0	12	54
5:00 PM	1	22	0	23	0	10	13	23	0	0	0	0	20	0	1	21	67
5:15 PM	1	15	0	16	0	9	12	21	0	0	0	0	11	0	0	11	48
5:30 PM	0	11	0	11	0	4	15	19	0	0	0	0	8	0	0	8	38
5:45 PM	0	9	0	9	0	15	16	31	0	0	0	0	13	0	0	13	53
Total	2	128	0	130	0	73	104	177	0	0	0	0	97	0	1	98	405

PHF																				Int. Total	
Time	EB Left	EB Thru	EB Right	EB Total	PHF	WB Left	WB Thru	WB Right	WB Total	PHF	NB Left	NB Thru	NB Right	NB Total	PHF	SB Left	SB Thru	SB Right	SB Total		PHF
4:30 PM	0	12	0	12	0.71	0	16	17	33	0.8	0	0	0	0	#DIV/0!	11	0	0	11	0.65	56
4:45 PM	0	14	0	14		0	11	17	28		0	0	0	0		12	0	0	12		54
5:00 PM	1	22	0	23		0	10	13	23		0	0	0	0		20	0	1	21		67
5:15 PM	1	15	0	16		0	9	12	21		0	0	0	0		11	0	0	11		48
Total	2	63	0	65		0	46	59	105		0	0	0	0		54	0	1	55		225



Diagram illustrating the relationship between Total Hourly Volume and Proposed Development Traffic:

- Total Hourly Volume
- 123(45)
- Proposed Development Traffic

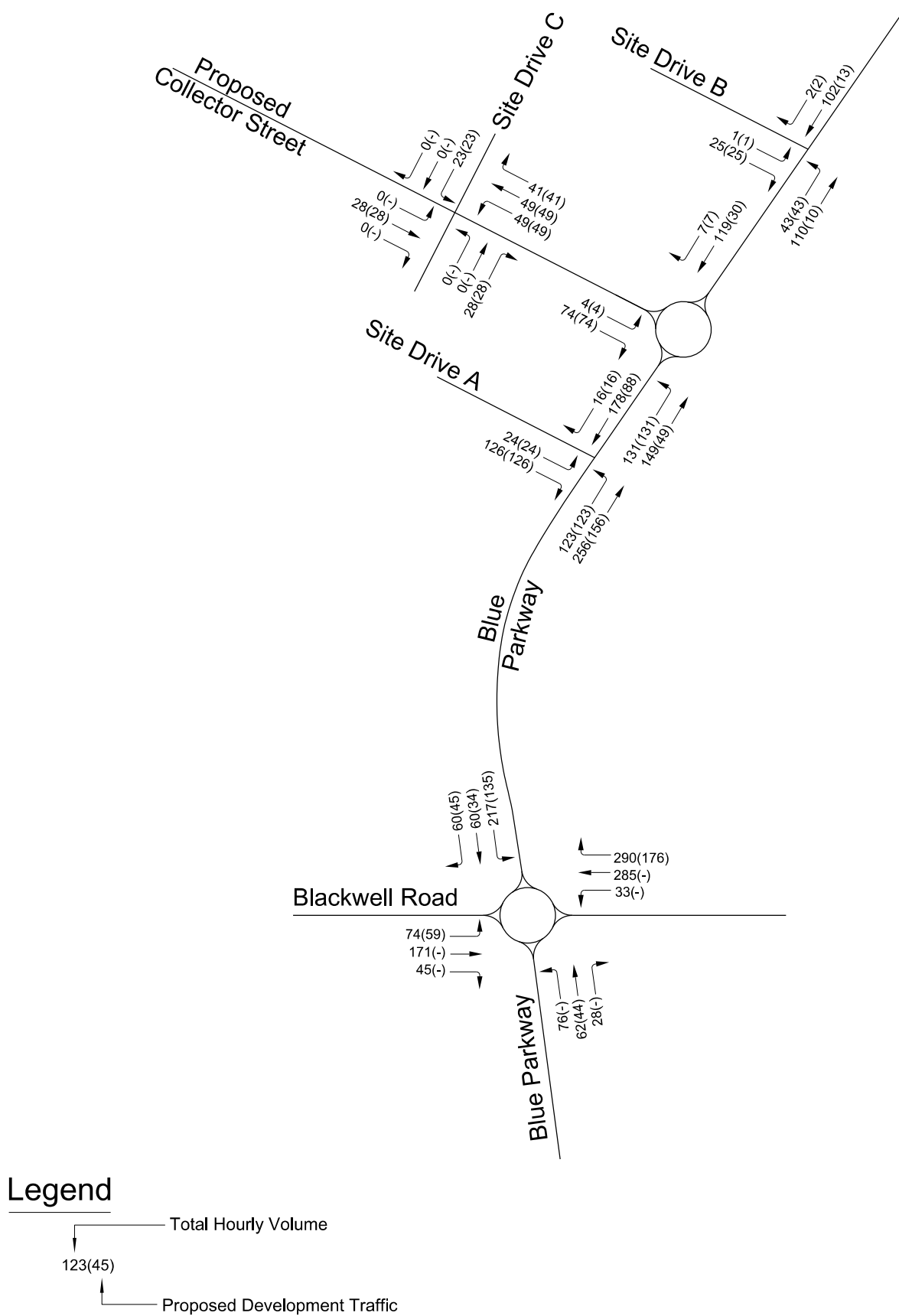
EXISTING PLUS DEVELOPMENT CONDITIONS A.M. PEAK HOUR TRAFFIC VOLUMES

Blue Parkway Development
Traffic Impact Study
Lee's Summit, Missouri

July 2021

No Scale

Figure A-8



Blackwell C-Store TIS Site Trip Generation

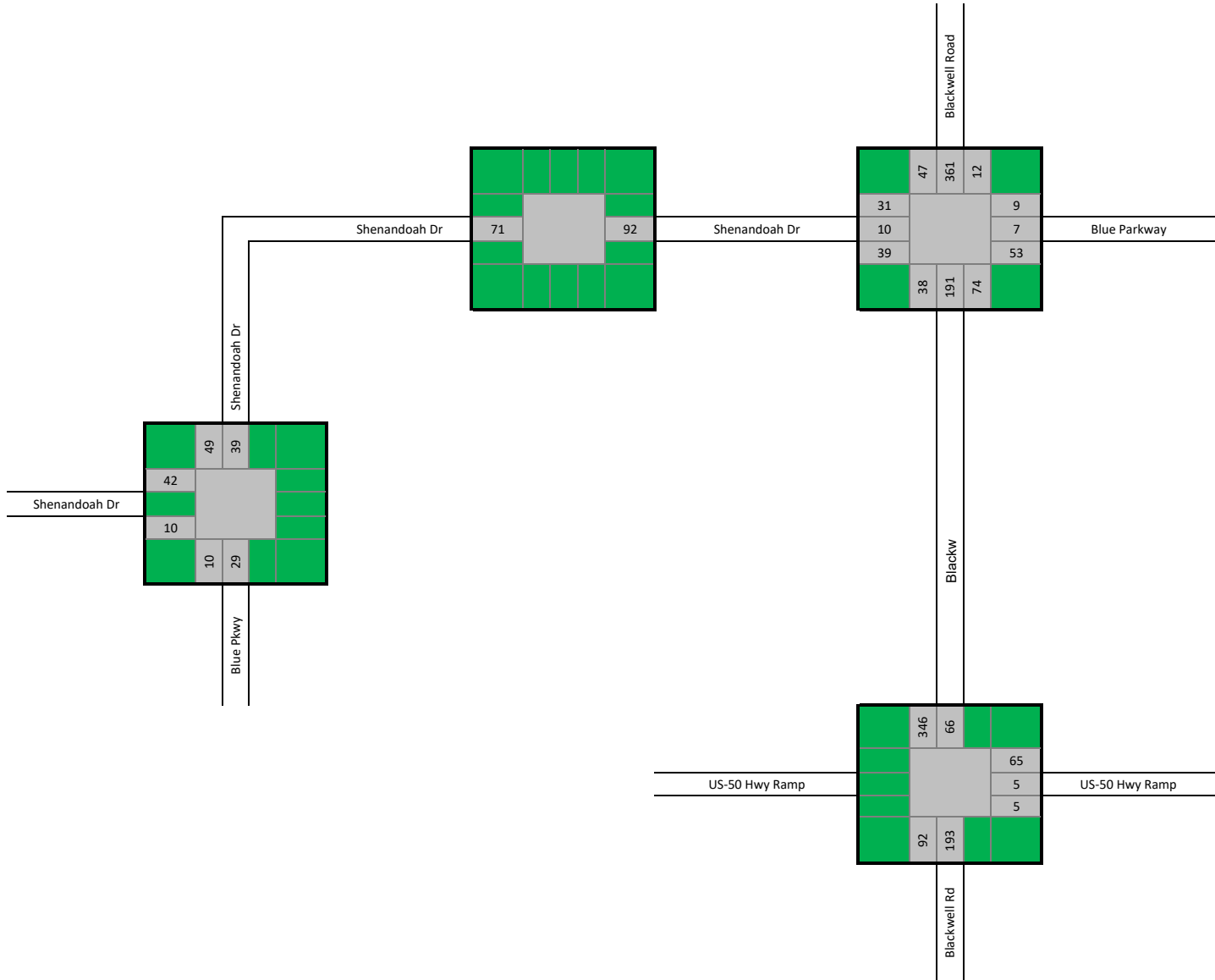
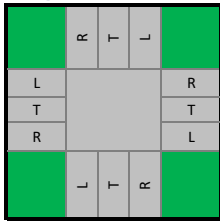
ITE Trip Generation Manual - 12th Edition

Highlighted text indicates trips used in Synchro and Warrant Analysis

Land Use	ITE Code	Size	Units	Equation	Trips (Eq.)	Av. Rate	Trips (Av. Rate)	In%	Out%	Trips In	Trips Out
PHASE I											
Fast-Food Restaurant with Drive-Through Window	934	2	1000 Sq Ft	n/a	n/a	448.12	896	50%	50%	448	448
Convenience Store/Gas Station (GFA 5.5-10k) (Weekday)	945	20	Vehicle Fueling Positions	n/a	n/a	203.35	4067	50%	50%	2034	2033
										2482	2481
Fast-Food Restaurant with Drive-Through Window (AM)	934	2	1000 Sq Ft	n/a	n/a	33.24	66	51%	49%	34	32
Convenience Store/Gas Station (GFA 5.5-10k) (AM)	945	20	Vehicle Fueling Positions	n/a	n/a	23.21	464	50%	50%	232	232
										266	264
Fast-Food Restaurant with Drive-Through Window (PM)	934	2	1000 Sq Ft	n/a	n/a	31.6	63	52%	48%	33	30
Convenience Store/Gas Station (GFA 5.5-10k) (PM)	945	20	Vehicle Fueling Positions	n/a	n/a	21.08	422	50%	50%	211	211
										244	241
PHASE II											
Strip Retail Plaza (<40k) (Weekday)	822	20	1000 Sq Ft	$T=42.20(X)+229.68$	1074	54.45	1089	50%	50%	537	537
Medical-Dental Office Building	720	15	1000 Sq. Ft.	$T=40.60(X) - 75.15$	534	34.03	510	50%	50%	267	267
										804	804
Strip Retail Plaza (AM)	822	20	1000 Sq. Ft.	n/a	n/a	3.93	79	55%	45%	43	36
Medical-Dental Office Building	720	15	1000 Sq. Ft.	$\ln(T)=0.90\ln(X)+1.33$	43	3.21	48	78%	22%	34	9
										77	45
Strip Retail Plaza (PM)	822	20	1000 Sq Ft	$\ln(T)=0.68\ln(X)+2.77$	122	6.29	126	50%	50%	61	61
Medical-Dental Office Building	720	15	1000 Sq. Ft.	$T=3.70(X)-5.75$	50	3.42	51	30%	70%	15	35
										76	96

AM - Existing Peak Hour Traffic Counts

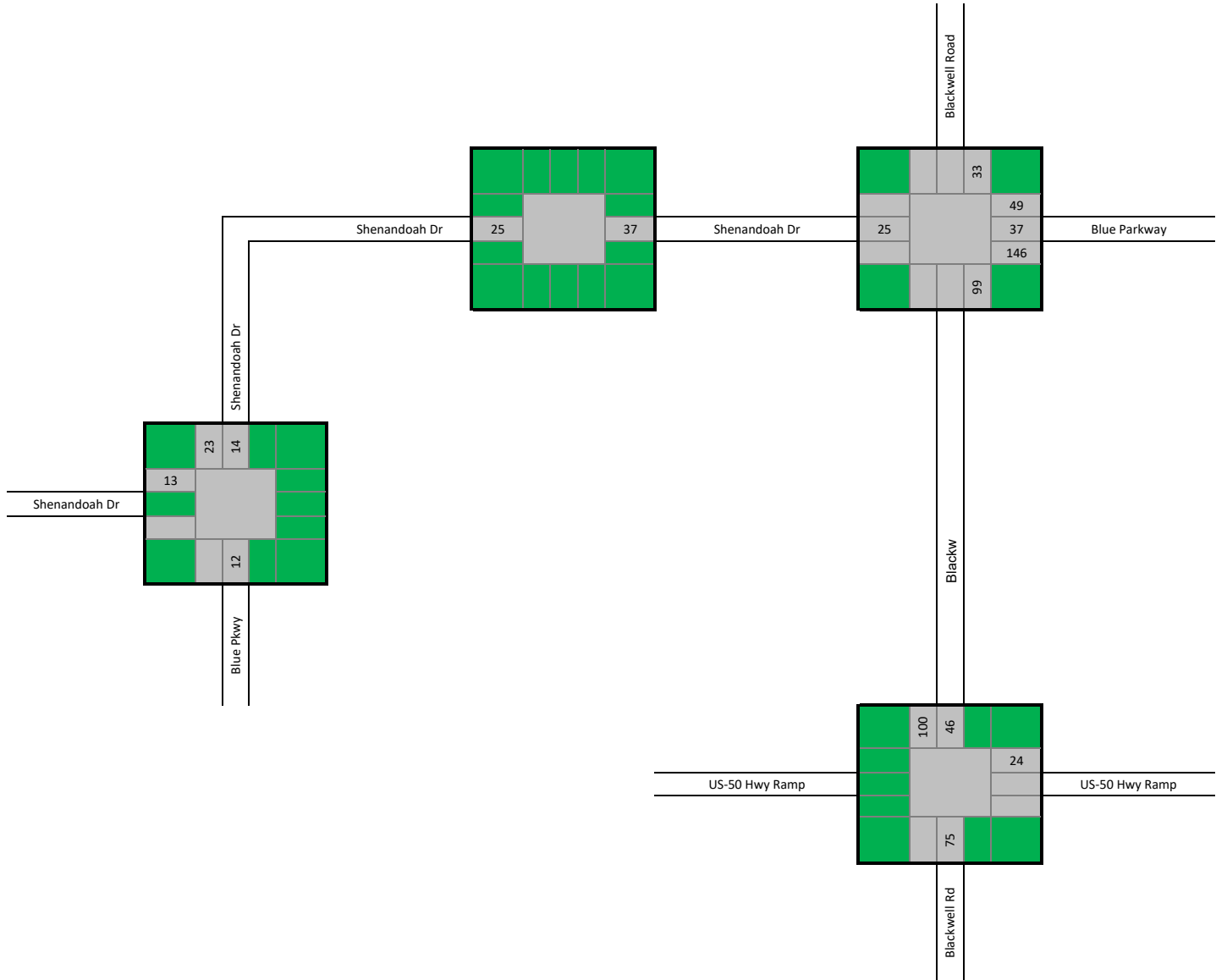
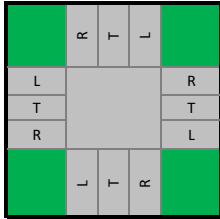
Legend



AM - Traffic Volumes from Blue Parkway Development

Blue Parkway TIS July 2021

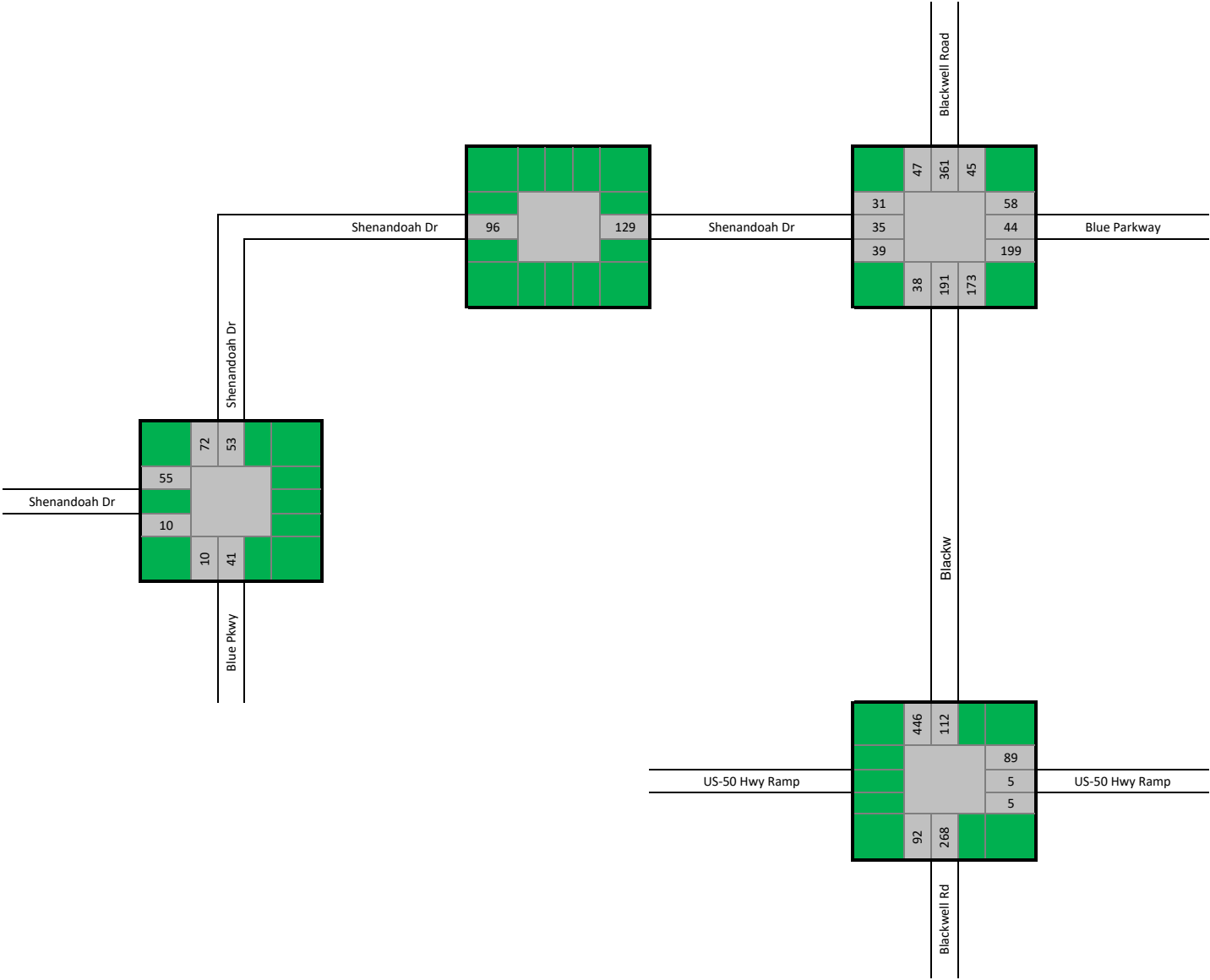
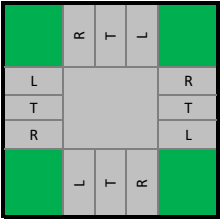
Legend



AM - Existing Peak Hour Traffic Volumes

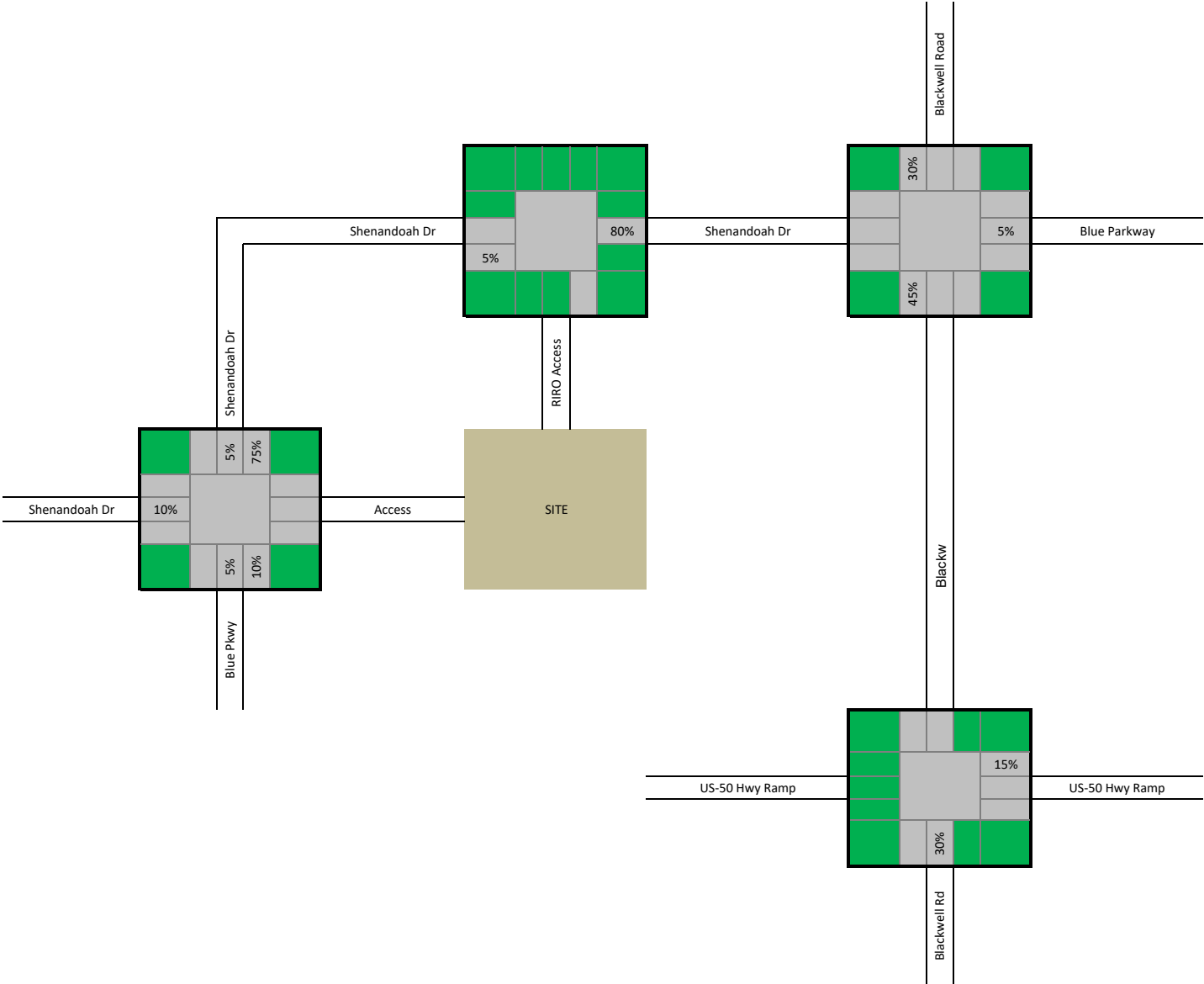
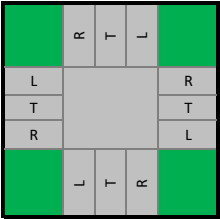
Traffic Counts plus Trips from Blue Pkwy Development TIS

Legend



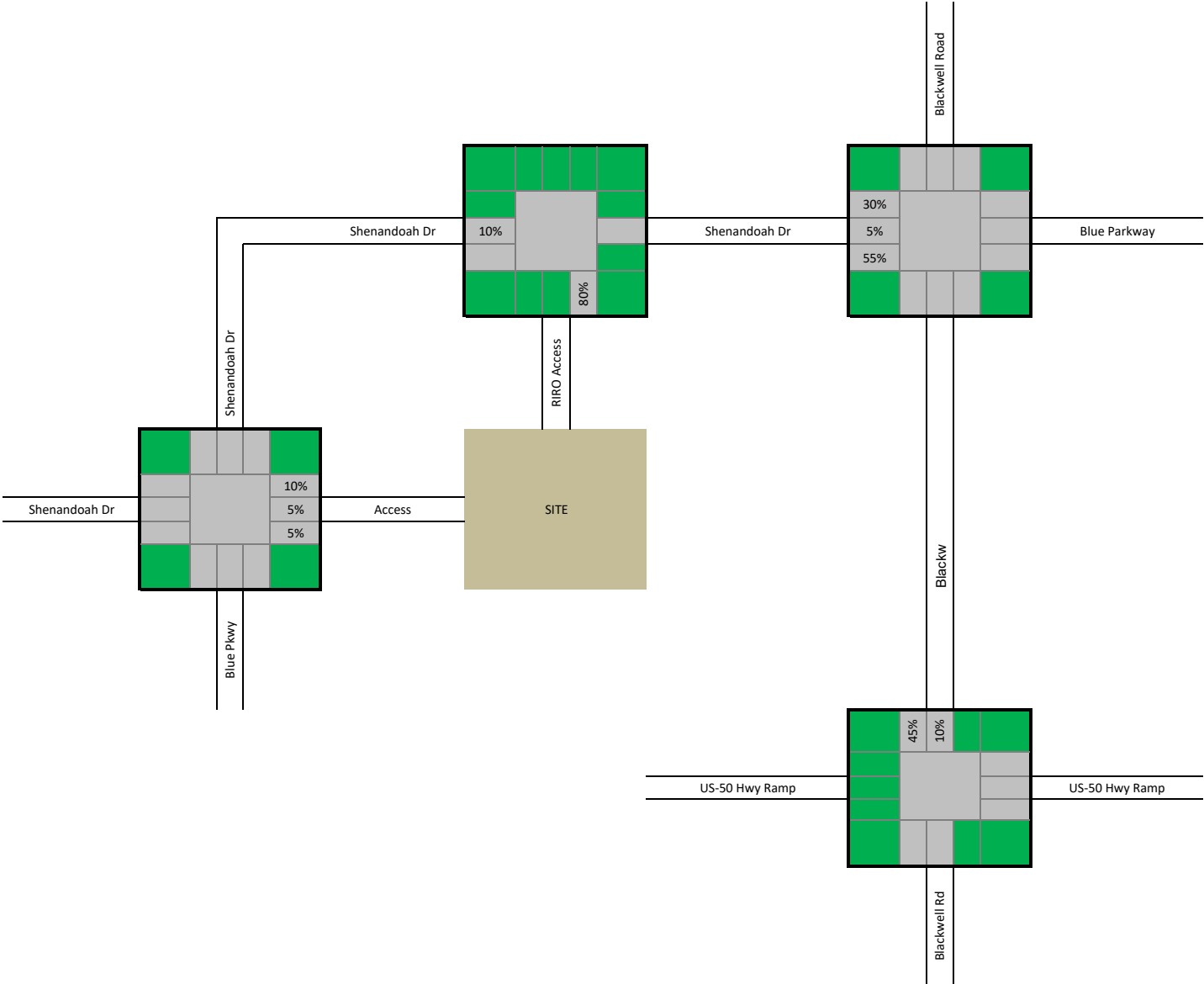
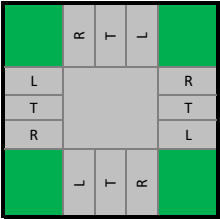
AM - Distribution In Phase I

Legend



AM - Distribution Out Phase I

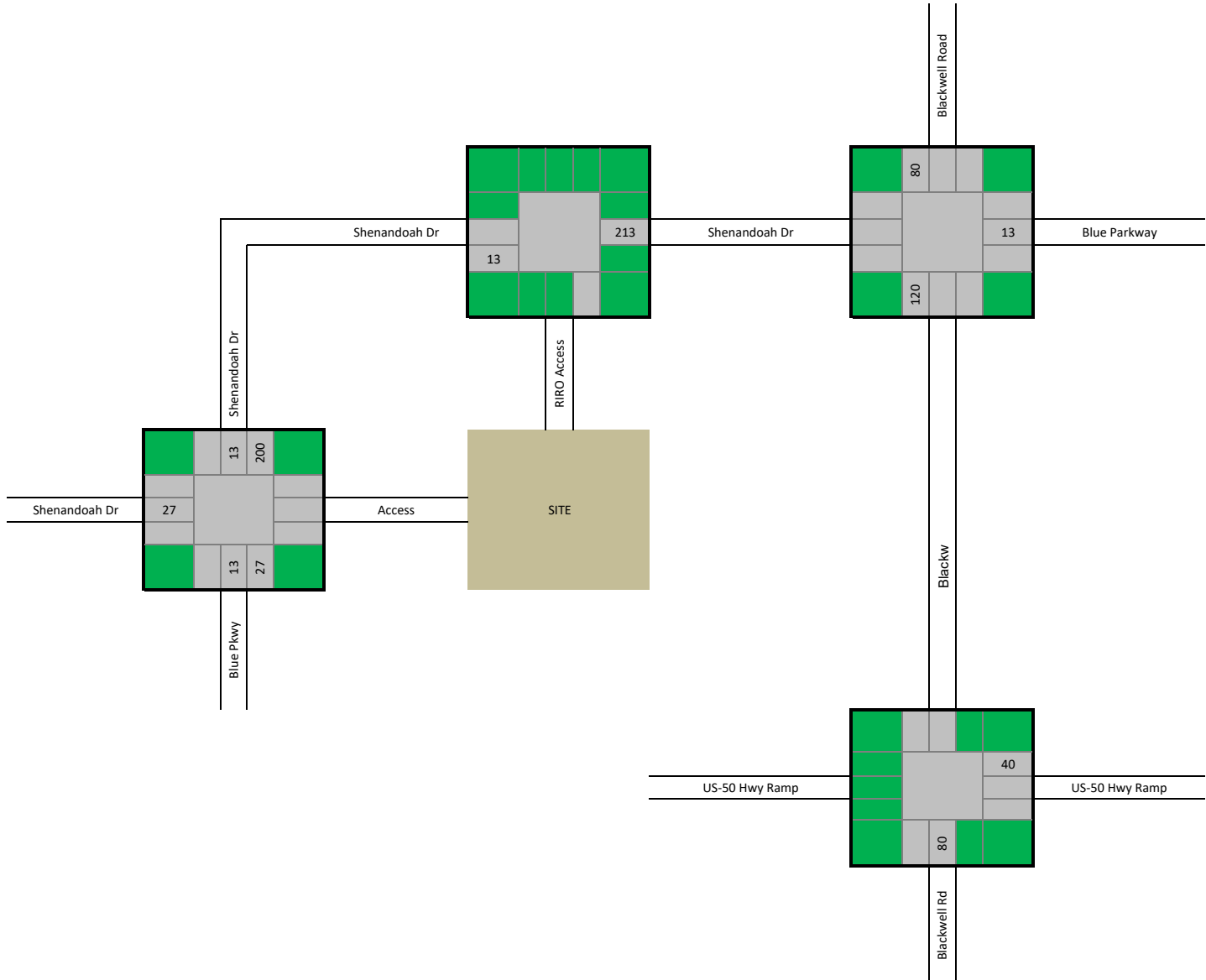
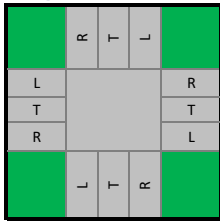
Legend



AM - Trips In Phase I

Trips
266

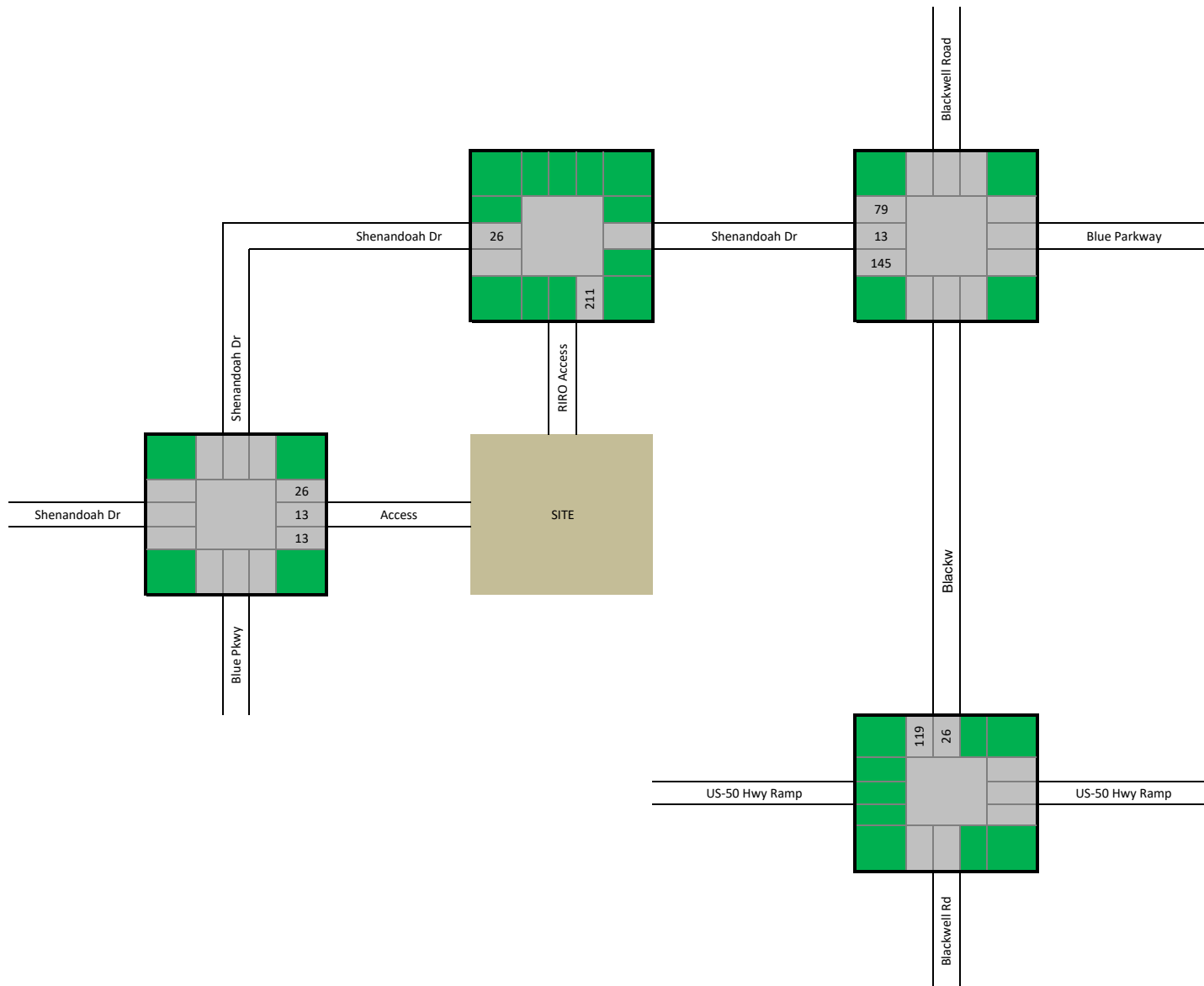
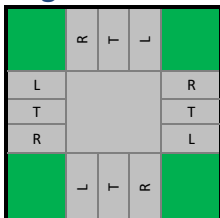
Legend



AM - Trips Out Phase I

**Trips
264**

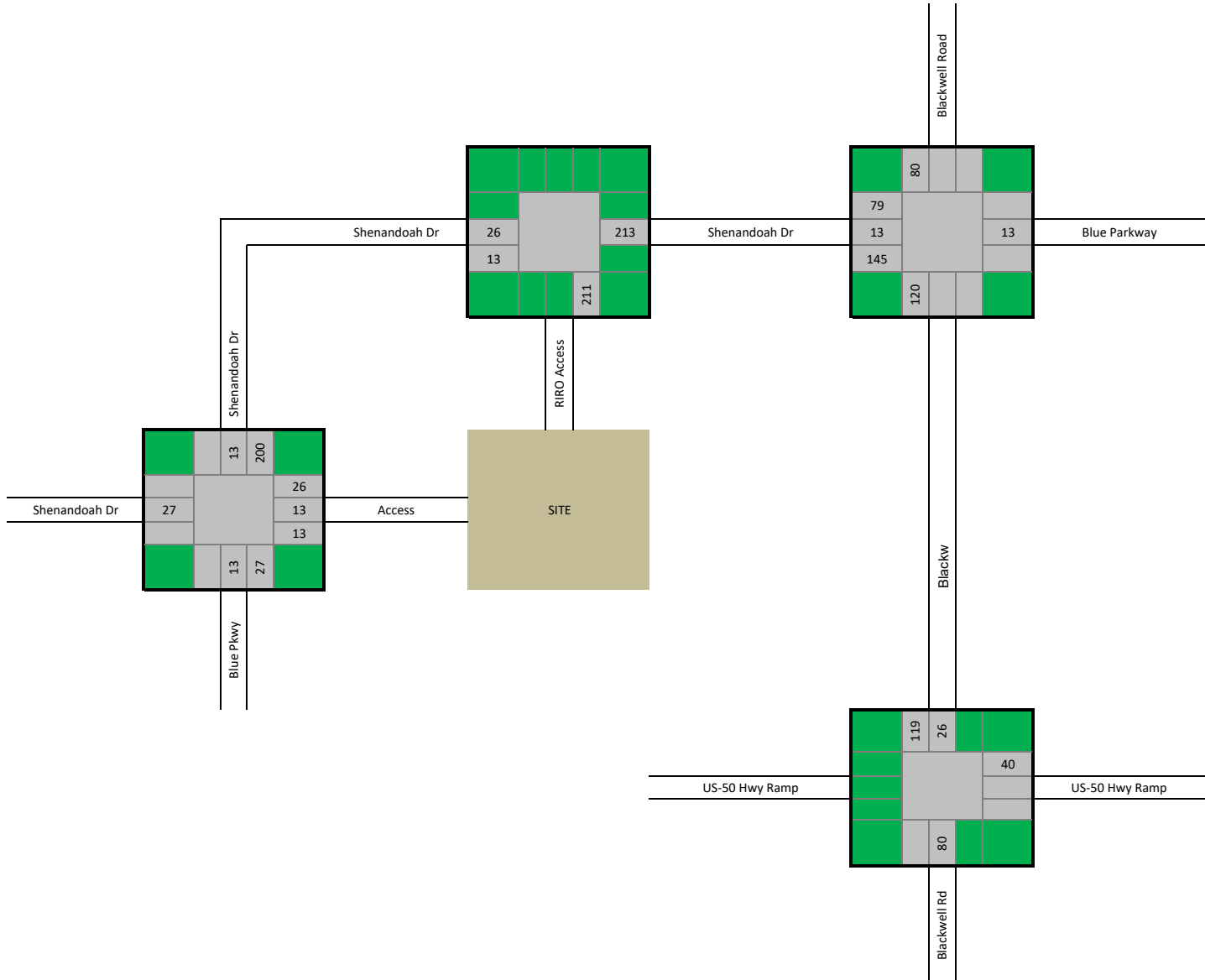
Legend



AM - Total Trips Phase I

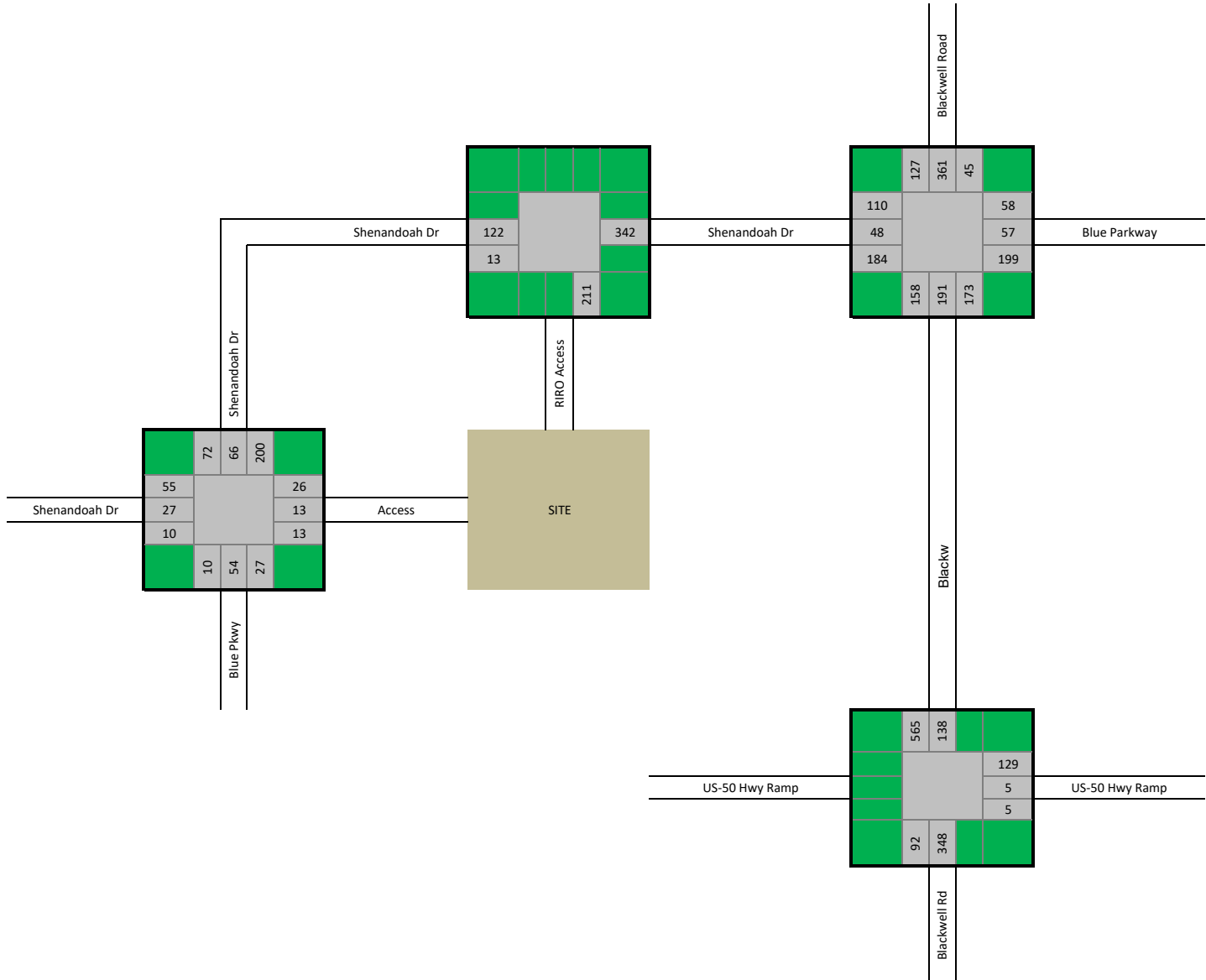
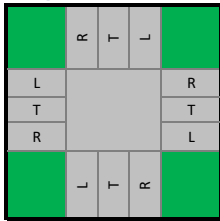
Legend

	R	T	L	
L				R
T				T
R				L
	L	T	R	



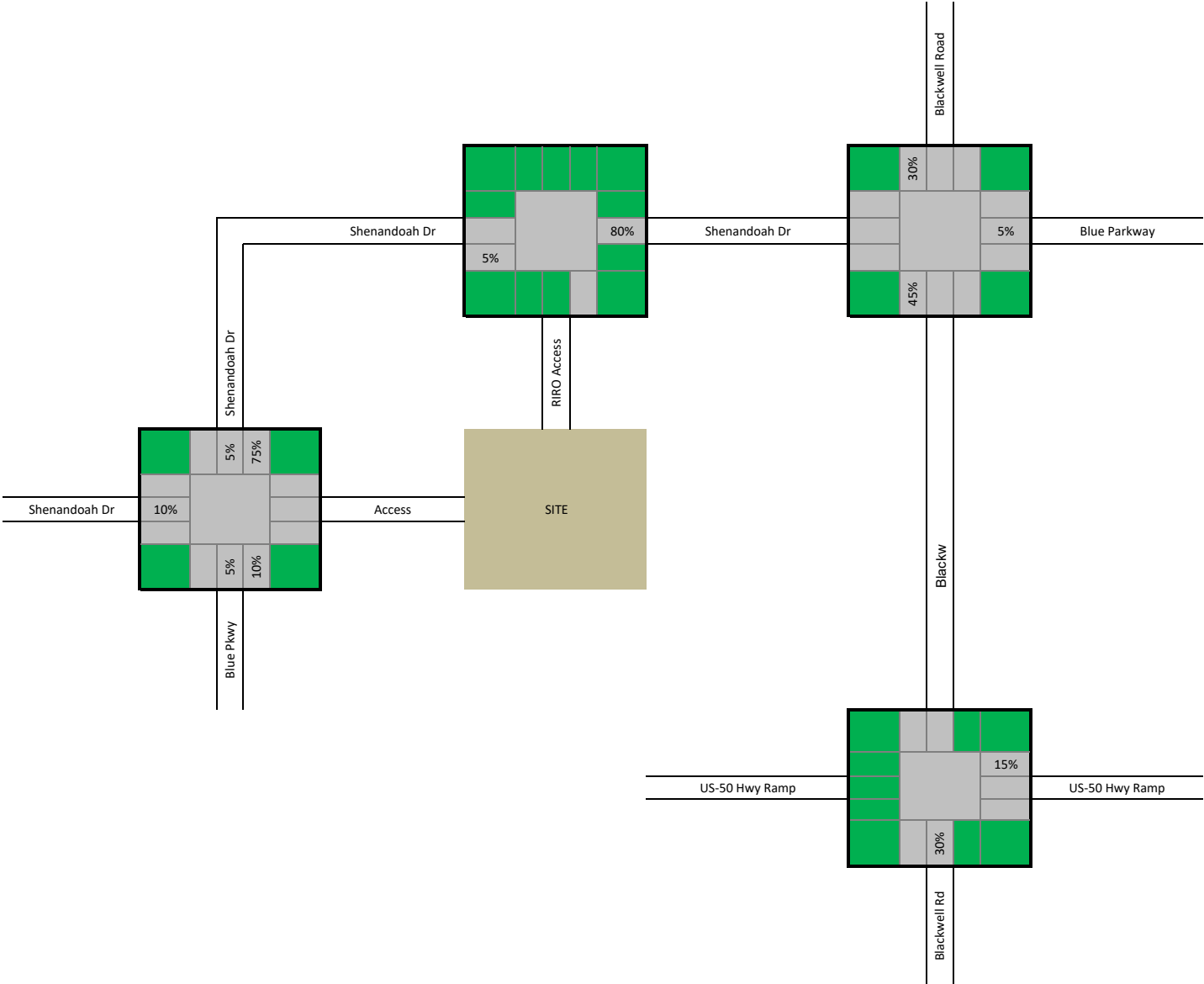
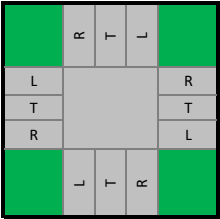
AM - Existing Counts plus Site Trips Phase I

Legend



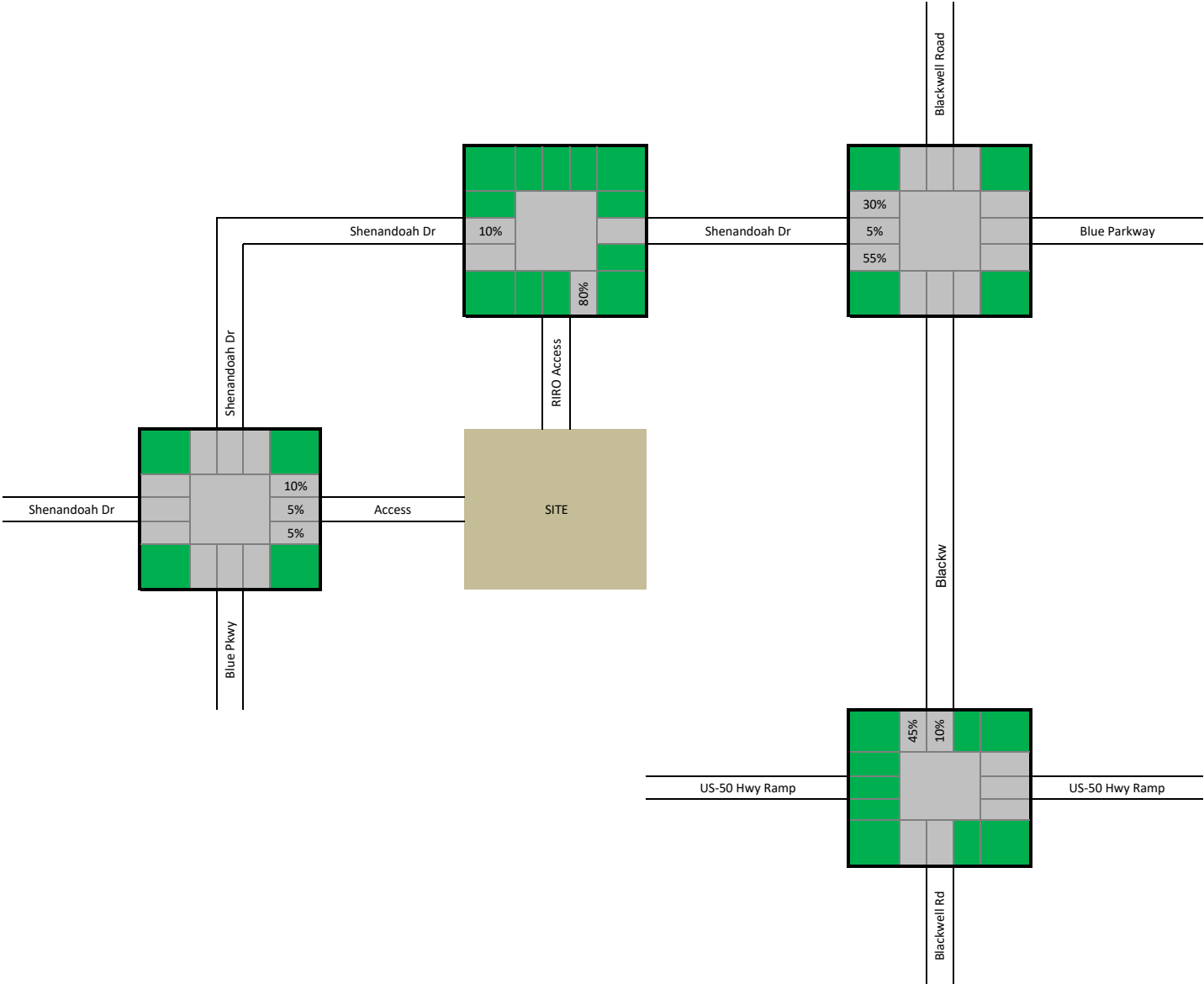
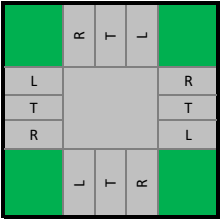
AM - Distribution In
Phase II

Legend



AM - Distribution Out
Phase II

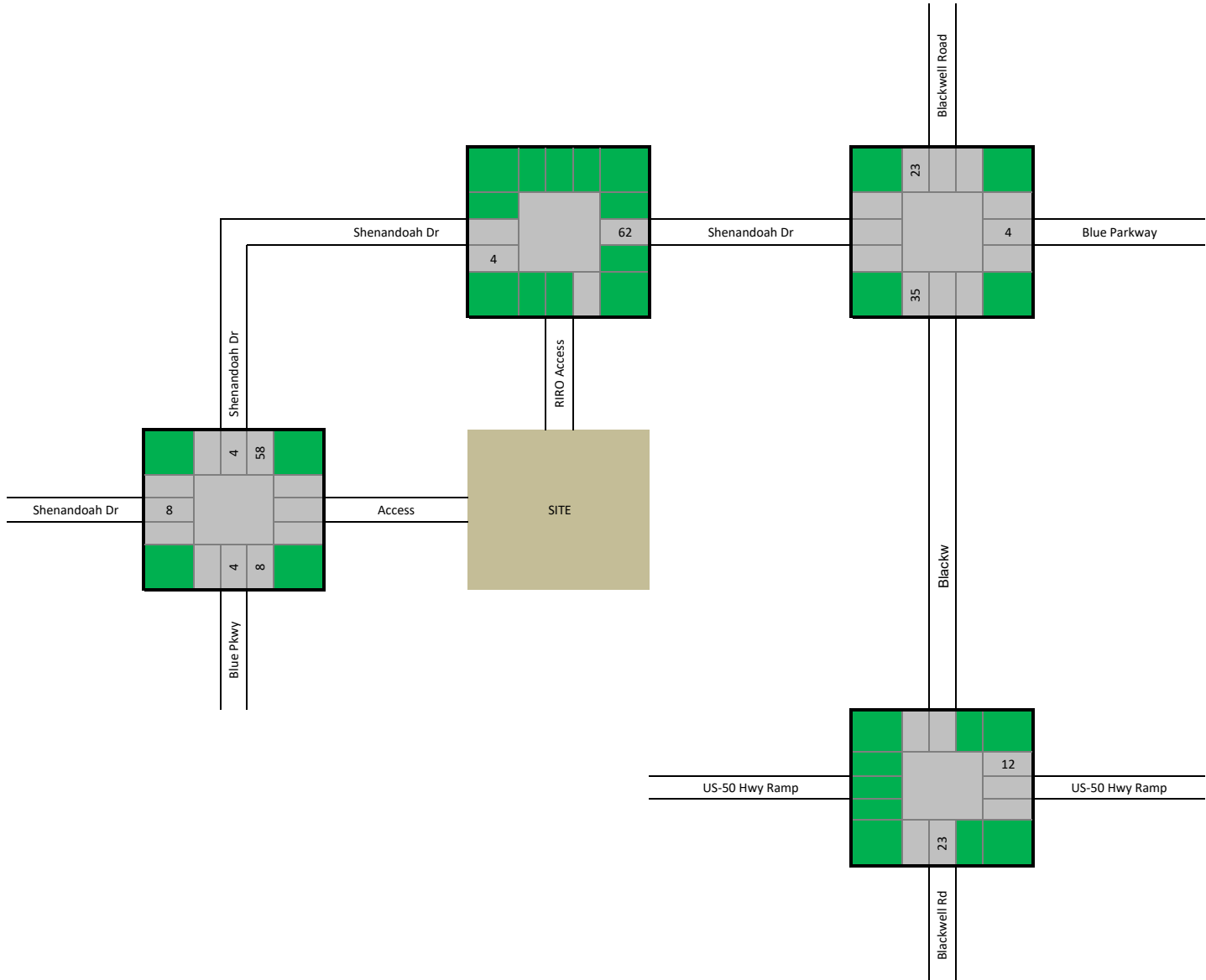
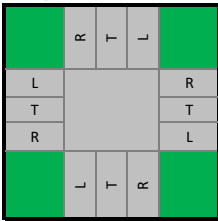
Legend



AM - Trips In Phase II

**Trips
77**

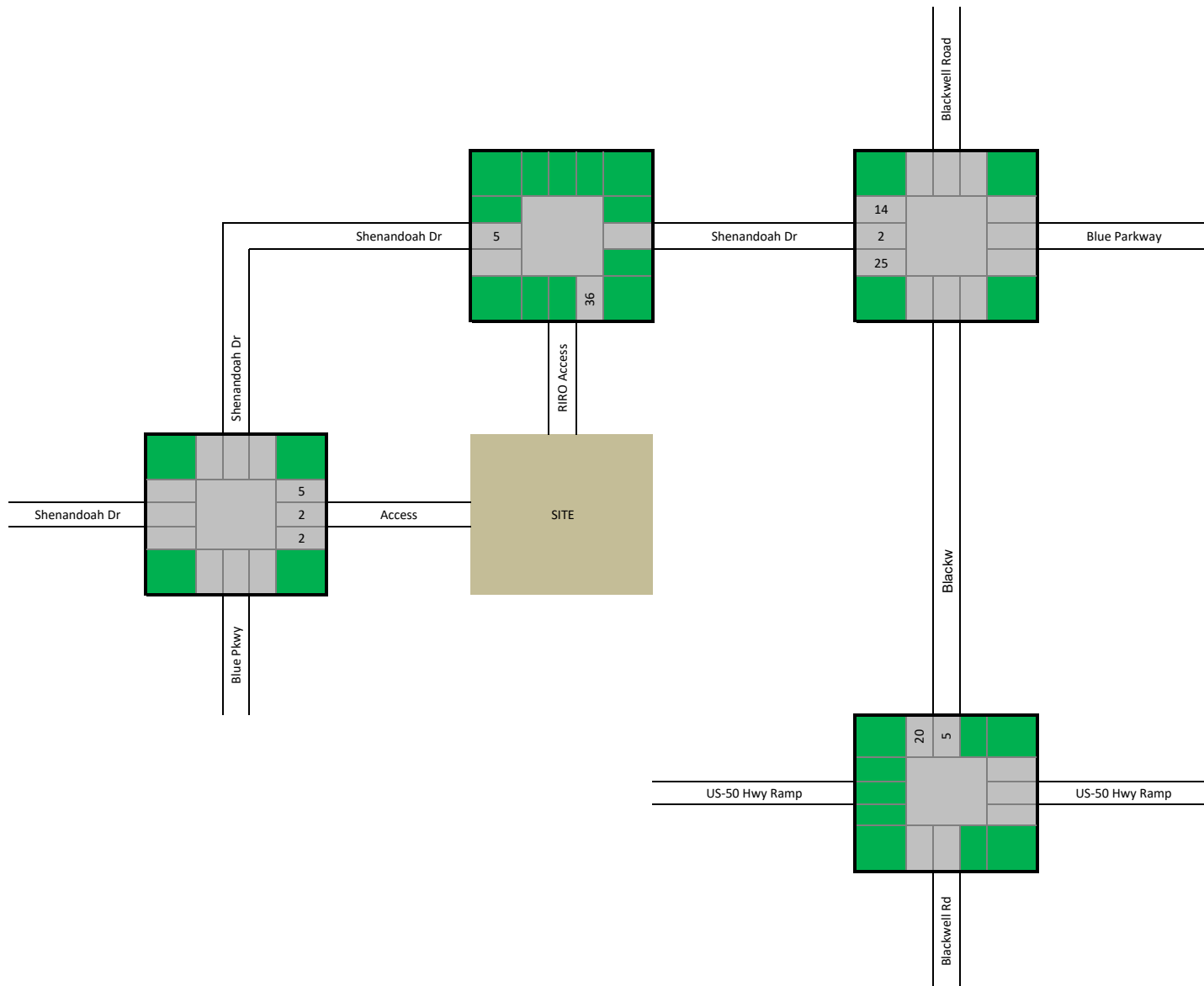
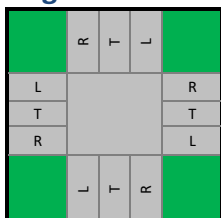
Legend



AM - Trips Out Phase II

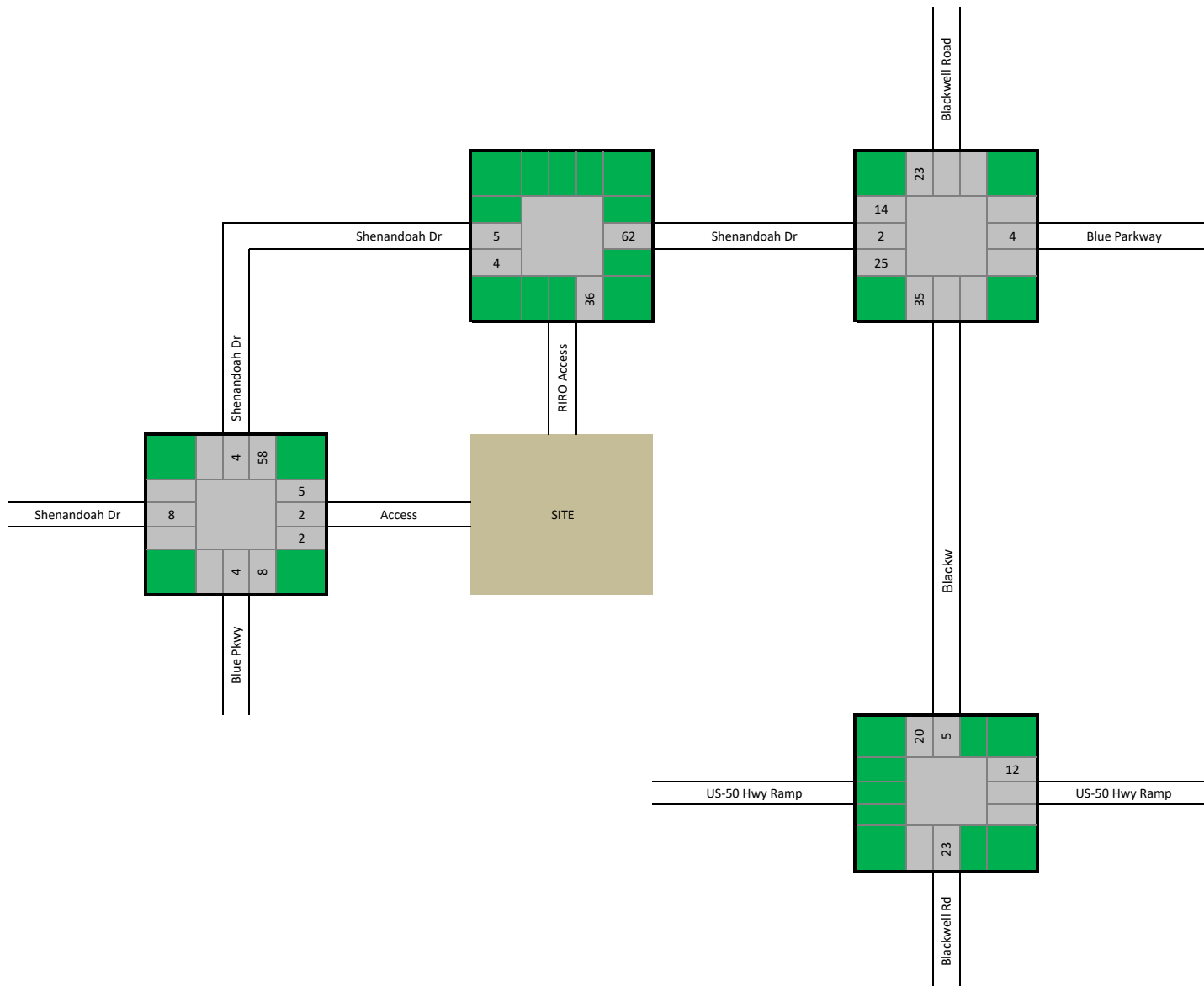
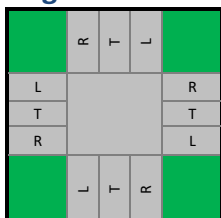
Trips
45

Legend



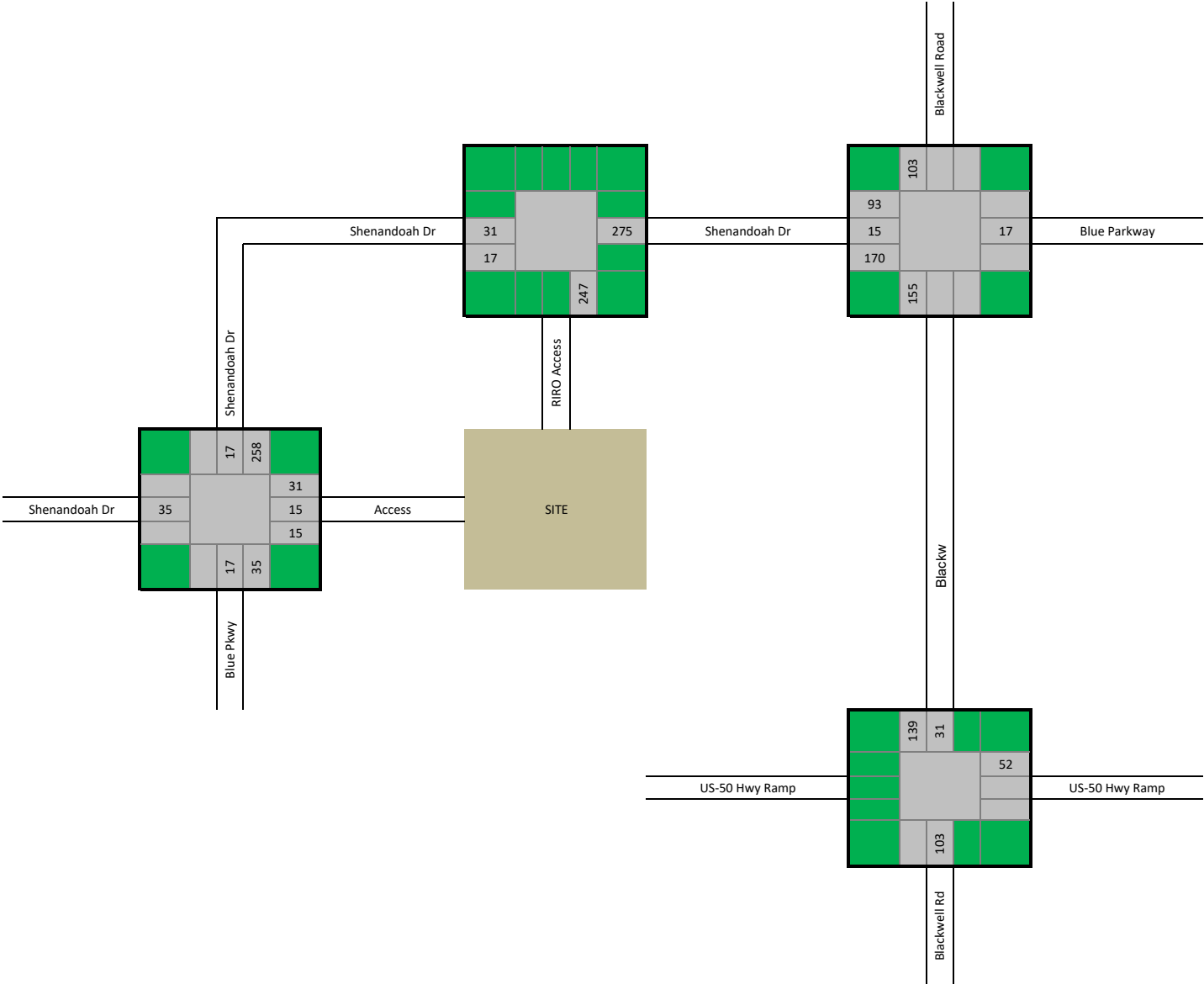
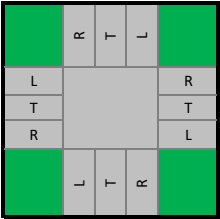
AM - Total Trips Phase II

Legend



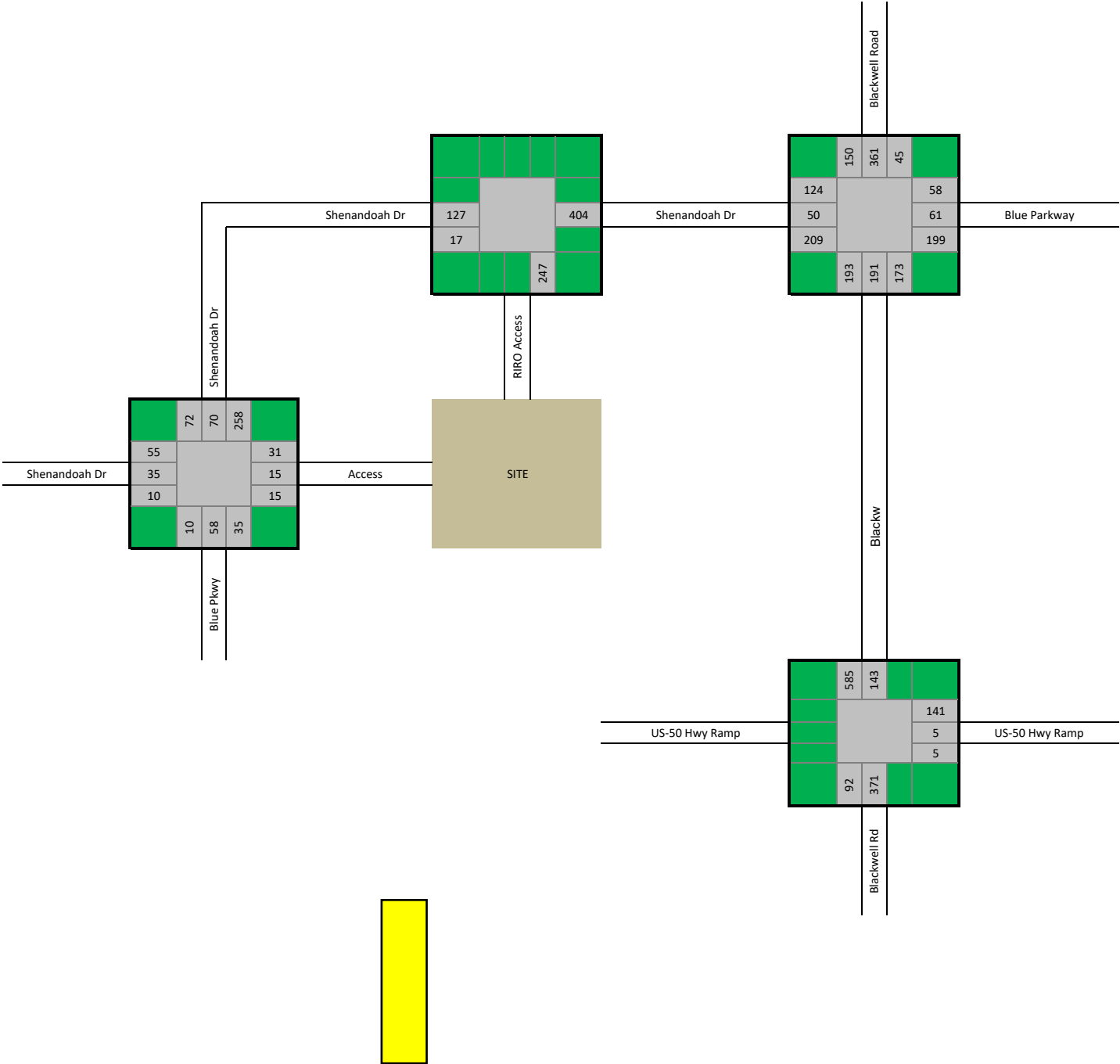
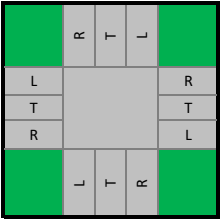
AM - Total Trips
Phase II

Legend



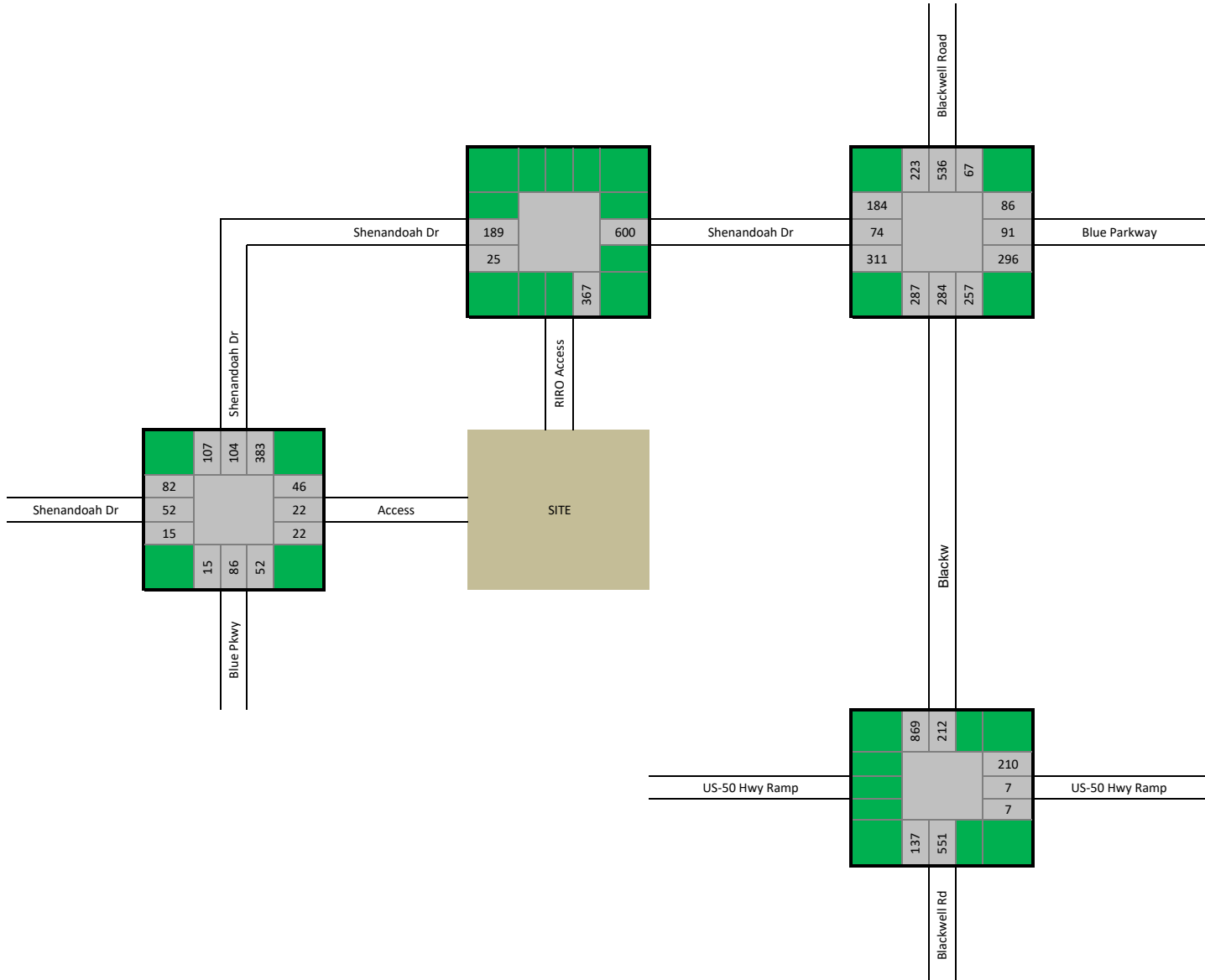
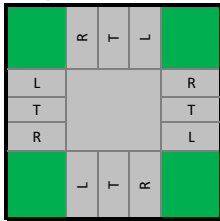
AM - Existing Counts plus Site Trips
Phase I & II

Legend



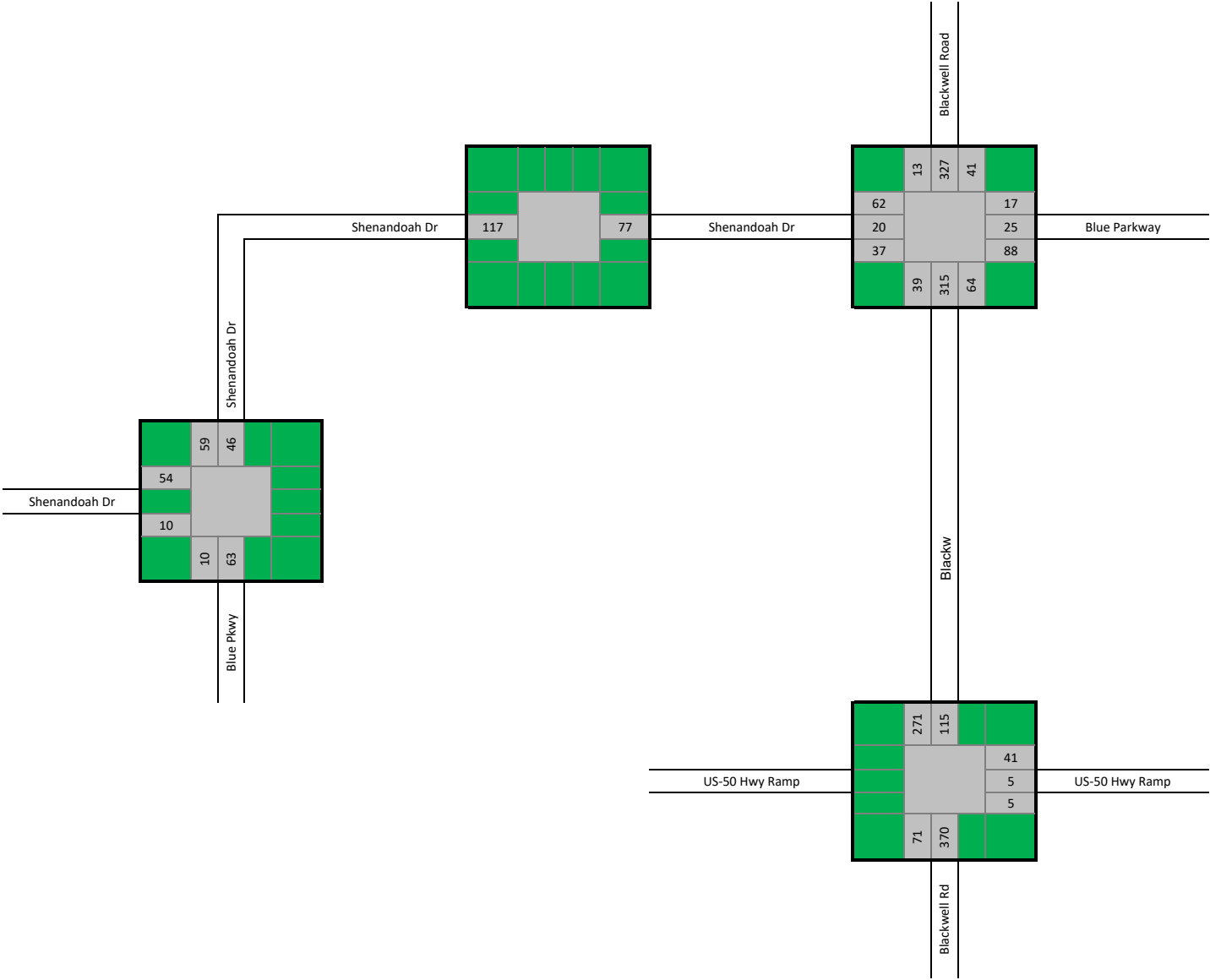
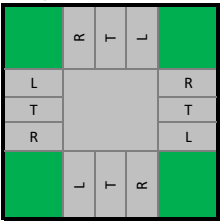
AM - Future Volumes

Legend



PM - Existing Peak Hour Traffic Counts

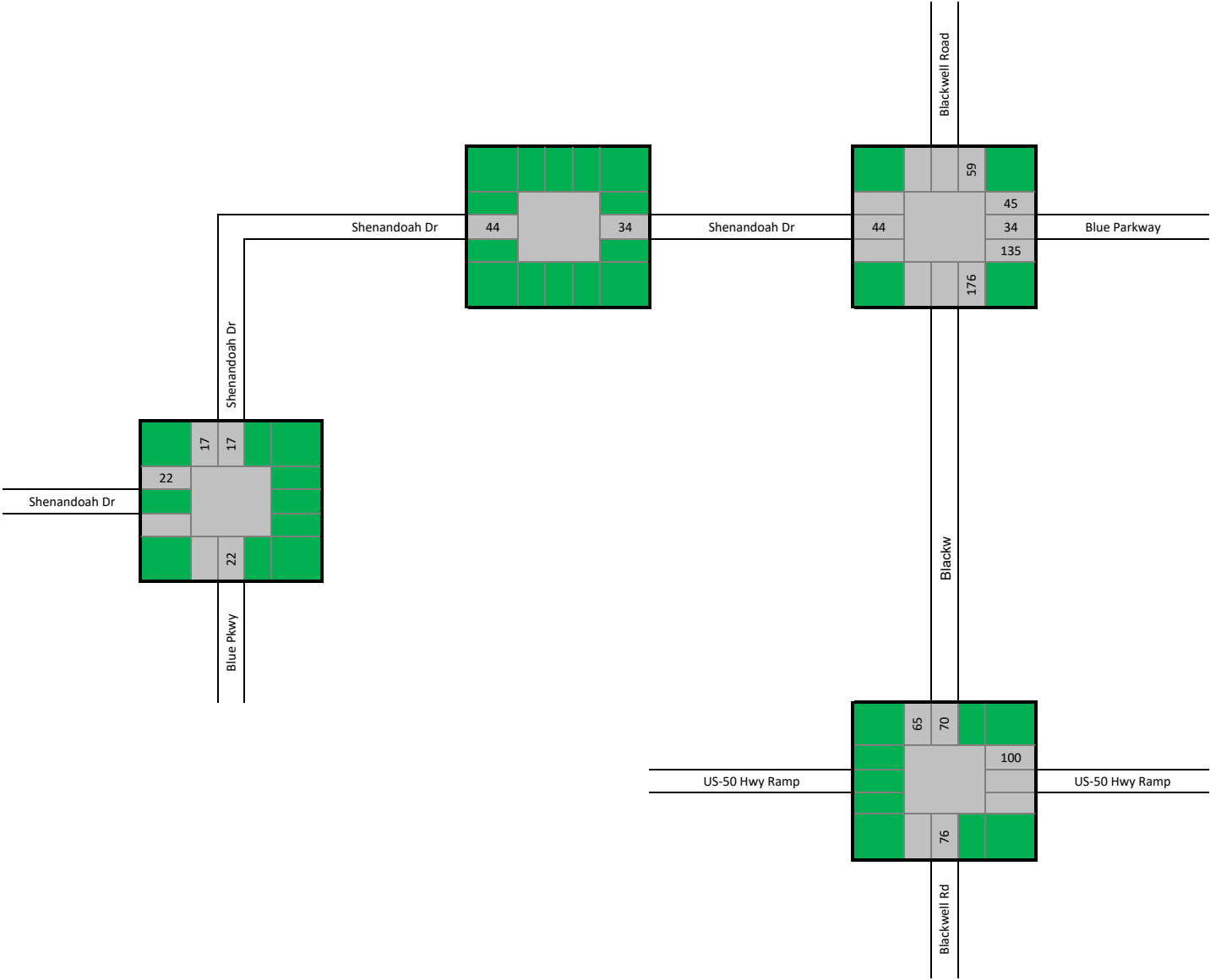
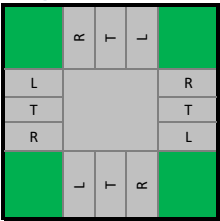
Legend



PM - Traffic Volumes from Blue Parkway Development

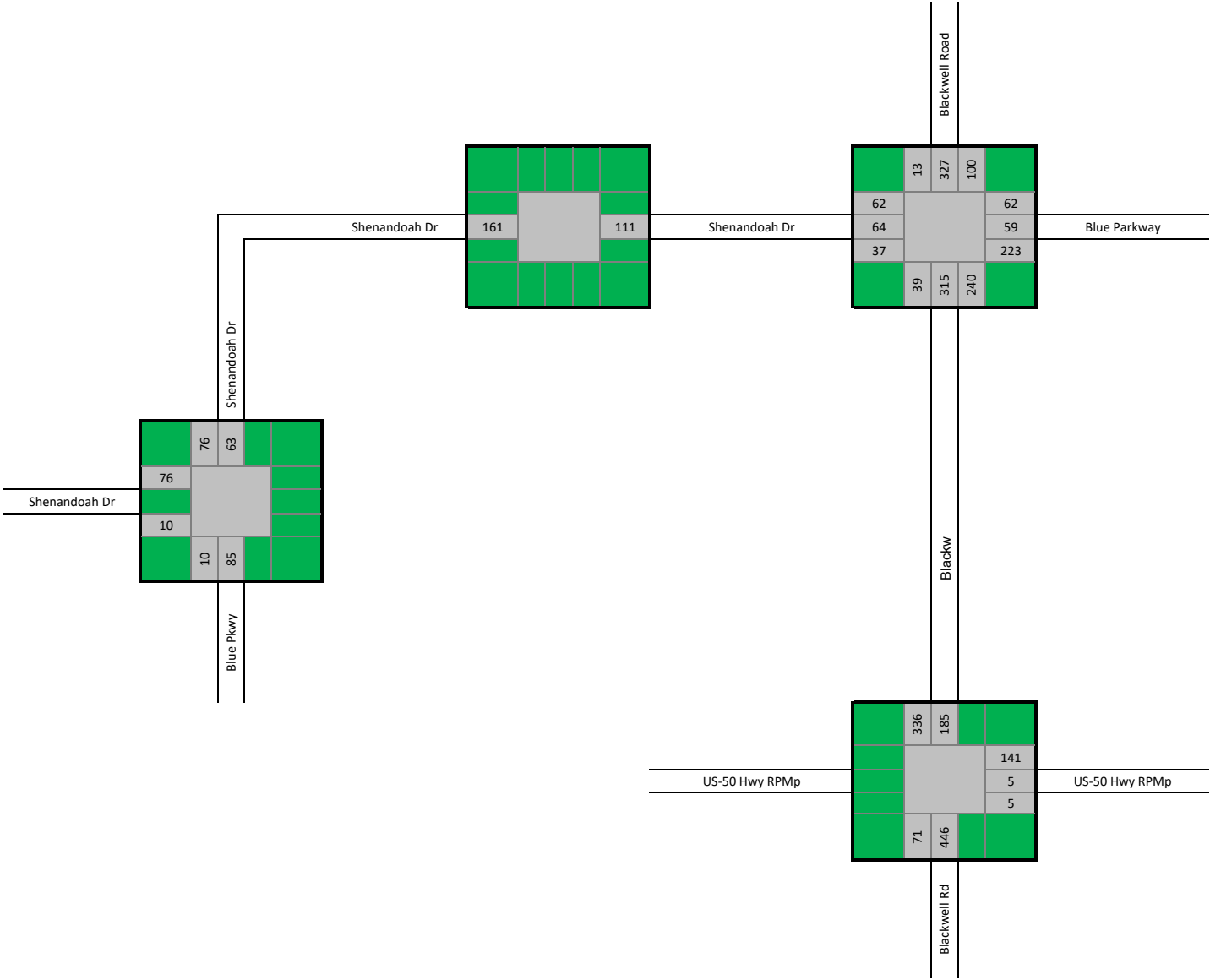
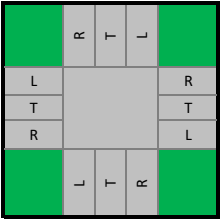
Blue Parkway TIS July 2021

Legend



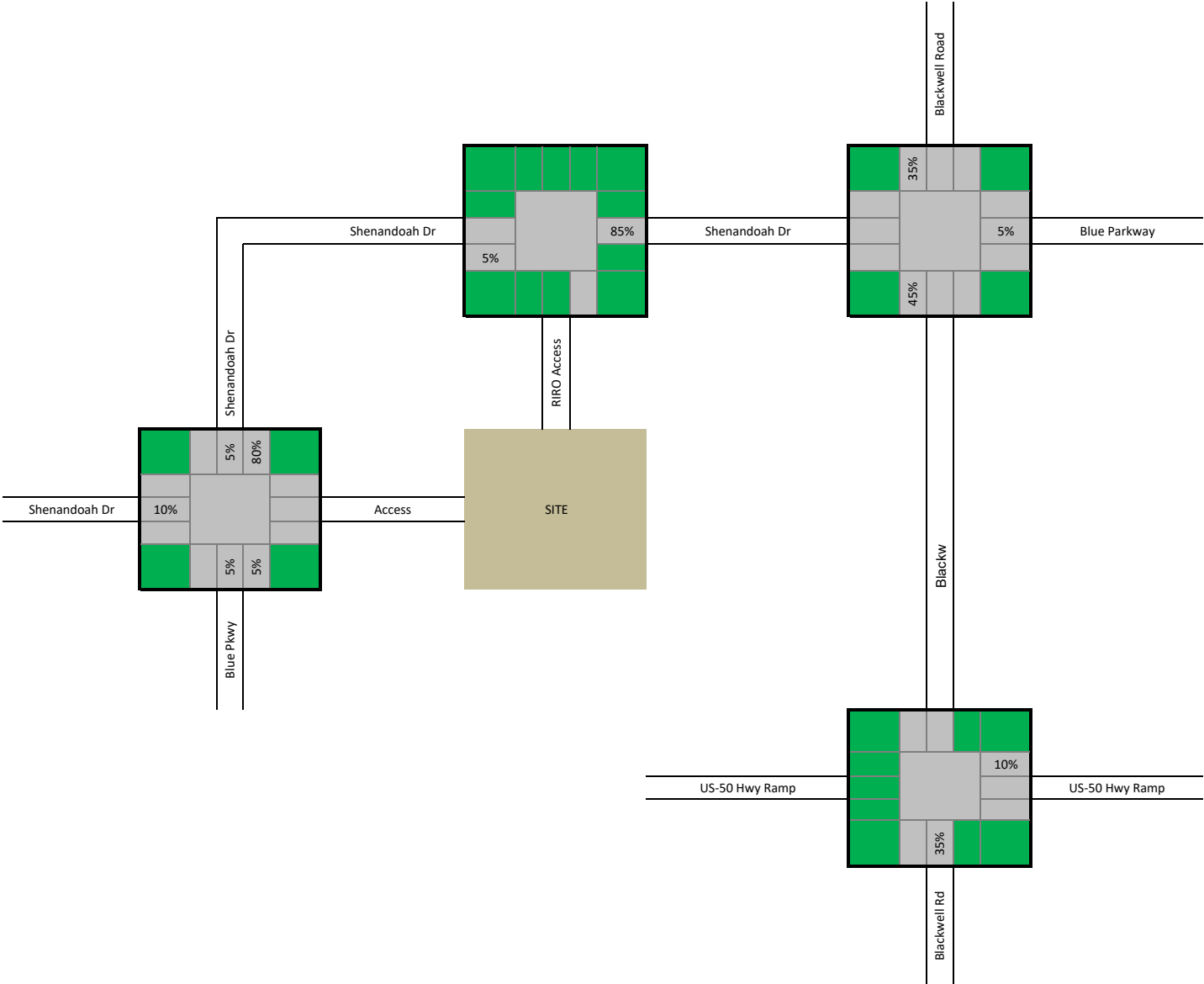
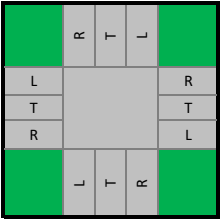
PM - Existing Peak Hour Traffic Counts

Legend



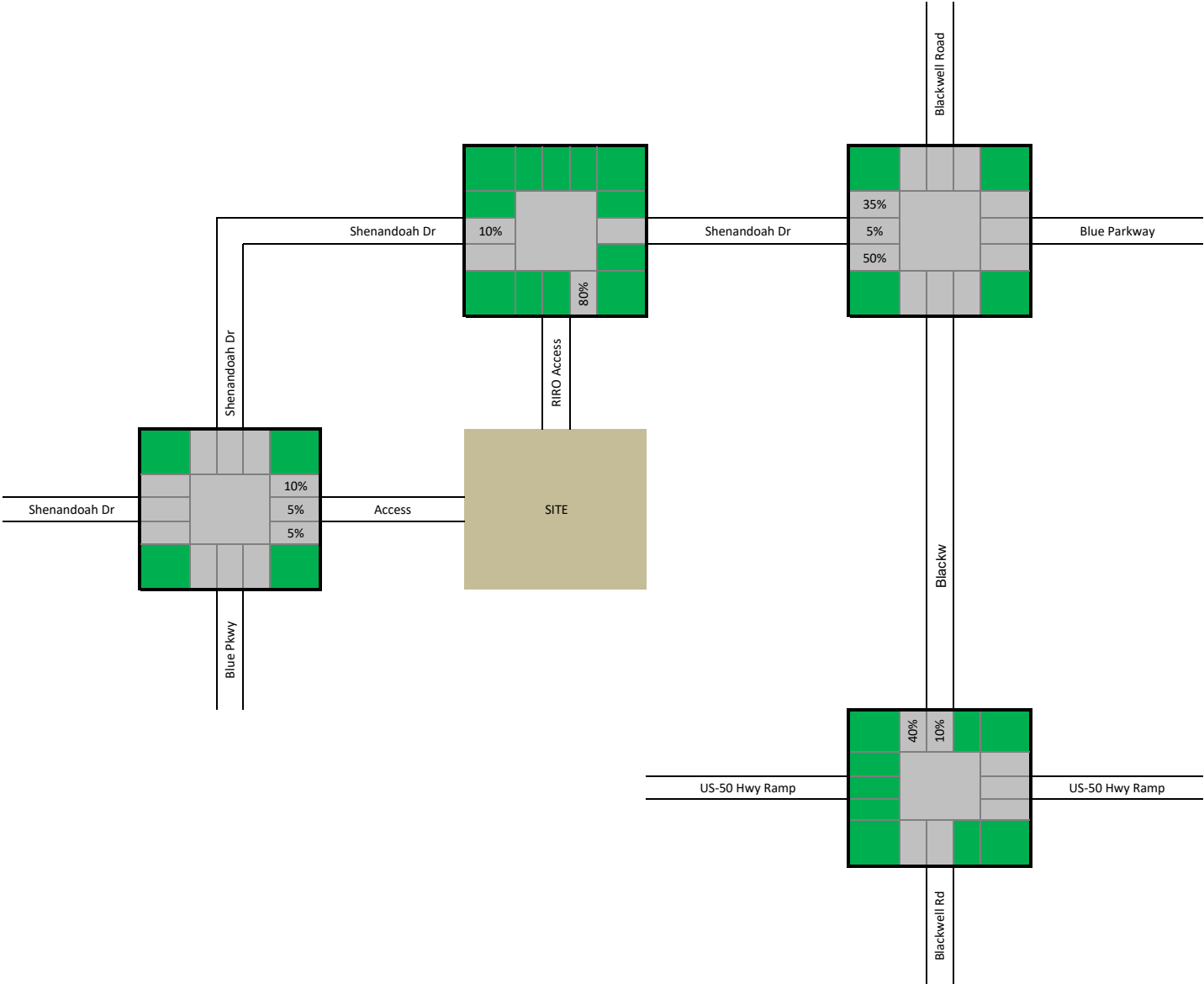
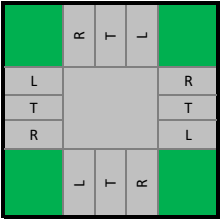
PM - Distribution In Phase 1

Legend



PM - Distribution Out Phase 1

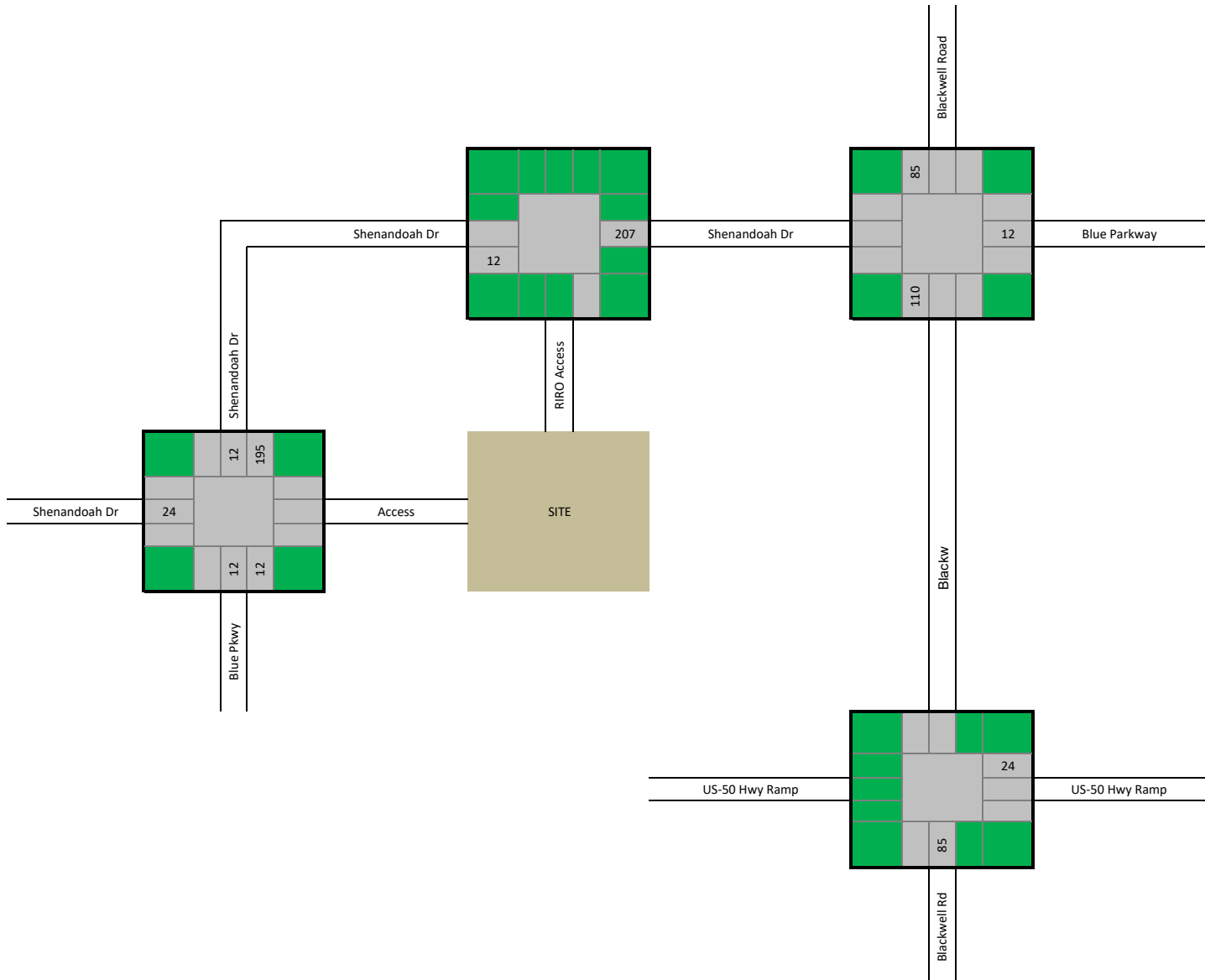
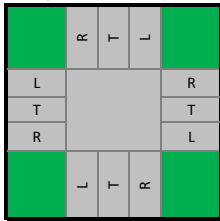
Legend



PM - Trips In Phase 1

Trips
244

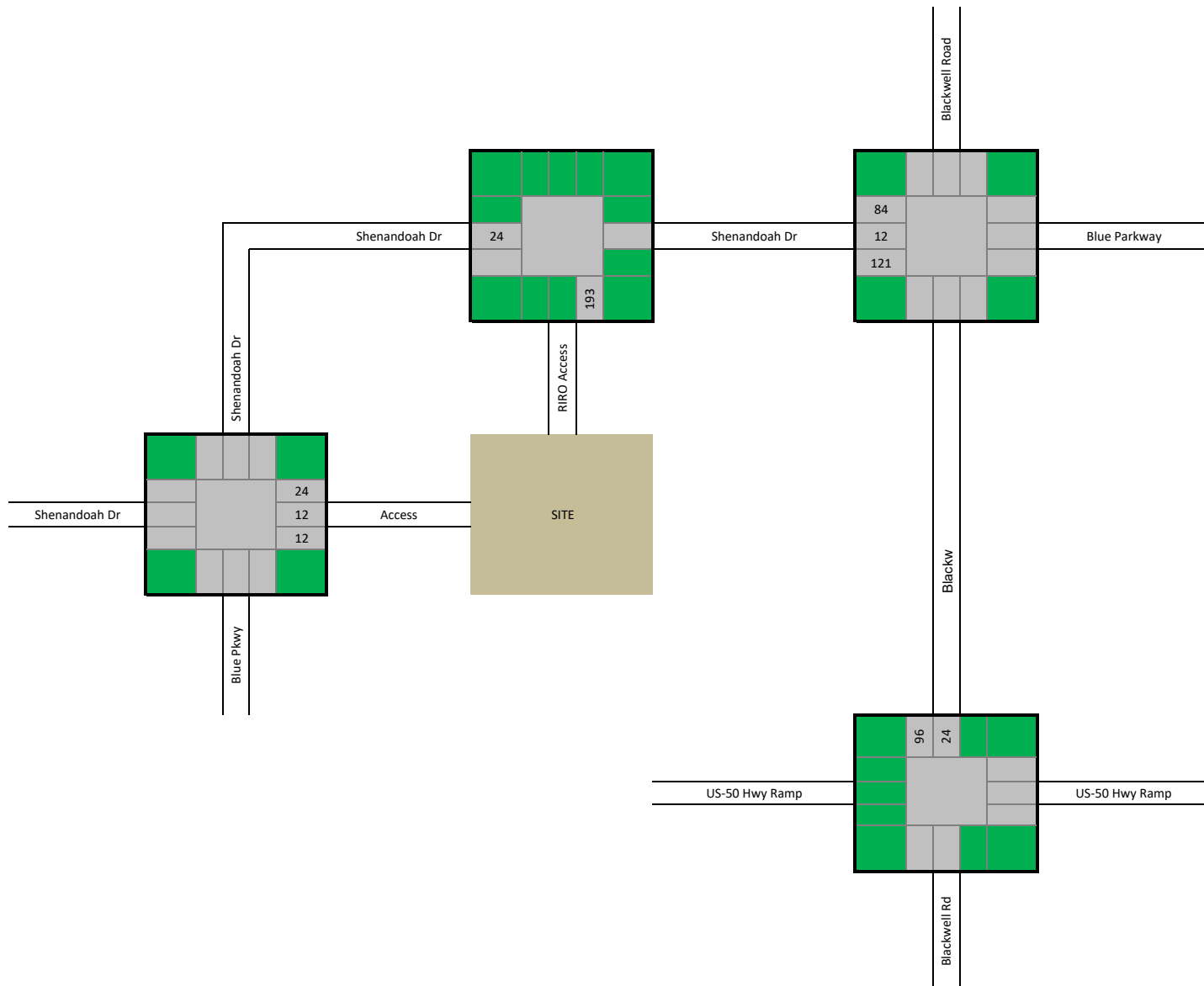
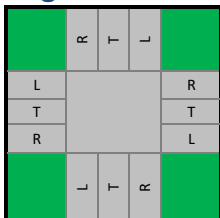
Legend



PM - Trips Out
Phase 1

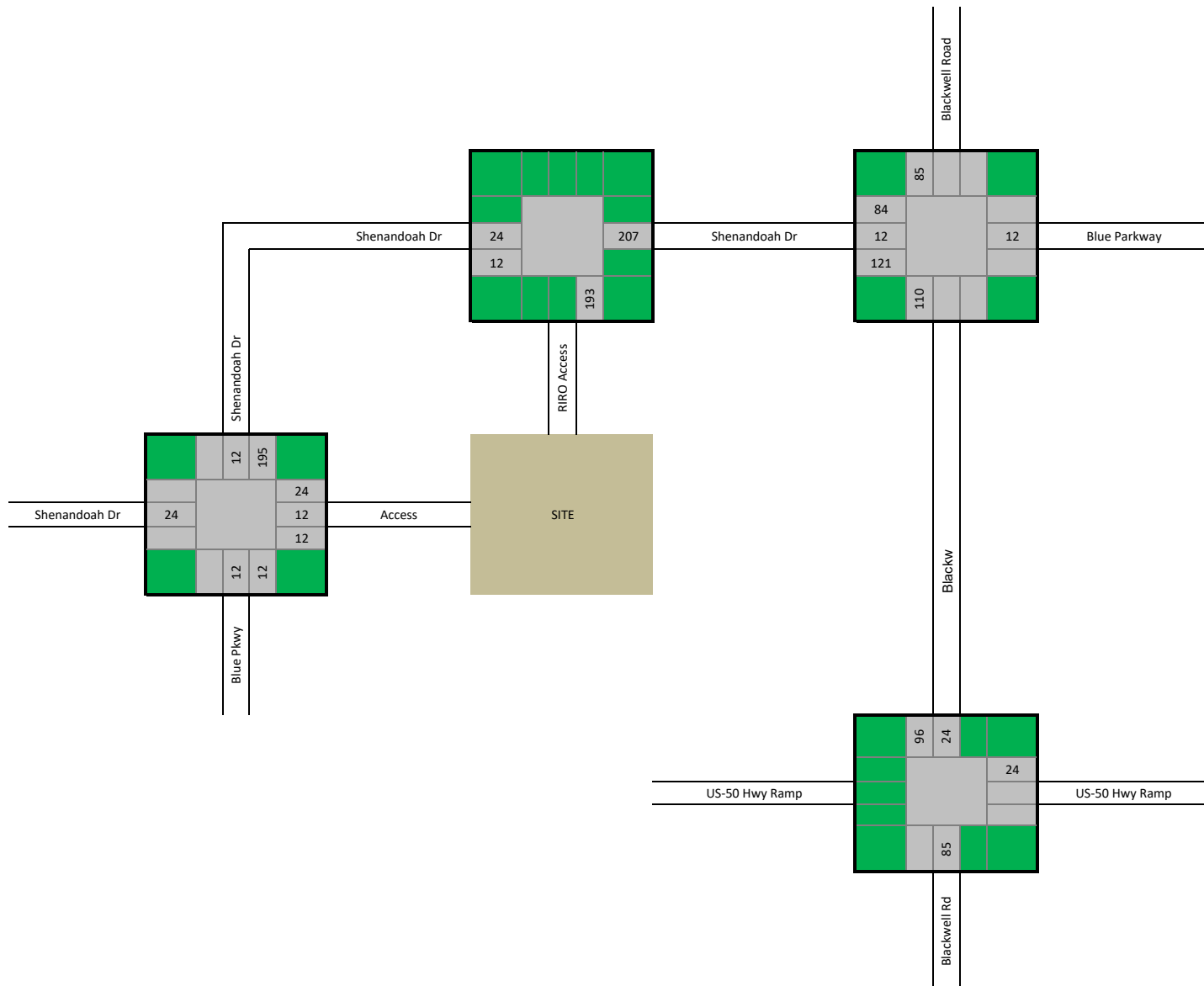
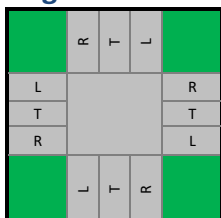
Trips
241

Legend



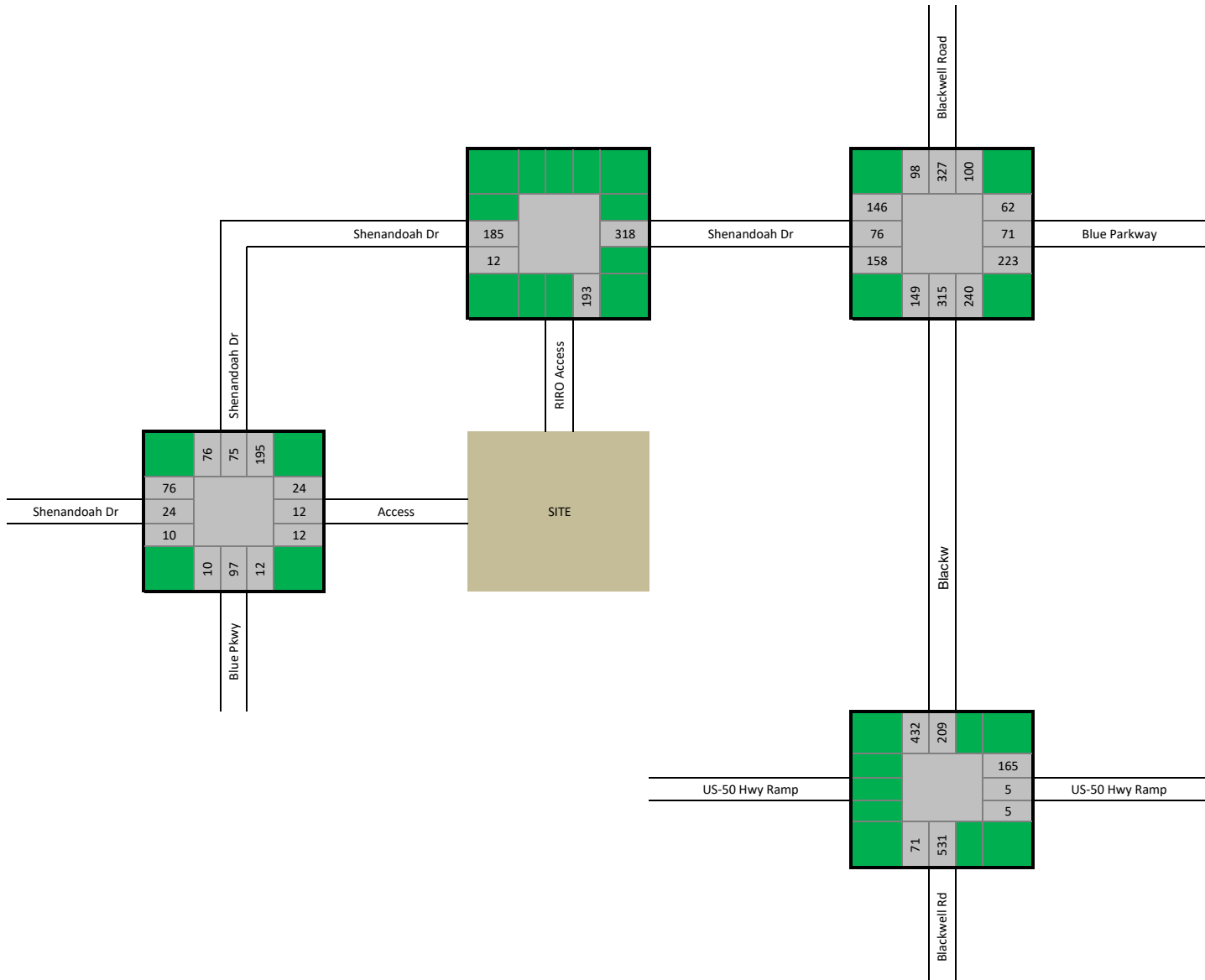
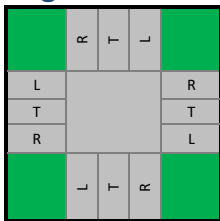
PM - Total Trips Phase 1

Legend



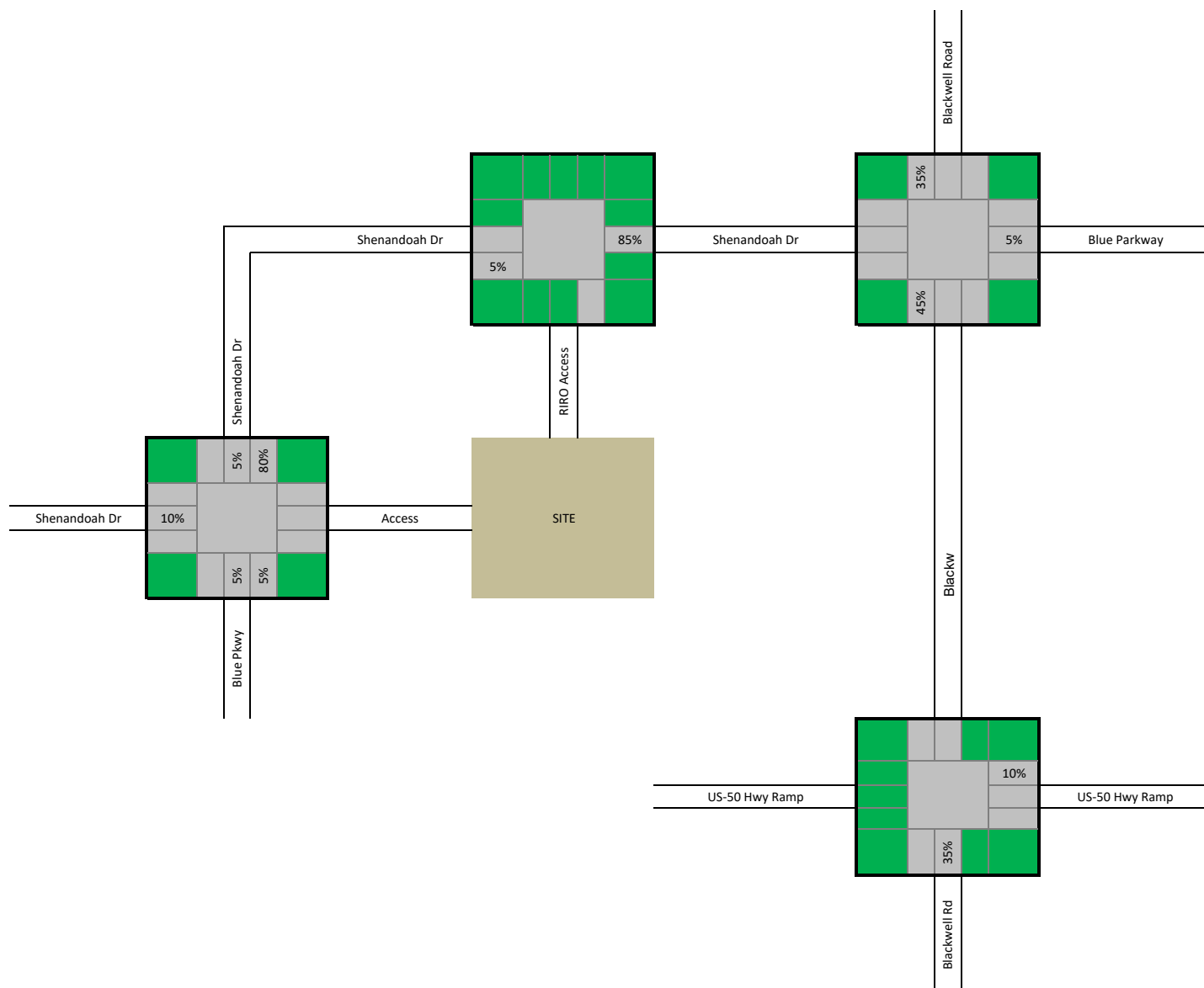
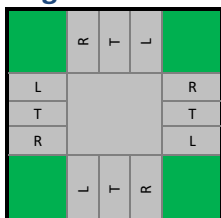
PM - Existing Counts plus Site Trips Phase 1

Legend



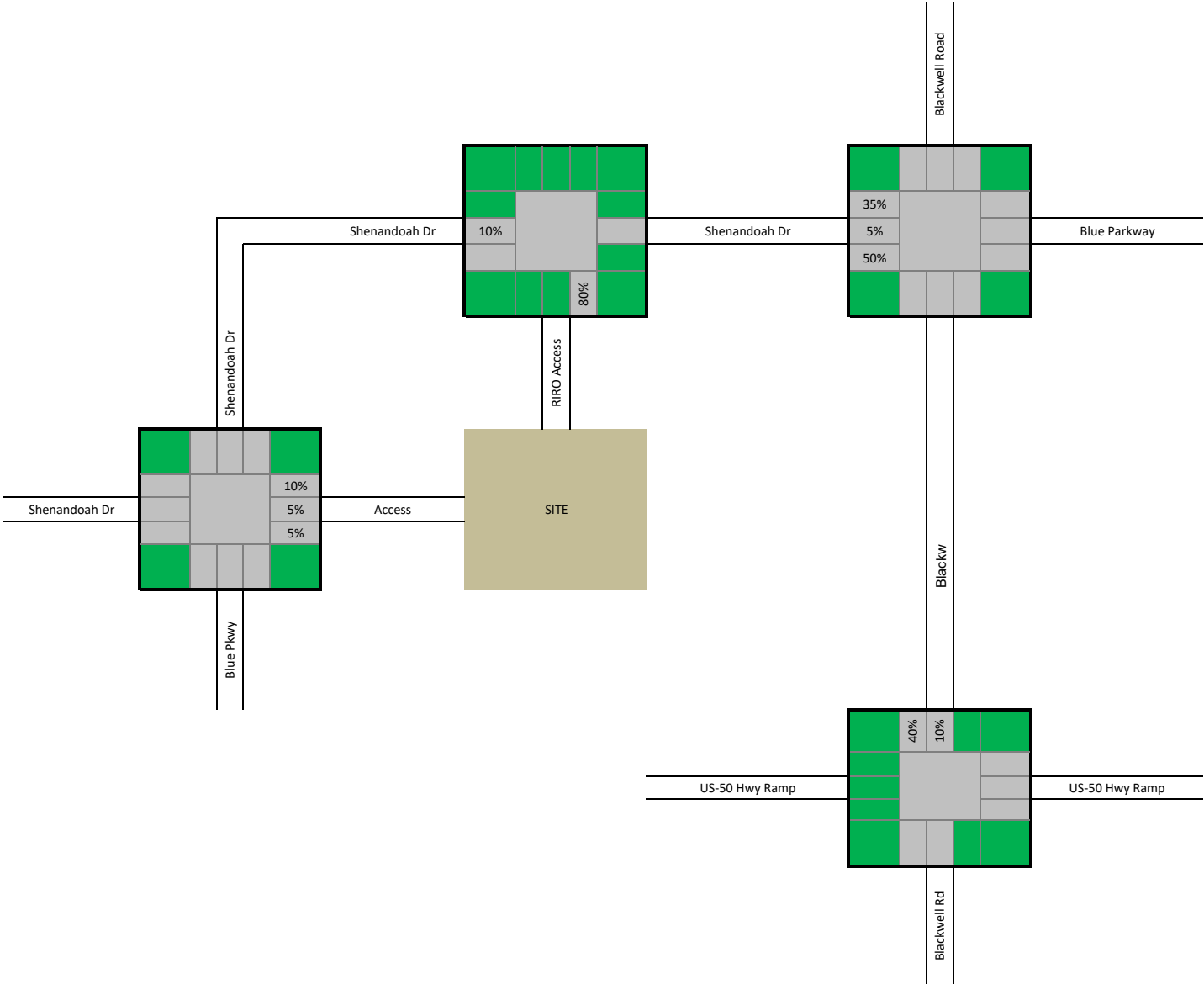
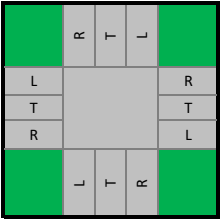
PM - Distribution In Phase 2

Legend



PM - Distribution Out Phase 2

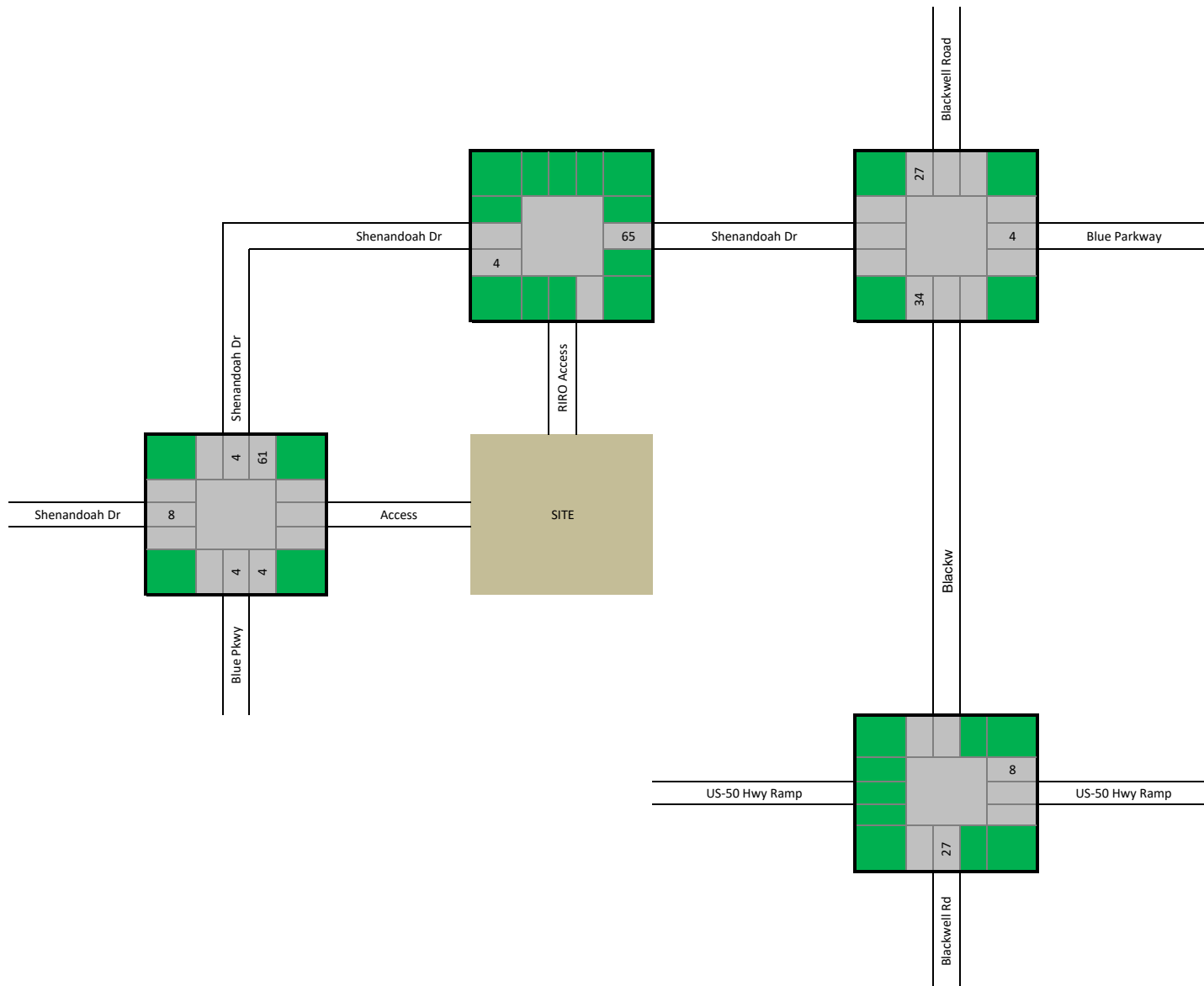
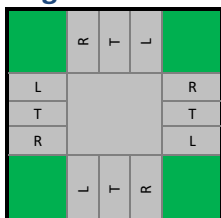
Legend



PM - Trips In
Phase 2

Trips
76

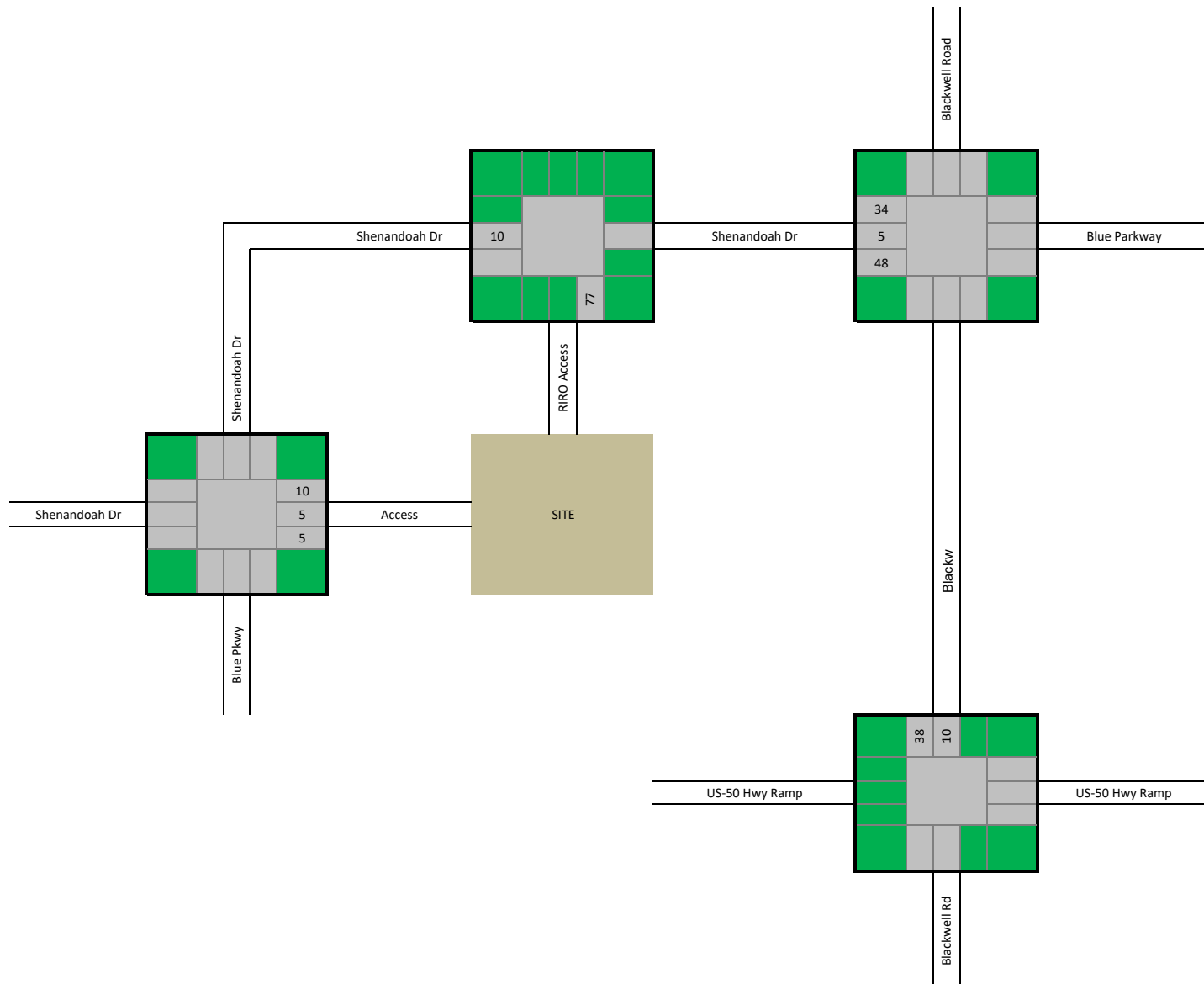
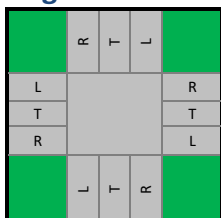
Legend



PM - Trips Out Phase 2

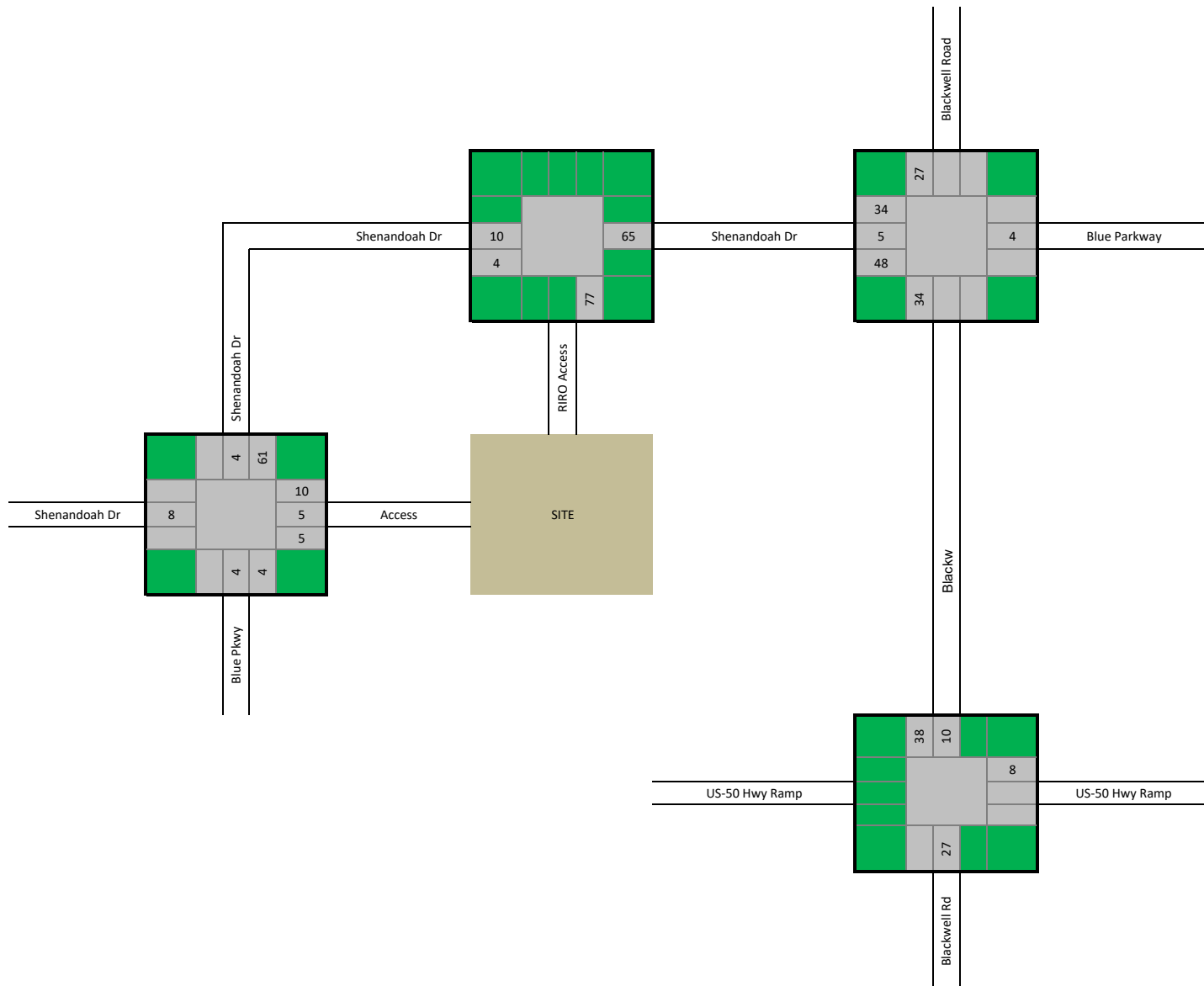
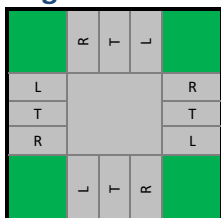
Trips
96

Legend



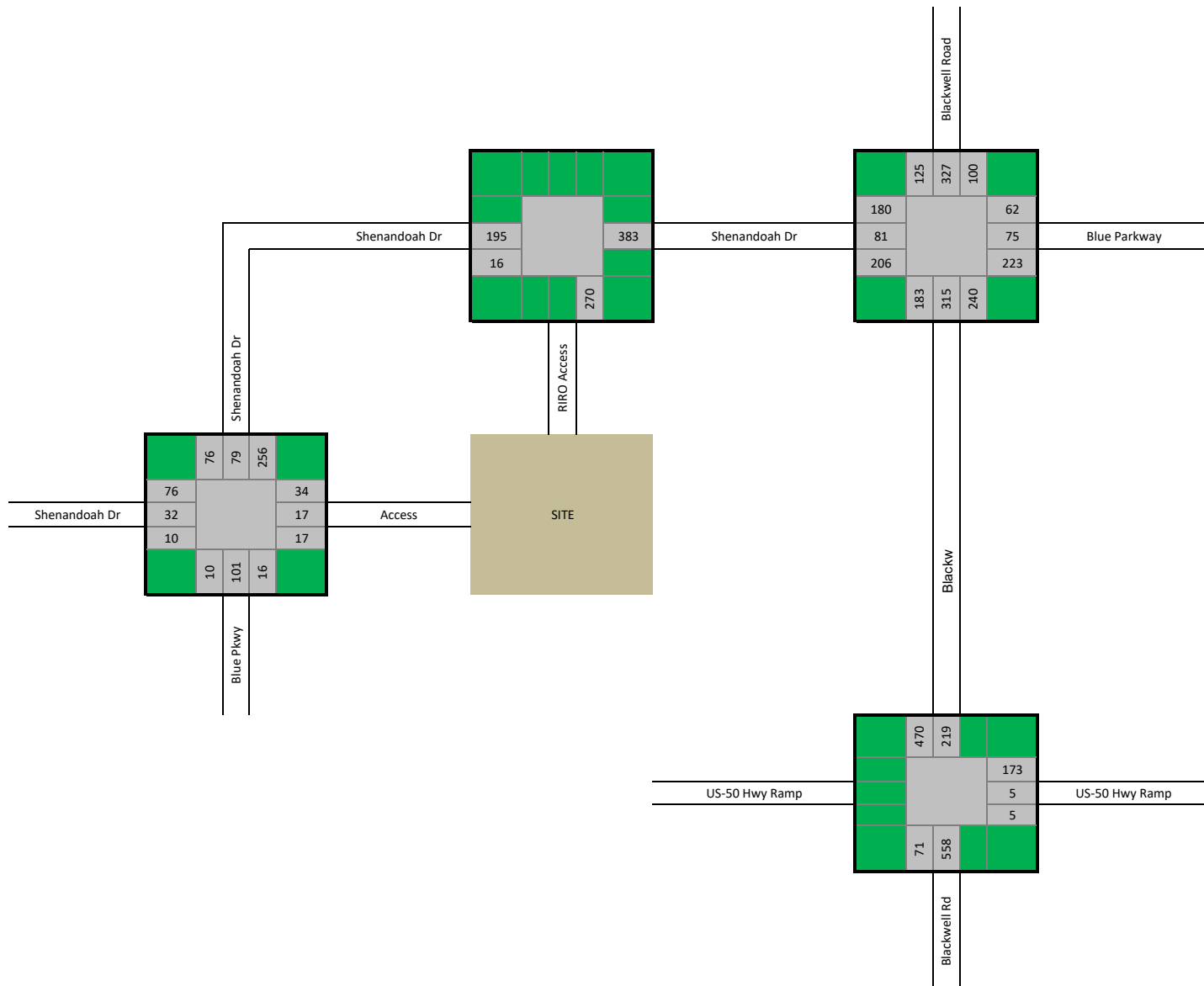
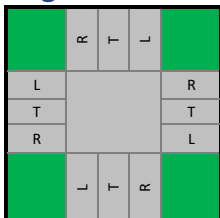
PM - Total Trips Phase 2

Legend



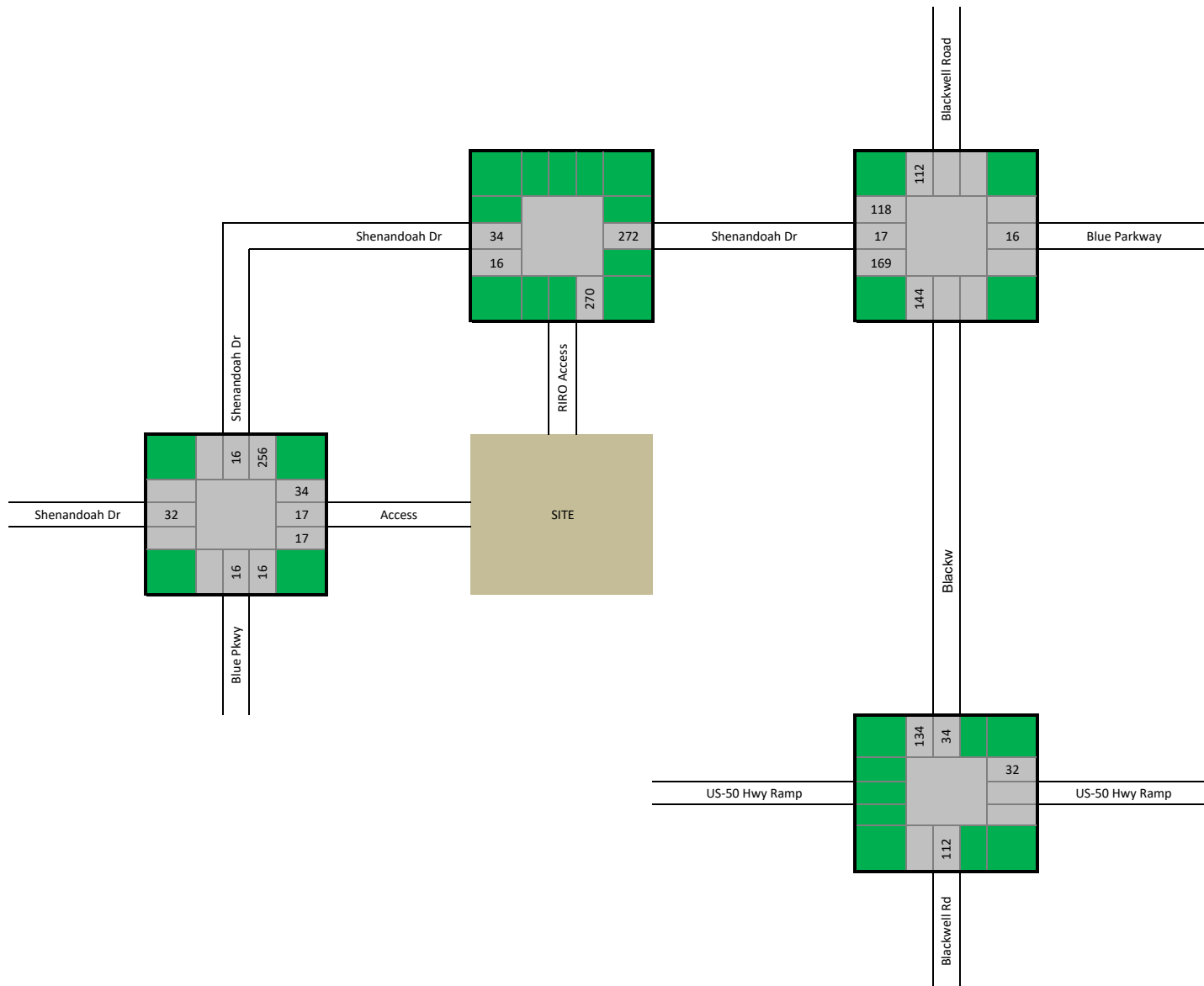
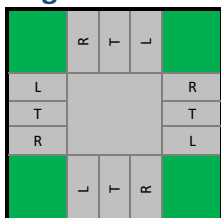
PM - Existing Counts plus Site Trips Phase 1 & 2

Legend



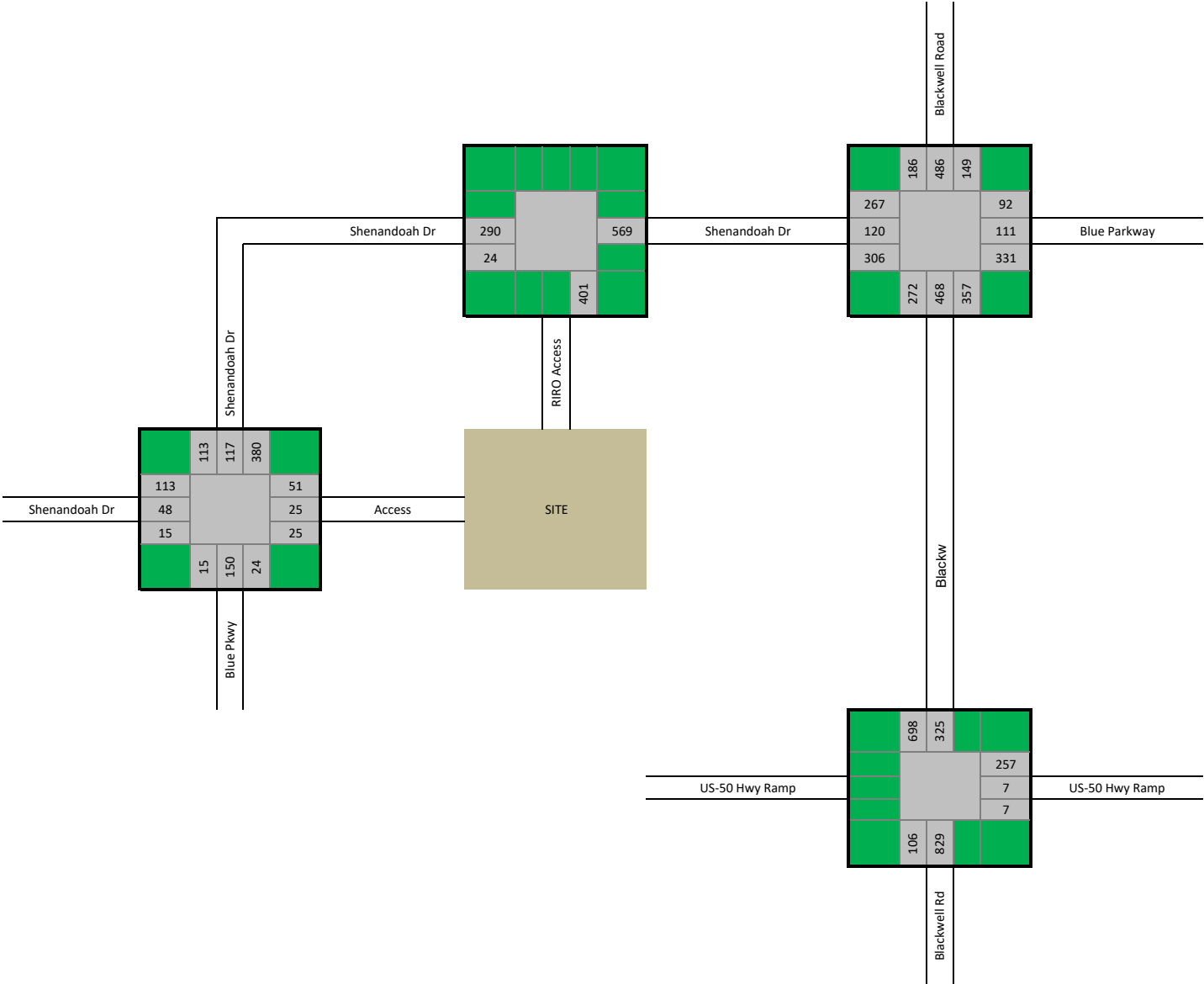
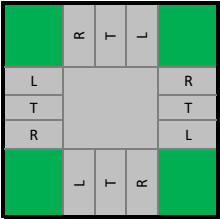
PM - Total Trips Phase 2

Legend



PM - Future Volumes

Legend



MOVEMENT SUMMARY

 Site: 101 [AM Existing - Blackwell Rd and Shenandoah Dr/Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	51	3.0	51	3.0	0.135	3.8	LOS A	0.5	13.7	0.17	0.07	0.17	33.0
8	T1	All MCs	123	3.0	123	3.0	0.135	3.8	LOS A	0.5	13.7	0.17	0.07	0.17	33.7
18	R2	All MCs	100	3.0	100	3.0	0.081	3.6	LOS A	0.3	8.1	0.17	0.07	0.17	34.2
Approach			274	3.0	274	3.0	0.135	3.7	LOS A	0.5	13.7	0.17	0.07	0.17	33.8
East: Blue Pkwy															
1	L2	All MCs	77	3.0	77	3.0	0.068	3.7	LOS A	0.2	6.3	0.31	0.18	0.31	31.4
6	T1	All MCs	10	3.0	10	3.0	0.022	3.6	LOS A	0.1	2.0	0.31	0.17	0.31	34.6
16	R2	All MCs	13	3.0	13	3.0	0.022	3.6	LOS A	0.1	2.0	0.31	0.17	0.31	34.3
Approach			100	3.0	100	3.0	0.068	3.7	LOS A	0.2	6.3	0.31	0.18	0.31	32.0
North: Blackwell Rd															
7	L2	All MCs	15	3.0	15	3.0	0.225	5.1	LOS A	1.0	25.4	0.30	0.15	0.30	33.0
4	T1	All MCs	457	3.0	457	3.0	0.225	5.0	LOS A	1.0	25.4	0.29	0.15	0.29	33.8
14	R2	All MCs	59	3.0	59	3.0	0.225	4.9	LOS A	1.0	24.7	0.28	0.14	0.28	33.6
Approach			532	3.0	532	3.0	0.225	5.0	LOS A	1.0	25.4	0.29	0.15	0.29	33.8
West: Shenandoah Dr															
5	L2	All MCs	40	3.0	40	3.0	0.125	5.6	LOS A	0.4	11.3	0.50	0.41	0.50	32.0
2	T1	All MCs	13	3.0	13	3.0	0.125	5.6	LOS A	0.4	11.3	0.50	0.41	0.50	32.6
12	R2	All MCs	51	3.0	51	3.0	0.125	5.6	LOS A	0.4	11.3	0.50	0.41	0.50	32.4
Approach			104	3.0	104	3.0	0.125	5.6	LOS A	0.4	11.3	0.50	0.41	0.50	32.3
All Vehicles			1010	3.0	1010	3.0	0.225	4.6	LOS A	1.0	25.4	0.28	0.16	0.28	33.4

MOVEMENT SUMMARY

 Site: 101 [AM Existing - Blackwell Rd and US-50 Highway Ramps (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	124	3.0	124	3.0	0.143	3.5	LOS A	0.0	0.0	0.00	0.00	0.00	33.9
8	T1	All MCs	261	3.0	261	3.0	0.143	3.4	LOS A	0.0	0.0	0.00	0.00	0.00	36.1
Approach			385	3.0	385	3.0	0.143	3.4	LOS A	0.0	0.0	0.00	0.00	0.00	35.4
East: WB US-50 Highway															
1	L2	All MCs	7	3.0	7	3.0	0.015	4.1	LOS A	0.1	1.3	0.42	0.27	0.42	32.4
6	T1	All MCs	7	3.0	7	3.0	0.015	4.1	LOS A	0.1	1.3	0.42	0.27	0.42	33.0
16	R2	All MCs	88	3.0	88	3.0	0.091	4.5	LOS A	0.3	8.3	0.42	0.31	0.42	33.7
Approach			101	3.0	101	3.0	0.091	4.5	LOS A	0.3	8.3	0.42	0.30	0.42	33.6
North: Blackwell Road															
4	T1	All MCs	76	3.0	76	3.0	0.200	4.9	LOS A	0.9	22.0	0.29	0.15	0.29	33.9
14	R2	All MCs	398	3.0	398	3.0	0.200	4.7	LOS A	0.9	22.0	0.28	0.14	0.28	33.6
Approach			474	3.0	474	3.0	0.200	4.8	LOS A	0.9	22.0	0.28	0.14	0.28	33.7
All Vehicles			960	3.0	960	3.0	0.200	4.2	LOS A	0.9	22.0	0.18	0.10	0.18	34.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 101 [AM Existing - Shenandoah Dr and Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blue Parkway															
3	L2	All MCs	13	3.0	13	3.0	0.039	3.1	LOS A	0.2	4.2	0.17	0.06	0.17	33.1
8	T1	All MCs	37	3.0	37	3.0	0.039	3.1	LOS A	0.2	4.2	0.17	0.06	0.17	33.8
Approach			49	3.0	49	3.0	0.039	3.1	LOS A	0.2	4.2	0.17	0.06	0.17	33.6
North: Shenandoah Dr															
4	T1	All MCs	52	3.0	52	3.0	0.089	3.3	LOS A	0.4	10.1	0.07	0.01	0.07	34.3
14	R2	All MCs	65	3.0	65	3.0	0.089	3.3	LOS A	0.4	10.1	0.07	0.01	0.07	34.1
Approach			117	3.0	117	3.0	0.089	3.3	LOS A	0.4	10.1	0.07	0.01	0.07	34.2
West: Shenandoah Dr															
5	L2	All MCs	58	3.0	58	3.0	0.056	3.2	LOS A	0.2	6.1	0.16	0.06	0.16	31.9
12	R2	All MCs	14	3.0	14	3.0	0.056	3.2	LOS A	0.2	6.1	0.16	0.06	0.16	32.3
Approach			71	3.0	71	3.0	0.056	3.2	LOS A	0.2	6.1	0.16	0.06	0.16	32.0
All Vehicles			238	3.0	238	3.0	0.089	3.2	LOS A	0.4	10.1	0.12	0.04	0.12	33.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 101 [PM Existing - Blackwell Rd and Shenandoah Dr/Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	45	3.0	45	3.0	0.340	6.1	LOS A	1.7	42.8	0.33	0.17	0.33	32.4
8	T1	All MCs	366	3.0	366	3.0	0.340	6.1	LOS A	1.7	42.8	0.33	0.17	0.33	33.1
18	R2	All MCs	74	3.0	74	3.0	0.065	3.7	LOS A	0.2	6.3	0.26	0.13	0.26	34.2
Approach			486	3.0	486	3.0	0.340	5.7	LOS A	1.7	42.8	0.32	0.16	0.32	33.2
East: Blue Pkwy															
1	L2	All MCs	152	3.0	152	3.0	0.172	5.8	LOS A	0.6	16.3	0.49	0.39	0.49	30.6
6	T1	All MCs	43	3.0	43	3.0	0.089	5.3	LOS A	0.3	8.1	0.49	0.39	0.49	33.7
16	R2	All MCs	29	3.0	29	3.0	0.089	5.3	LOS A	0.3	8.1	0.49	0.39	0.49	33.4
Approach			224	3.0	224	3.0	0.172	5.6	LOS A	0.6	16.3	0.49	0.39	0.49	31.5
North: Blackwell Rd															
7	L2	All MCs	44	3.0	44	3.0	0.189	5.2	LOS A	0.8	19.9	0.38	0.24	0.38	32.6
4	T1	All MCs	348	3.0	348	3.0	0.189	5.0	LOS A	0.8	19.9	0.37	0.23	0.37	33.6
14	R2	All MCs	14	3.0	14	3.0	0.189	4.9	LOS A	0.8	19.4	0.36	0.22	0.36	33.6
Approach			405	3.0	405	3.0	0.189	5.1	LOS A	0.8	19.9	0.37	0.23	0.37	33.5
West: Shenandoah Dr															
5	L2	All MCs	75	3.0	75	3.0	0.172	6.0	LOS A	0.6	16.0	0.52	0.42	0.52	31.5
2	T1	All MCs	24	3.0	24	3.0	0.172	6.0	LOS A	0.6	16.0	0.52	0.42	0.52	32.1
12	R2	All MCs	45	3.0	45	3.0	0.172	6.0	LOS A	0.6	16.0	0.52	0.42	0.52	31.9
Approach			143	3.0	143	3.0	0.172	6.0	LOS A	0.6	16.0	0.52	0.42	0.52	31.7
All Vehicles			1259	3.0	1259	3.0	0.340	5.5	LOS A	1.7	42.8	0.39	0.26	0.39	32.8

MOVEMENT SUMMARY

 Site: 101 [PM Existing - Blackwell Rd and US-50 Highway Ramps (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site

Site Category: (None)

Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	75	3.0	75	3.0	0.172	3.6	LOS A	0.0	0.0	0.00	0.00	0.00	34.9
8	T1	All MCs	389	3.0	389	3.0	0.172	3.5	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
Approach			464	3.0	464	3.0	0.172	3.5	LOS A	0.0	0.0	0.00	0.00	0.00	36.0
East: WB US-50 Highway															
1	L2	All MCs	6	3.0	6	3.0	0.014	4.5	LOS A	0.0	1.2	0.45	0.31	0.45	32.2
6	T1	All MCs	6	3.0	6	3.0	0.014	4.5	LOS A	0.0	1.2	0.45	0.31	0.45	32.9
16	R2	All MCs	48	3.0	48	3.0	0.054	4.5	LOS A	0.2	4.7	0.44	0.35	0.44	33.7
Approach			60	3.0	60	3.0	0.054	4.5	LOS A	0.2	4.7	0.45	0.34	0.45	33.5
North: Blackwell Road															
4	T1	All MCs	131	3.0	131	3.0	0.177	4.4	LOS A	0.8	19.3	0.22	0.09	0.22	34.2
14	R2	All MCs	308	3.0	308	3.0	0.177	4.3	LOS A	0.8	19.3	0.21	0.09	0.21	33.9
Approach			439	3.0	439	3.0	0.177	4.3	LOS A	0.8	19.3	0.21	0.09	0.21	33.9
All Vehicles			963	3.0	963	3.0	0.177	4.0	LOS A	0.8	19.3	0.13	0.06	0.13	34.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 101 [PM Existing - Shenandoah Dr and Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blue Parkway															
3	L2	All MCs	13	3.0	13	3.0	0.074	3.5	LOS A	0.3	8.2	0.20	0.08	0.20	33.2
8	T1	All MCs	79	3.0	79	3.0	0.074	3.5	LOS A	0.3	8.2	0.20	0.08	0.20	33.9
Approach			91	3.0	91	3.0	0.074	3.5	LOS A	0.3	8.2	0.20	0.08	0.20	33.8
North: Shenandoah Dr															
4	T1	All MCs	58	3.0	58	3.0	0.099	3.3	LOS A	0.4	11.5	0.07	0.01	0.07	34.3
14	R2	All MCs	74	3.0	74	3.0	0.099	3.3	LOS A	0.4	11.5	0.07	0.01	0.07	34.0
Approach			131	3.0	131	3.0	0.099	3.3	LOS A	0.4	11.5	0.07	0.01	0.07	34.1
West: Shenandoah Dr															
5	L2	All MCs	76	3.0	76	3.0	0.071	3.4	LOS A	0.3	7.9	0.17	0.06	0.17	31.8
12	R2	All MCs	14	3.0	14	3.0	0.071	3.4	LOS A	0.3	7.9	0.17	0.06	0.17	32.1
Approach			90	3.0	90	3.0	0.071	3.4	LOS A	0.3	7.9	0.17	0.06	0.17	31.8
All Vehicles			313	3.0	313	3.0	0.099	3.4	LOS A	0.4	11.5	0.14	0.05	0.14	33.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 101 [AM Existing plus Site 2 - Blackwell Rd and Shenandoah Dr/Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	261	3.0	261	3.0	0.488	8.9	LOS A	2.7	70.0	0.54	0.36	0.55	30.4
8	T1	All MCs	258	3.0	258	3.0	0.488	8.9	LOS A	2.7	70.0	0.54	0.36	0.55	30.9
18	R2	All MCs	234	3.0	234	3.0	0.235	5.9	LOS A	1.0	25.4	0.43	0.29	0.43	33.1
Approach			753	3.0	753	3.0	0.488	8.0	LOS A	2.7	70.0	0.51	0.34	0.52	31.3
East: Blue Pkwy															
1	L2	All MCs	288	3.0	288	3.0	0.392	9.9	LOS A	1.8	46.8	0.65	0.62	0.80	29.0
6	T1	All MCs	88	3.0	88	3.0	0.257	8.5	LOS A	1.0	24.8	0.61	0.55	0.61	32.2
16	R2	All MCs	84	3.0	84	3.0	0.257	8.5	LOS A	1.0	24.8	0.61	0.55	0.61	31.9
Approach			461	3.0	461	3.0	0.392	9.4	LOS A	1.8	46.8	0.63	0.60	0.73	30.0
North: Blackwell Rd															
7	L2	All MCs	57	3.0	57	3.0	0.480	12.1	LOS B	2.8	70.5	0.70	0.71	0.99	29.8
4	T1	All MCs	457	3.0	457	3.0	0.480	11.8	LOS B	2.8	70.5	0.69	0.70	0.98	30.6
14	R2	All MCs	190	3.0	190	3.0	0.480	11.3	LOS B	2.8	70.5	0.68	0.69	0.96	30.7
Approach			704	3.0	704	3.0	0.480	11.7	LOS B	2.8	70.5	0.69	0.70	0.97	30.5
West: Shenandoah Dr															
5	L2	All MCs	161	3.0	161	3.0	0.759	24.1	LOS C	6.8	174.5	0.87	1.11	1.81	25.5
2	T1	All MCs	65	3.0	65	3.0	0.759	24.1	LOS C	6.8	174.5	0.87	1.11	1.81	25.9
12	R2	All MCs	271	3.0	271	3.0	0.759	24.1	LOS C	6.8	174.5	0.87	1.11	1.81	25.7
Approach			497	3.0	497	3.0	0.759	24.1	LOS C	6.8	174.5	0.87	1.11	1.81	25.7
All Vehicles			2415	3.0	2415	3.0	0.759	12.6	LOS B	6.8	174.5	0.66	0.65	0.96	29.5

MOVEMENT SUMMARY

 Site: 101 [AM Existing plus Site 2 - Blackwell Rd and US-50 Highway Ramps (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	124	3.0	124	3.0	0.232	3.9	LOS A	0.0	0.0	0.00	0.00	0.00	34.6
8	T1	All MCs	501	3.0	501	3.0	0.232	3.8	LOS A	0.0	0.0	0.00	0.00	0.00	36.1
Approach			626	3.0	626	3.0	0.232	3.8	LOS A	0.0	0.0	0.00	0.00	0.00	35.8
East: WB US-50 Highway															
1	L2	All MCs	7	3.0	7	3.0	0.019	5.3	LOS A	0.1	1.6	0.52	0.41	0.52	31.9
6	T1	All MCs	7	3.0	7	3.0	0.019	5.3	LOS A	0.1	1.6	0.52	0.41	0.52	32.5
16	R2	All MCs	191	3.0	191	3.0	0.246	7.4	LOS A	0.9	23.6	0.57	0.49	0.57	32.3
Approach			204	3.0	204	3.0	0.246	7.2	LOS A	0.9	23.6	0.57	0.49	0.57	32.3
North: Blackwell Road															
4	T1	All MCs	164	3.0	164	3.0	0.354	6.5	LOS A	1.8	46.6	0.35	0.18	0.35	33.1
14	R2	All MCs	672	3.0	672	3.0	0.354	6.3	LOS A	1.8	46.6	0.34	0.17	0.34	32.8
Approach			837	3.0	837	3.0	0.354	6.4	LOS A	1.8	46.6	0.34	0.17	0.34	32.9
All Vehicles			1667	3.0	1667	3.0	0.354	5.5	LOS A	1.8	46.6	0.24	0.15	0.24	33.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 101 [AM Existing plus Site 2 - Shenandoah Dr and Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blue Parkway															
3	L2	All MCs	13	3.0	13	3.0	0.161	6.1	LOS A	0.7	17.1	0.55	0.43	0.55	32.1
8	T1	All MCs	73	3.0	73	3.0	0.161	6.1	LOS A	0.7	17.1	0.55	0.43	0.55	32.7
18	R2	All MCs	44	3.0	44	3.0	0.161	6.1	LOS A	0.7	17.1	0.55	0.43	0.55	32.4
Approach			130	3.0	130	3.0	0.161	6.1	LOS A	0.7	17.1	0.55	0.43	0.55	32.5
East: Access															
1	L2	All MCs	16	3.0	16	3.0	0.059	3.7	LOS A	0.2	6.3	0.31	0.16	0.31	32.9
6	T1	All MCs	16	3.0	16	3.0	0.059	3.7	LOS A	0.2	6.3	0.31	0.16	0.31	33.5
16	R2	All MCs	34	3.0	34	3.0	0.059	3.7	LOS A	0.2	6.3	0.31	0.16	0.31	33.3
Approach			66	3.0	66	3.0	0.059	3.7	LOS A	0.2	6.3	0.31	0.16	0.31	33.2
North: Shenandoah Dr															
7	L2	All MCs	344	3.0	344	3.0	0.417	6.5	LOS A	2.8	71.8	0.23	0.08	0.23	30.8
4	T1	All MCs	93	3.0	93	3.0	0.417	6.5	LOS A	2.8	71.8	0.23	0.08	0.23	31.4
14	R2	All MCs	96	3.0	96	3.0	0.417	6.5	LOS A	2.8	71.8	0.23	0.08	0.23	31.1
Approach			533	3.0	533	3.0	0.417	6.5	LOS A	2.8	71.8	0.23	0.08	0.23	31.0
West: Shenandoah Dr															
5	L2	All MCs	75	3.0	75	3.0	0.167	6.1	LOS A	0.7	17.8	0.54	0.42	0.54	31.2
2	T1	All MCs	48	3.0	48	3.0	0.167	6.1	LOS A	0.7	17.8	0.54	0.42	0.54	31.7
12	R2	All MCs	14	3.0	14	3.0	0.167	6.1	LOS A	0.7	17.8	0.54	0.42	0.54	31.5
Approach			137	3.0	137	3.0	0.167	6.1	LOS A	0.7	17.8	0.54	0.42	0.54	31.4
All Vehicles			867	3.0	867	3.0	0.417	6.2	LOS A	2.8	71.8	0.34	0.19	0.34	31.4

MOVEMENT SUMMARY

 Site: 101 [PM Existing plus Site 2 - Blackwell Rd and Shenandoah Dr/Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	213	3.0	213	3.0	0.605	12.2	LOS B	5.6	143.1	0.69	0.66	1.06	29.4
8	T1	All MCs	366	3.0	366	3.0	0.605	12.2	LOS B	5.6	143.1	0.69	0.66	1.06	29.9
18	R2	All MCs	279	3.0	279	3.0	0.314	7.4	LOS A	1.4	34.9	0.53	0.40	0.53	32.3
Approach			858	3.0	858	3.0	0.605	10.6	LOS B	5.6	143.1	0.64	0.58	0.89	30.5
East: Blue Pkwy															
1	L2	All MCs	414	3.0	414	3.0	0.618	16.6	LOS C	4.1	105.0	0.78	0.89	1.30	26.8
6	T1	All MCs	129	3.0	129	3.0	0.389	11.5	LOS B	1.7	44.6	0.68	0.70	0.86	30.8
16	R2	All MCs	107	3.0	107	3.0	0.389	11.5	LOS B	1.7	44.6	0.68	0.70	0.86	30.6
Approach			650	3.0	650	3.0	0.618	14.7	LOS B	4.1	105.0	0.74	0.82	1.14	28.1
North: Blackwell Rd															
7	L2	All MCs	106	3.0	106	3.0	0.449	12.6	LOS B	2.3	57.9	0.71	0.74	0.97	29.2
4	T1	All MCs	348	3.0	348	3.0	0.449	12.1	LOS B	2.3	57.9	0.70	0.73	0.96	30.2
14	R2	All MCs	133	3.0	133	3.0	0.449	11.7	LOS B	2.3	57.8	0.69	0.71	0.94	30.5
Approach			587	3.0	587	3.0	0.449	12.1	LOS B	2.3	57.9	0.70	0.73	0.96	30.1
West: Shenandoah Dr															
5	L2	All MCs	200	3.0	200	3.0	0.843	32.9	LOS D	9.0	229.7	0.92	1.31	2.30	23.2
2	T1	All MCs	90	3.0	90	3.0	0.843	32.9	LOS D	9.0	229.7	0.92	1.31	2.30	23.5
12	R2	All MCs	229	3.0	229	3.0	0.843	32.9	LOS D	9.0	229.7	0.92	1.31	2.30	23.4
Approach			519	3.0	519	3.0	0.843	32.9	LOS D	9.0	229.7	0.92	1.31	2.30	23.3
All Vehicles			2614	3.0	2614	3.0	0.843	16.4	LOS C	9.0	229.7	0.73	0.81	1.25	28.1

MOVEMENT SUMMARY

 Site: 101 [PM Existing plus Site 2 - Blackwell Rd and US-50 Highway Ramps (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	75	3.0	75	3.0	0.246	4.0	LOS A	0.0	0.0	0.00	0.00	0.00	35.1
8	T1	All MCs	587	3.0	587	3.0	0.246	3.9	LOS A	0.0	0.0	0.00	0.00	0.00	36.3
Approach			662	3.0	662	3.0	0.246	3.9	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
East: WB US-50 Highway															
1	L2	All MCs	6	3.0	6	3.0	0.017	5.4	LOS A	0.1	1.5	0.53	0.42	0.53	31.8
6	T1	All MCs	6	3.0	6	3.0	0.017	5.4	LOS A	0.1	1.5	0.53	0.42	0.53	32.4
16	R2	All MCs	204	3.0	204	3.0	0.272	7.9	LOS A	1.0	26.2	0.59	0.52	0.59	32.1
Approach			215	3.0	215	3.0	0.272	7.8	LOS A	1.0	26.2	0.59	0.51	0.59	32.1
North: Blackwell Road															
4	T1	All MCs	249	3.0	249	3.0	0.315	5.8	LOS A	1.6	40.6	0.26	0.11	0.26	33.5
14	R2	All MCs	534	3.0	534	3.0	0.315	5.6	LOS A	1.6	40.6	0.25	0.11	0.25	33.2
Approach			783	3.0	783	3.0	0.315	5.7	LOS A	1.6	40.6	0.25	0.11	0.25	33.3
All Vehicles			1660	3.0	1660	3.0	0.315	5.2	LOS A	1.6	40.6	0.20	0.12	0.20	34.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 101 [PM Existing plus Site 2 - Shenandoah Dr and Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blue Parkway															
3	L2	All MCs	13	3.0	13	3.0	0.197	6.5	LOS A	0.8	21.4	0.56	0.44	0.56	31.9
8	T1	All MCs	126	3.0	126	3.0	0.197	6.5	LOS A	0.8	21.4	0.56	0.44	0.56	32.5
18	R2	All MCs	20	3.0	20	3.0	0.197	6.5	LOS A	0.8	21.4	0.56	0.44	0.56	32.3
Approach			159	3.0	159	3.0	0.197	6.5	LOS A	0.8	21.4	0.56	0.44	0.56	32.4
East: Access															
1	L2	All MCs	18	3.0	18	3.0	0.072	4.1	LOS A	0.3	7.6	0.38	0.24	0.38	32.7
6	T1	All MCs	18	3.0	18	3.0	0.072	4.1	LOS A	0.3	7.6	0.38	0.24	0.38	33.3
16	R2	All MCs	37	3.0	37	3.0	0.072	4.1	LOS A	0.3	7.6	0.38	0.24	0.38	33.0
Approach			74	3.0	74	3.0	0.072	4.1	LOS A	0.3	7.6	0.38	0.24	0.38	33.0
North: Shenandoah Dr															
7	L2	All MCs	320	3.0	320	3.0	0.404	6.4	LOS A	2.6	67.8	0.24	0.08	0.24	30.9
4	T1	All MCs	99	3.0	99	3.0	0.404	6.4	LOS A	2.6	67.8	0.24	0.08	0.24	31.4
14	R2	All MCs	95	3.0	95	3.0	0.404	6.4	LOS A	2.6	67.8	0.24	0.08	0.24	31.2
Approach			514	3.0	514	3.0	0.404	6.4	LOS A	2.6	67.8	0.24	0.08	0.24	31.1
West: Shenandoah Dr															
5	L2	All MCs	107	3.0	107	3.0	0.199	6.3	LOS A	0.9	21.9	0.55	0.42	0.55	30.9
2	T1	All MCs	45	3.0	45	3.0	0.199	6.3	LOS A	0.9	21.9	0.55	0.42	0.55	31.4
12	R2	All MCs	14	3.0	14	3.0	0.199	6.3	LOS A	0.9	21.9	0.55	0.42	0.55	31.2
Approach			166	3.0	166	3.0	0.199	6.3	LOS A	0.9	21.9	0.55	0.42	0.55	31.1
All Vehicles			913	3.0	913	3.0	0.404	6.2	LOS A	2.6	67.8	0.36	0.22	0.36	31.4

MOVEMENT SUMMARY

 Site: 101 [AM Future - Blackwell Rd and US-50 Highway Ramps (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	185	3.0	185	3.0	0.345	4.5	LOS A	0.0	0.0	0.00	0.00	0.00	34.6
8	T1	All MCs	745	3.0	745	3.0	0.345	4.4	LOS A	0.0	0.0	0.00	0.00	0.00	36.1
Approach			930	3.0	930	3.0	0.345	4.4	LOS A	0.0	0.0	0.00	0.00	0.00	35.8
East: WB US-50 Highway															
1	L2	All MCs	9	3.0	9	3.0	0.036	7.3	LOS A	0.1	2.9	0.60	0.57	0.60	31.0
6	T1	All MCs	9	3.0	9	3.0	0.036	7.3	LOS A	0.1	2.9	0.60	0.57	0.60	31.6
16	R2	All MCs	284	3.0	284	3.0	0.489	14.3	LOS B	2.4	62.7	0.73	0.83	1.12	29.4
Approach			303	3.0	303	3.0	0.489	13.9	LOS B	2.4	62.7	0.72	0.81	1.09	29.5
North: Blackwell Road															
4	T1	All MCs	244	3.0	244	3.0	0.560	10.1	LOS B	3.6	93.4	0.55	0.33	0.55	31.4
14	R2	All MCs	999	3.0	999	3.0	0.560	9.8	LOS A	3.6	93.4	0.54	0.31	0.54	31.2
Approach			1243	3.0	1243	3.0	0.560	9.9	LOS A	3.6	93.4	0.54	0.32	0.54	31.3
All Vehicles			2475	3.0	2475	3.0	0.560	8.3	LOS A	3.6	93.4	0.36	0.26	0.40	32.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 101 [AM Future - Shenandoah Dr and Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blue Parkway															
3	L2	All MCs	19	3.0	19	3.0	0.306	9.7	LOS A	1.3	33.3	0.68	0.61	0.69	30.5
8	T1	All MCs	109	3.0	109	3.0	0.306	9.7	LOS A	1.3	33.3	0.68	0.61	0.69	31.1
18	R2	All MCs	66	3.0	66	3.0	0.306	9.7	LOS A	1.3	33.3	0.68	0.61	0.69	30.8
Approach			194	3.0	194	3.0	0.306	9.7	LOS A	1.3	33.3	0.68	0.61	0.69	30.9
East: Access															
1	L2	All MCs	24	3.0	24	3.0	0.094	4.3	LOS A	0.4	10.2	0.39	0.24	0.39	32.6
6	T1	All MCs	24	3.0	24	3.0	0.094	4.3	LOS A	0.4	10.2	0.39	0.24	0.39	33.2
16	R2	All MCs	50	3.0	50	3.0	0.094	4.3	LOS A	0.4	10.2	0.39	0.24	0.39	33.0
Approach			98	3.0	98	3.0	0.094	4.3	LOS A	0.4	10.2	0.39	0.24	0.39	32.9
North: Shenandoah Dr															
7	L2	All MCs	511	3.0	511	3.0	0.634	10.1	LOS B	6.3	160.1	0.43	0.17	0.43	29.4
4	T1	All MCs	139	3.0	139	3.0	0.634	10.1	LOS B	6.3	160.1	0.43	0.17	0.43	29.9
14	R2	All MCs	143	3.0	143	3.0	0.634	10.1	LOS B	6.3	160.1	0.43	0.17	0.43	29.7
Approach			792	3.0	792	3.0	0.634	10.1	LOS B	6.3	160.1	0.43	0.17	0.43	29.5
West: Shenandoah Dr															
5	L2	All MCs	112	3.0	112	3.0	0.316	9.6	LOS A	1.4	35.0	0.67	0.61	0.70	29.7
2	T1	All MCs	71	3.0	71	3.0	0.316	9.6	LOS A	1.4	35.0	0.67	0.61	0.70	30.2
12	R2	All MCs	21	3.0	21	3.0	0.316	9.6	LOS A	1.4	35.0	0.67	0.61	0.70	30.0
Approach			204	3.0	204	3.0	0.316	9.6	LOS A	1.4	35.0	0.67	0.61	0.70	29.9
All Vehicles			1288	3.0	1288	3.0	0.634	9.5	LOS A	6.3	160.1	0.50	0.31	0.51	30.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

MOVEMENT SUMMARY

 Site: 101 [AM Future - Blackwell Rd and Shenandoah Dr/Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	388	3.0	388	3.0	0.730	15.3	LOS C	11.6	297.3	0.78	0.77	1.34	28.0
8	T1	All MCs	384	3.0	384	3.0	0.730	15.3	LOS C	11.6	297.3	0.78	0.77	1.34	28.5
18	R2	All MCs	347	3.0	347	3.0	0.351	7.3	LOS A	1.7	42.5	0.49	0.33	0.49	32.4
Approach			1119	3.0	1119	3.0	0.730	12.8	LOS B	11.6	297.3	0.69	0.63	1.07	29.4
East: Blue Pkwy															
1	L2	All MCs	429	3.0	429	3.0	0.730	24.3	LOS C	5.2	133.1	0.84	1.05	1.59	24.6
6	T1	All MCs	132	3.0	132	3.0	0.485	15.4	LOS C	2.3	59.0	0.74	0.82	1.04	29.3
16	R2	All MCs	125	3.0	125	3.0	0.485	15.4	LOS C	2.3	59.0	0.74	0.82	1.04	29.1
Approach			686	3.0	686	3.0	0.730	20.9	LOS C	5.2	133.1	0.81	0.96	1.38	26.1
North: Blackwell Rd															
7	L2	All MCs	85	3.0	85	3.0	0.965	58.3	LOS F	14.1	360.6	0.98	1.71	3.47	18.6
4	T1	All MCs	678	3.0	678	3.0	0.965	57.0	LOS F	14.9	382.5	0.99	1.73	3.50	19.0
14	R2	All MCs	282	3.0	282	3.0	0.965	54.9	LOS F	14.9	382.5	0.99	1.75	3.56	19.3
Approach			1046	3.0	1046	3.0	0.965	56.5	LOS F	14.9	382.5	0.99	1.73	3.52	19.1
West: Shenandoah Dr															
5	L2	All MCs	239	3.0	239	3.0	1.635	315.4	LOS F	94.9	2428.3	1.00	5.18	15.88	6.0
2	T1	All MCs	96	3.0	96	3.0	1.635	315.4	LOS F	94.9	2428.3	1.00	5.18	15.88	6.0
12	R2	All MCs	404	3.0	404	3.0	1.635	315.4	LOS F	94.9	2428.3	1.00	5.18	15.88	6.0
Approach			739	3.0	739	3.0	1.635	315.4	LOS F	94.9	2428.3	1.00	5.18	15.88	6.0
All Vehicles			3589	3.0	3589	3.0	1.635	89.4	LOS F	94.9	2428.3	0.86	1.95	4.89	14.8

MOVEMENT SUMMARY

 Site: 101 [PM Future - Blackwell Rd and US-50 Highway Ramps (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue Dist [Veh. ft]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	112	3.0	112	3.0	0.365	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	35.1
8	T1	All MCs	873	3.0	873	3.0	0.365	4.5	LOS A	0.0	0.0	0.00	0.00	0.00	36.3
Approach			984	3.0	984	3.0	0.365	4.5	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
East: WB US-50 Highway															
1	L2	All MCs	8	3.0	8	3.0	0.033	7.7	LOS A	0.1	2.7	0.61	0.59	0.61	30.9
6	T1	All MCs	8	3.0	8	3.0	0.033	7.7	LOS A	0.1	2.7	0.61	0.59	0.61	31.4
16	R2	All MCs	302	3.0	302	3.0	0.548	16.7	LOS C	2.9	74.8	0.76	0.90	1.26	28.5
Approach			319	3.0	319	3.0	0.548	16.3	LOS C	2.9	74.8	0.75	0.88	1.23	28.6
North: Blackwell Road															
4	T1	All MCs	369	3.0	369	3.0	0.487	8.2	LOS A	3.0	77.8	0.41	0.20	0.41	32.3
14	R2	All MCs	793	3.0	793	3.0	0.487	8.0	LOS A	3.0	77.8	0.39	0.19	0.39	32.1
Approach			1163	3.0	1163	3.0	0.487	8.1	LOS A	3.0	77.8	0.40	0.19	0.40	32.1
All Vehicles			2466	3.0	2466	3.0	0.548	7.7	LOS A	3.0	77.8	0.28	0.21	0.34	33.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

 Site: 101 [PM Future - Shenandoah Dr and Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back [Veh.	Of Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blue Parkway															
3	L2	All MCs	19	3.0	19	3.0	0.377	11.0	LOS B	1.8	46.8	0.71	0.68	0.85	30.0
8	T1	All MCs	188	3.0	188	3.0	0.377	11.0	LOS B	1.8	46.8	0.71	0.68	0.85	30.5
18	R2	All MCs	30	3.0	30	3.0	0.377	11.0	LOS B	1.8	46.8	0.71	0.68	0.85	30.3
Approach			236	3.0	236	3.0	0.377	11.0	LOS B	1.8	46.8	0.71	0.68	0.85	30.5
East: Access															
1	L2	All MCs	27	3.0	27	3.0	0.121	5.1	LOS A	0.5	12.9	0.48	0.35	0.48	32.2
6	T1	All MCs	27	3.0	27	3.0	0.121	5.1	LOS A	0.5	12.9	0.48	0.35	0.48	32.8
16	R2	All MCs	55	3.0	55	3.0	0.121	5.1	LOS A	0.5	12.9	0.48	0.35	0.48	32.6
Approach			110	3.0	110	3.0	0.121	5.1	LOS A	0.5	12.9	0.48	0.35	0.48	32.5
North: Shenandoah Dr															
7	L2	All MCs	475	3.0	475	3.0	0.614	9.8	LOS A	5.7	147.1	0.43	0.17	0.43	29.5
4	T1	All MCs	146	3.0	146	3.0	0.614	9.8	LOS A	5.7	147.1	0.43	0.17	0.43	30.0
14	R2	All MCs	141	3.0	141	3.0	0.614	9.8	LOS A	5.7	147.1	0.43	0.17	0.43	29.8
Approach			763	3.0	763	3.0	0.614	9.8	LOS A	5.7	147.1	0.43	0.17	0.43	29.7
West: Shenandoah Dr															
5	L2	All MCs	159	3.0	159	3.0	0.373	10.4	LOS B	1.8	46.6	0.69	0.65	0.81	29.3
2	T1	All MCs	68	3.0	68	3.0	0.373	10.4	LOS B	1.8	46.6	0.69	0.65	0.81	29.8
12	R2	All MCs	21	3.0	21	3.0	0.373	10.4	LOS B	1.8	46.6	0.69	0.65	0.81	29.6
Approach			248	3.0	248	3.0	0.373	10.4	LOS B	1.8	46.6	0.69	0.65	0.81	29.4
All Vehicles			1356	3.0	1356	3.0	0.614	9.7	LOS A	5.7	147.1	0.53	0.36	0.58	30.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

MOVEMENT SUMMARY

 Site: 101 [PM Future - Blackwell Rd and Shenandoah Dr/Blue Pkwy (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of [Veh.	Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	ft				mph
South: Blackwell Rd															
3	L2	All MCs	264	3.0	264	3.0	0.852	24.6	LOS C	17.8	455.9	1.00	1.25	2.24	25.4
8	T1	All MCs	544	3.0	544	3.0	0.852	24.6	LOS C	17.8	455.9	1.00	1.25	2.24	25.8
18	R2	All MCs	415	3.0	415	3.0	0.471	10.0	LOS A	2.9	74.4	0.62	0.53	0.77	31.2
Approach			1223	3.0	1223	3.0	0.852	19.6	LOS C	17.8	455.9	0.87	1.00	1.74	27.3
East: Blue Pkwy															
1	L2	All MCs	571	3.0	571	3.0	1.026	70.9	LOS F	19.1	488.1	1.00	1.99	4.31	16.6
6	T1	All MCs	191	3.0	191	3.0	0.701	25.7	LOS D	4.3	109.2	0.84	1.01	1.44	25.9
16	R2	All MCs	159	3.0	159	3.0	0.701	25.7	LOS D	4.3	109.2	0.84	1.01	1.44	25.7
Approach			921	3.0	921	3.0	1.026	53.7	LOS F	19.1	488.1	0.94	1.62	3.22	19.1
North: Blackwell Rd															
7	L2	All MCs	159	3.0	159	3.0	0.851	40.5	LOS E	7.4	190.1	0.92	1.29	2.20	21.6
4	T1	All MCs	517	3.0	517	3.0	0.851	38.9	LOS E	7.7	197.3	0.91	1.29	2.21	22.3
14	R2	All MCs	198	3.0	198	3.0	0.851	37.4	LOS E	7.7	197.3	0.91	1.29	2.21	22.7
Approach			873	3.0	873	3.0	0.851	38.9	LOS E	7.7	197.3	0.91	1.29	2.21	22.3
West: Shenandoah Dr															
5	L2	All MCs	322	3.0	322	3.0	1.908	436.0	LOS F	128.8	3296.7	1.00	5.97	18.88	4.6
2	T1	All MCs	145	3.0	145	3.0	1.908	436.0	LOS F	128.8	3296.7	1.00	5.97	18.88	4.6
12	R2	All MCs	369	3.0	369	3.0	1.908	436.0	LOS F	128.8	3296.7	1.00	5.97	18.88	4.6
Approach			835	3.0	835	3.0	1.908	436.0	LOS F	128.8	3296.7	1.00	5.97	18.88	4.6
All Vehicles			3852	3.0	3852	3.0	1.908	122.4	LOS F	128.8	3296.7	0.92	2.29	5.92	12.2

HCM 6th TWSC
4: RIRO Access & Shenandoah Dr

AM Existing Plus Site

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↱			↱		↱
Traffic Vol, veh/h	127	17	0	404	0	247
Future Vol, veh/h	127	17	0	404	0	247
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, %	0	-	-	0	0	-
Peak Hour Factor	77	77	69	69	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	165	22	0	586	0	268
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	176
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	867
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	867
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		11	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	867	-	-	-		
HCM Lane V/C Ratio	0.31	-	-	-		
HCM Control Delay (s)	11	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	1.3	-	-	-		

HCM 6th TWSC
4: RIRO Access & Shenandoah Dr

PM Existing Plus Site

Intersection						
Int Delay, s/veh	3.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	195	16	0	383	0	270
Future Vol, veh/h	195	16	0	383	0	270
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, %	0	-	-	0	0	-
Peak Hour Factor	83	83	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	235	19	0	451	0	293
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	245
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	794
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	794
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		12.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	794	-	-	-		
HCM Lane V/C Ratio	0.37	-	-	-		
HCM Control Delay (s)	12.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	1.7	-	-	-		

HCM 6th TWSC
4: RIRO Access & Shenandoah Dr

AM Future

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱		↱
Traffic Vol, veh/h	189	25	0	600	0	367
Future Vol, veh/h	189	25	0	600	0	367
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, %	0	-	-	0	0	-
Peak Hour Factor	77	77	69	69	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	245	32	0	870	0	399
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	261
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	778
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	778
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		14.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	778	-	-	-		
HCM Lane V/C Ratio	0.513	-	-	-		
HCM Control Delay (s)	14.4	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile Q(veh)	3	-	-	-		

HCM 6th TWSC
4: RIRO Access & Shenandoah Dr

PM Future

Intersection						
Int Delay, s/veh	5.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	290	24	0	569	0	401
Future Vol, veh/h	290	24	0	569	0	401
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, %	0	-	-	0	0	-
Peak Hour Factor	83	83	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	349	29	0	669	0	436
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	364
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	-	-	0	-	0	681
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	681
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		19.2	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	681	-	-	-		
HCM Lane V/C Ratio	0.64	-	-	-		
HCM Control Delay (s)	19.2	-	-	-		
HCM Lane LOS	C	-	-	-		
HCM 95th %tile Q(veh)	4.6	-	-	-		