

SIDRA Analysis Report

Thompsons Road, Clyde Creek and
Casey Fields South PSP

CG130783



Prepared for
Metropolitan Planning Authority

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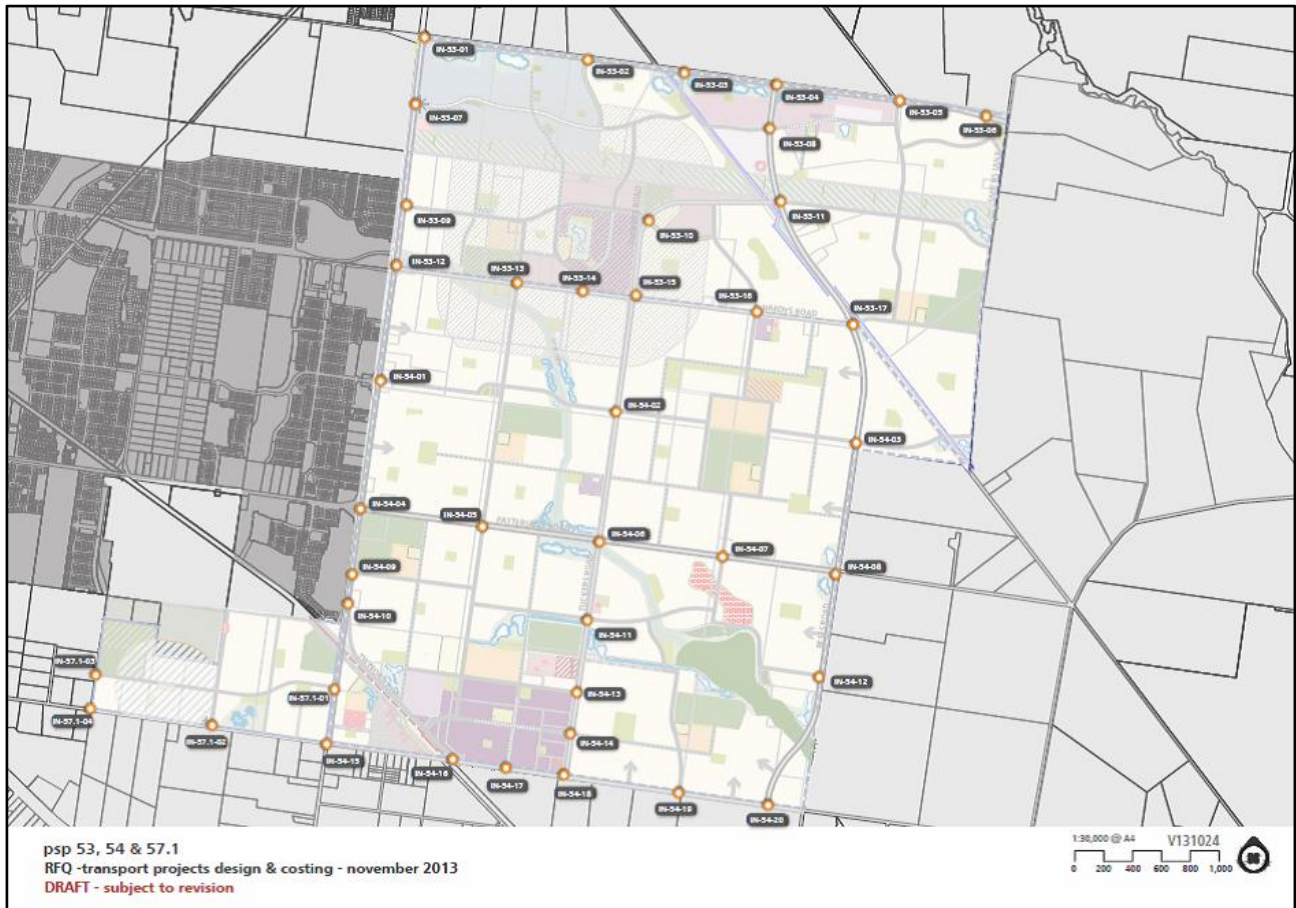
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1 Introduction

Cardno was retained by Metropolitan Planning Authority to undertake analysis of 41 intersections within the Thompsons Road, Clyde Creek and Casey Fields South PSP areas, to inform future intersection design and costing analysis for the purposes of a Developer Contributions Plan.

The three PSP areas, and the intersections analysed, are shown in Figure 1-1

Figure 1-1 Thompsons Road, Clyde Creek and Casey Fields South PSP area



2 Traffic Volumes

2.1 Sub-Regional Modelling

Sub-regional scale transport modelling was undertaken in 2012, based on the road network included in the Growth Corridor Plans. More detailed planning for the Precincts has identified the need to modify the road network and update land uses.

As a consequence, the strategic transport modelling of the Precincts was updated by AECOM, with the results provided for review and ultimately input into the SIDRA analysis.

The results include the Ultimate (2046) and Interim (2026) scenarios.

2.2 Modelling Review

A sensibility review of the modelling outputs was undertaken by Cardno. The review considered:

- > Likely generation and distribution of traffic from residential, commercial and school precincts;
- > Sensibility of turning movements and routes taken;
- > Comparison of through traffic volumes to road cross-section;

As a result of the modelling review, several modifications to the modelled traffic volumes were recommended, as detailed in Table 2-1.

Table 2-1 Traffic Volume Modifications

Intersection	Intersection Leg - Movement	Volume Change
IN-53-01 (PM)	West/East - Through	- 250
IN-53-04 (AM)	South - Through	+ 100
IN-53-04 (PM)	West/East - Through	- 250
	North - Through	- 150
	North - Left	- 100
	South - Through	+ 100
	South - Right	- 250
IN-53-05 (AM)	South - Right	- 100
IN-53-05 (PM)	West - Through	- 100
	South - Right	- 100
IN-53-06 (PM)	West - Right	- 100
IN-53-08 (AM)	South - Through	+ 100
IN-53-08 (PM)	South/North - Through	+ 100
IN-53-11 (AM)	South - Through	+ 100
IN-53-11 (PM)	South/North - Through	+ 100
	North - Right	- 225
IN-53-17 (AM)	South - Right	- 100
	South - Through	+ 100
IN-53-17 (PM)	East - Left	- 100
	South - Right	- 100

Intersection	Intersection Leg - Movement	Volume Change
	South/North - Through	+ 100
IN-54-01 (AM)	East - Right	- 100
	East – Through	+ 100
IN-54-01 (PM)	East – Right	- 100
	East – Through	+ 100
IN-54-04 (PM)	West - Left	- 100
IN-54-09 (AM)	North - Left	+ 135
IN-54-09 (PM)	East - Right	+ 90
IN-54-13 (AM/PM)	Adopted same volumes as IN-54-14 for all movements	
IN-54-17 (AM)	North - Left	+ 100
	East - Right	+ 100
IN-54-17 (PM)	North - Left	+ 100
	East - Right	+ 100
IN-54-20 (AM)	West - Right	+ 50
	South - Left	+ 80
IN-54-20 (PM)	West - Right	+ 80
	South - Left	+ 50
IN-57.1-04 (AM)	South - Left	+ 50
	West - Right	+ 50
IN-57.1-04 (PM)	South - Left	+ 50
	West - Right	+ 50

As a result of high turning movement volumes to the majority of intersections there were a high number of modifications to turning lanes from the standard intersections. A summary of the turning lane modifications is provided in Table 2-2.

Table 2-2 Turning Lane Modifications

Intersection	Intersection Leg – Turning Lane	Lane Length
IN-53-01	North - Right (double)	100m/85m
	East - Left	100m
	South - Right (double)	125m/115m
IN-53-02	North - Right	85m
IN-53-04	North - Right (double)	100m/85m
	South - Right (double)	100m/85m
	West - Right (double)	100m/85m
IN-53-05	North - Right	85m
	East - Right	115m
	South - Right	85m
IN-53-06	South - Right	60m
	West - Right	150m
IN-53-09	East - Right	60m
IN-53-11	North - Right (double)	125m/100m
	East - Right	100m

Intersection	Intersection Leg – Turning Lane	Lane Length
	West - Left (through movement adjusted to provide double signalised left turn slip lane)	80m
IN-53-14	North - Right	60m
IN-53-15	West - Right	85m
IN-53-16	West - Right	60m
IN-53-17	North - Right (second lane removed)	85m/0m
	East - Left (included a left turn slip lane)	60m
	South - Right	200m
	West - Right	150m
IN-54-01	East - Right	100m
	South - Right	120m
IN-54-03	East - Right	120m
	South - Right	150m
IN-54-04	North - Right (double)	100m/85m
IN-54-05	South - Right	60m
IN-54-06	North - Right (double)	60m/45m
	South - Left	60m
IN-54-07	North - Right	80m
IN-54-12	East - Right	80m
IN-54-13	South - Left	100m
	West - Right	80m
IN-54-14	West - Right	80m
IN-54-18	East - Right	80m
IN-54-19	South - Right	45m
	West - Right	80m

2.3 Final Traffic Volumes

Following the modelling review, and subsequent liaison and discussion with stakeholders, an approved set of turning movement volumes was adopted for each intersection subject to analysis.

The approved traffic volumes are indicated within the SIDRA analysis results presented in the subsequent analysis.

3 SIDRA Analysis Assumptions and Details

The following assumptions and analysis details have been applied to each intersection, unless otherwise noted in the analysis. Where no commentary is provided, SIDRA defaults are retained.

1. SIDRA Version 5.1.6.2039 has been utilised for the analysis;
2. Performance Measure and Level of Service Method have been set to Degree of Saturation, to better represent the operation of SCATS;
3. Left turn slip lanes have been adopted as follows:
 - a. Arterial/arterial intersections – all approaches
 - b. Arterial/connector intersections in employment/industrial areas – all approaches
 - c. Other arterial/connector intersections – no slip lanes.
4. Where left turn slip lanes have not been provided, separate left turn lanes have been included;
5. Diamond right turn phasing has been adopted for both the main road and side road, with fully controlled turns;
6. Heavy vehicle volumes have been adopted as follows:
 - a. 4% of arterial road through traffic volumes; and
 - b. 2% of local streets (including turns from the arterial road).
7. Pedestrian volumes have been adopted as follows:
 - a. 20 pedestrians per hour for intersections through industrial areas
 - b. 50 pedestrians per hour for intersections through standard residential areas
 - c. 100 pedestrians per hour adjacent to town centres, railway station, etc.
8. Cycle times adopted as:
 - a. 90 to 120 seconds on arterial road intersections; and
 - b. 60 to 90 seconds on local road intersections.
9. Pedestrian movements will operate every cycle during the peak periods.
10. Intergreen times have been assumed at 6 seconds, comprising 4 seconds of yellow and 2 seconds of all-red. Some variation in these times can be expected, although on average, 6 seconds of intergreen is considered appropriate.
11. Pedestrian walk and clearance times based on SCATS standards;
 - a. Walk time (Green) based on the minimum of the walk distance at 1.2m/s plus 2 seconds, or 8 seconds; where the walk distance for a divided carriageway is based on the width of the widest carriageway plus the median width plus 1m;
 - b. Clearance time (Flashing Red) based on the clearance distance at 1.5 m/s; where the clearance distance for a divided carriageway is based on the width of the widest carriageway;
 - c. Where no partially controlled movements are opposed to the pedestrian movement (i.e. the opposed right turn is fully controlled and a left turn slip lane is provided), clearance times may overlap into the intergreen time by 2 seconds (ensuring 4 seconds minimum 'don't walk' time).
12. Pedestrian movements every second cycle have been allowed for;
13. Peak hour traffic volumes based on 55% of the two hour peak calculated by the modelling provided, with no additional peak flow factor;

14. Bus priority typically only impacts on signal operation where a bus is provided with a 'head start' lantern, which delays through traffic on the main road for a few seconds. This only occurs when a bus does not pass through the intersection on the green phase. Given the expected frequency of buses, the uncertainty with regard to bus routes, and the limited impact on intersection operation, bus operations have not been included in the analysis;
15. Bicycles have not been included in the analysis;
16. Adopted speed limits:
 - a. 6-lane arterial – 80km/h
 - b. 4-lane arterial – 60km/h
 - c. Connector – 50km/h
 - d. Town Centre – 40km/h
17. The length of a short lane utilised in the SIDRA analysis is taken as the length of the straight section of the turn lane, plus half of the taper length. This is considered to be the effective turn lane length, as the first half of the taper is considered too narrow to accommodate a full vehicle width.
18. The length of deceleration/turn lanes has been adopted as the minimum of the:
 - a. Minimum required for deceleration (based on the posted speed limit);
 - i. 80km/h = 100m = 85m in SIDRA;
 - ii. 60km/h = 55m = 45m in SIDRA;
 - iii. 50km/h = 40m = 30m in SIDRA; and
 - iv. 40km/h = 25m = 20m in SIDRA.
 - b. Queue length of the turn movement; or
 - c. Length required to achieve suitable intersection operation.
19. Lane widths of 3.5m have been adopted for all lanes;
20. Median widths of 2.5m have been adopted for all approaches;
21. Arrival Type for the through movement on an approach changed to "4 – Favourable", where:
 - a. The approach is an arterial road;
 - b. There is an upstream signalised intersection within 1km of the approach; and
 - c. The approach is in the peak direction of flow.
22. The following targets have been adopted with regard to intersection operation:
 - a. Intersection Degree of Saturation below 0.9
 - b. Maximum 95th percentile queue lengths of less than 250m

4 Analysis Results

The operation of each intersection was analysed using SIDRA Intersection. This computer package, originally developed by the Australian Road Research Board, provides information about the capacity of an intersection in terms of a range of parameters, as described below:

Degree of Saturation (D.O.S.) is the ratio of the volume of traffic observed making a particular movement compared to the maximum capacity for that movement. Various values of degree of saturation and their rating are shown in Table 4-1.

Table 4-1 Rating of Degrees of Saturation

D.O.S.	Rating
Up to 0.6	Excellent
0.6 to 0.7	Very Good
0.7 to 0.8	Good
0.8 to 0.9	Fair
0.9 to 1.0	Poor
Above 1.0	Very Poor

It is considered acceptable for some critical movements in an intersection to operate in the range of 0.9 to 1.0 during the high peak periods, reflecting actual conditions in a significant proportion of suburban signalised intersections.

The **95th Percentile (95thile) Queue** represents the maximum queue length, in metres, that can be expected in 95% of observed queue lengths in the peak hour; and

Average Delay is the delay time, in seconds, which can be expected over all vehicles making a particular movement in the peak hour.

The results of the analysis are attached in Appendix A.

Thompsons Road, Clyde Creek and
Casey Fields South PSP

APPENDIX

A

SIDRA ANALYSIS RESULTS

DRAFT

InterSIDRA

(v1.4) 05-Sep-12

Project No: CG130783

Project Name:

SIDRA File: N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip

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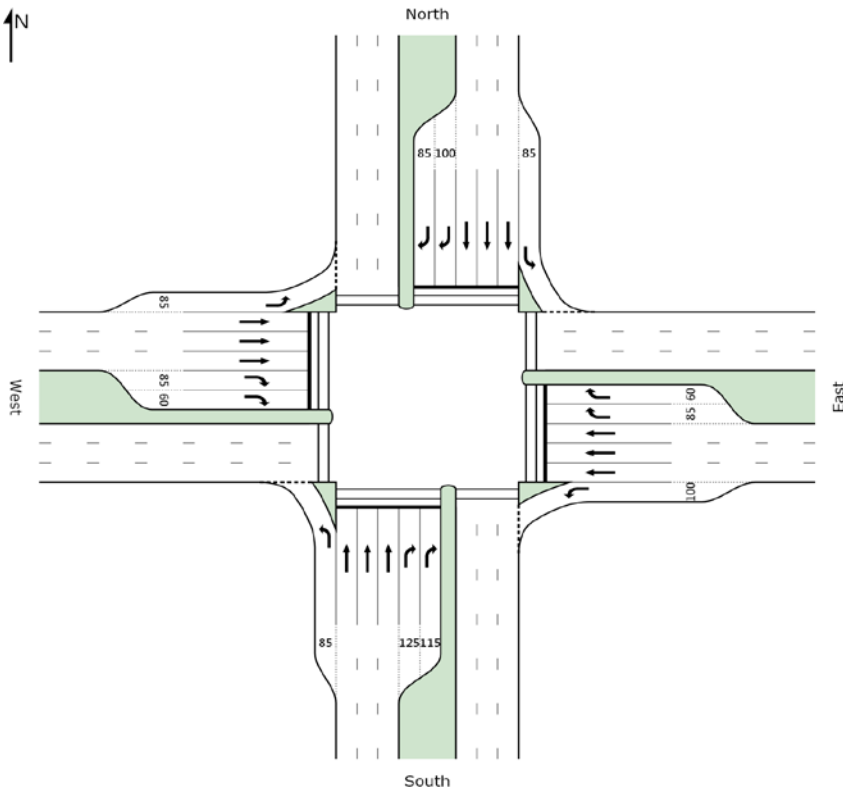
Site Summary

No	Link	Site Name	Intersection Title	Intersection Type	DoS	Cycle	Max Q	Notes
01		IN-53-01 am	IN-53-01 (Type I - 1) ☐ AM Peak - Ultimate Conditions	Signals	0.960	120	241.2	
02		IN-53-01 pm	IN-53-01 (Type I - 1) ☐ PM Peak - Ultimate Conditions	Signals	0.981	120	274.6	
03		IN-53-02 am	IN-53-02 (Type I - 4) ☐ AM Peak - Ultimate Conditions	Signals	0.692	120	172.5	
04		IN-53-02 pm	IN-53-02 (Type I - 4) ☐ PM Peak - Ultimate Conditions	Signals	0.859	120	247.3	
05		IN-53-03 am	IN-53-03 (Type I - 5) ☐ AM Peak - Ultimate Conditions	Signals	0.685	120	151.4	
06		IN-53-03 pm	IN-53-03 (Type I - 5) ☐ PM Peak - Ultimate Conditions	Signals	0.826	120	224.7	
07		IN-53-04 am	IN-53-04 (Type I - 1) ☐ AM Peak - Ultimate Conditions	Signals	0.913	120	250.5	
08		IN-53-04 pm	IN-53-04 (Type I - 1) ☐ PM Peak - Ultimate Conditions	Signals	0.933	120	226.6	
09		IN-53-05 am	IN-53-05 (Type I - 5) ☐ AM Peak - Ultimate Conditions	Signals	0.968	120	263.7	
10		IN-53-05 pm	IN-53-05 (Type I - 5) ☐ AM Peak - Ultimate Conditions	Signals	0.896	120	281.1	
11		IN-53-06 am	IN-53-06 (Type I - 5) ☐ AM Peak - Ultimate Conditions	Signals	0.717	120	184.3	
12		IN-53-06 pm	IN-53-06 (Type I - 5) ☐ PM Peak - Ultimate Conditions	Signals	0.850	120	257	
13		IN-53-07 am	IN-53-07 (Type I - 5) ☐ AM Peak - Ultimate Conditions	Signals	0.740	120	190.5	
14		IN-53-07 pm	IN-53-07 (Type I - 5) ☐ PM Peak - Ultimate Conditions	Signals	0.800	120	213.4	
15		IN-53-08 am	IN-53-08 (Type I - 5) ☐ AM Peak - Ultimate Conditions	Signals	0.819	120	219.7	
16		IN-53-08 pm	IN-53-08 (Type I - 5) ☐ PM Peak - Ultimate Conditions	Signals	0.825	120	252.5	
17		IN-53-09 am	IN-53-09 (Type I - 5a) ☐ AM Peak - Ultimate Conditions	Signals	0.793	120	208.7	
18		IN-53-09 pm	IN-53-09 (Type I - 5a) ☐ PM Peak - Ultimate Conditions	Signals	0.795	120	212.1	
19		IN-53-10 am	IN-53-10 (Type I - 6a) ☐ AM Peak - Ultimate Conditions	Signals	0.521	120	85.1	
20		IN-53-10 pm	IN-53-10 (Type I - 6a) ☐ PM Peak - Ultimate Conditions	Signals	0.694	120	117.1	
21		IN-53-11 am	IN-53-11 (Type I - 1b) ☐ AM Peak - Ultimate Conditions	Signals	0.929	120	250.3	
22		IN-53-11 pm	IN-53-11 (Type I - 1b) ☐ PM Peak - Ultimate Conditions	Signals	0.937	120	208.7	
23		IN-53-12 am	IN-53-12 (Type I - 2) ☐ AM Peak - Ultimate Conditions	Signals	0.849	120	213.6	
24		IN-53-12 pm	IN-53-12 (Type I - 2) ☐ PM Peak - Ultimate Conditions	Signals	0.876	120	268	
25		IN-53-13 am	IN-53-13 (Type I - 6) ☐ AM Peak - Ultimate Conditions	Signals	0.784	120	161.5	
26		IN-53-13 pm	IN-53-13 (Type I - 6) ☐ PM Peak - Ultimate Conditions	Signals	0.632	120	142.4	
27		IN-53-14 am	IN-53-14 (Type I - 6a) ☐ AM Peak - Ultimate Conditions	Signals	0.569	120	51	
28		IN-53-14 pm	IN-53-14 (Type I - 6a) ☐ PM Peak - Ultimate Conditions	Signals	0.865	120	157.2	
29		IN-53-15 am	IN-53-15 (Type I - 3) ☐ AM Peak - Ultimate Conditions	Signals	0.503	120	72.4	
30		IN-53-15 pm	IN-53-15 (Type I - 3) ☐ PM Peak - Ultimate Conditions	Signals	0.732	120	110.7	
31		IN-53-16 am	IN-53-16 (Type I - 6) ☐ AM Peak - Ultimate Conditions	Signals	0.556	120	130.5	
32		IN-53-16 pm	IN-53-16 (Type I - 6) ☐ PM Peak - Ultimate Conditions	Signals	0.800	120	155.5	
33		IN-53-17 am	IN-53-17 (Type I - 1b) ☐ AM Peak - Ultimate Conditions	Signals	0.890	120	173.2	
34		IN-53-17 pm	IN-53-17 (Type I - 1b) ☐ PM Peak - Ultimate Conditions	Signals	0.859	120	189	
35								
36								
37								
38								
39								
40								

IN-53-01 (Type I - 1) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-01 am]



Phase	Grn	Total	%
A	31	37	31%
B1	18	24	20%
C	1	7	6%
D1	26	32	27%
D3	10	16	13%
	0	4	3%
Cycle		120	sec

North

App	R	T	L
74.4	80.8	78	25.6
219.3	104.3	219.3	31.2
0.960	0.895	0.960	0.244

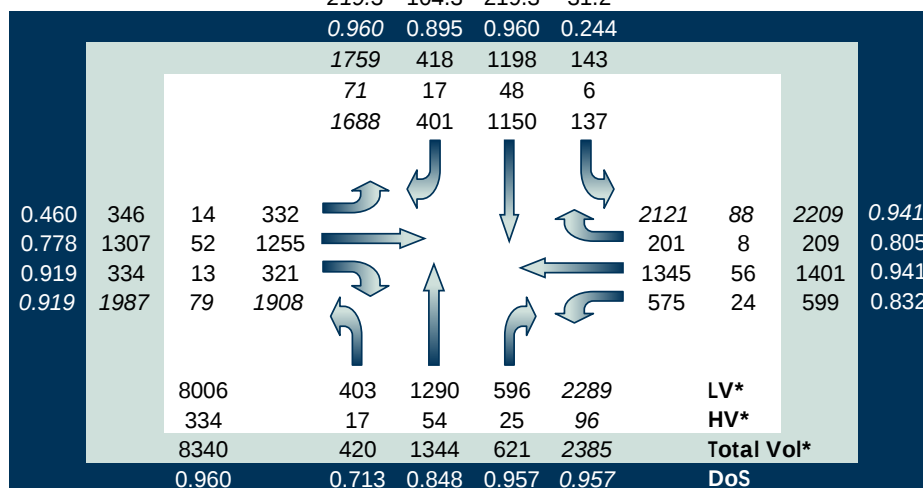
1759	418	1198	143
71	17	48	6
1688	401	1150	137

West

L	20.7	66.7	0.460	346	14	332
T	43.2	166.4	0.778	1307	52	1255
R	87.7	86.7	0.919	334	13	321
App	46.7	166.4	0.919	1987	79	1908

East

2121	88	2209	0.941	241.2	59.7	App
201	8	209	0.805	48.6	77.4	R
1345	56	1401	0.941	241.2	67.8	T
575	24	599	0.832	147.3	34.7	L



8006	403	1290	596	2289	LV*
334	17	54	25	96	HV*
8340	420	1344	621	2385	Total Vol*
0.960	0.713	0.848	0.957	0.957	DoS
241.2	100.5	188.9	183.5	188.9	95th %ile Back of Queue (m)
59.6	31.6	49.6	99.1	59.3	Average Delay (sec)

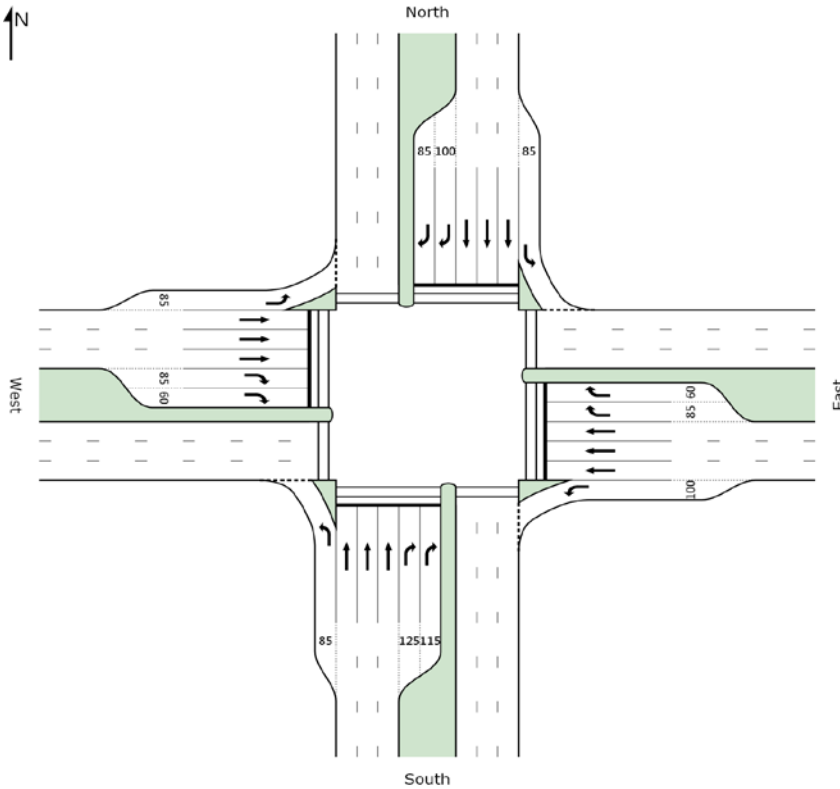
*Output Volumes

South

IN-53-01 (Type I - 1) - PM Peak - Ultimate Conditions

Signals

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Phase	Grn	Total	%
A	29	35	29%
B1	19	25	21%
C	0	3	3%
D1	30	36	30%
D3	8	14	12%
	1	7	6%
Cycle		120	sec

North

App	R	T	L
79.5	86.9	85.3	26.1
274.6	120	274.6	49.8
0.975	0.923	0.975	0.356
2074	455	1404	215

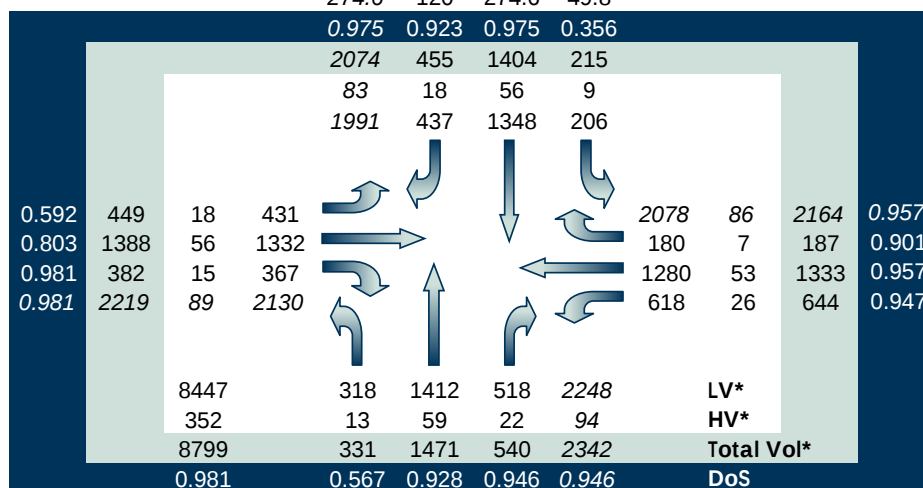
83	18	56	9
1991	437	1348	206

West

L	22.3	89.3	0.592	449	18	431
T	43.5	180.6	0.803	1388	56	1332
R	101.9	119.5	0.981	382	15	367
App	49.3	180.6	0.981	2219	89	2130

East

2078	86	2164	0.957	242.6	65.3	App
180	7	187	0.901	46.8	86.5	R
1280	53	1333	0.957	242.6	75.6	T
618	26	644	0.947	163.2	38	L



Intersection

South

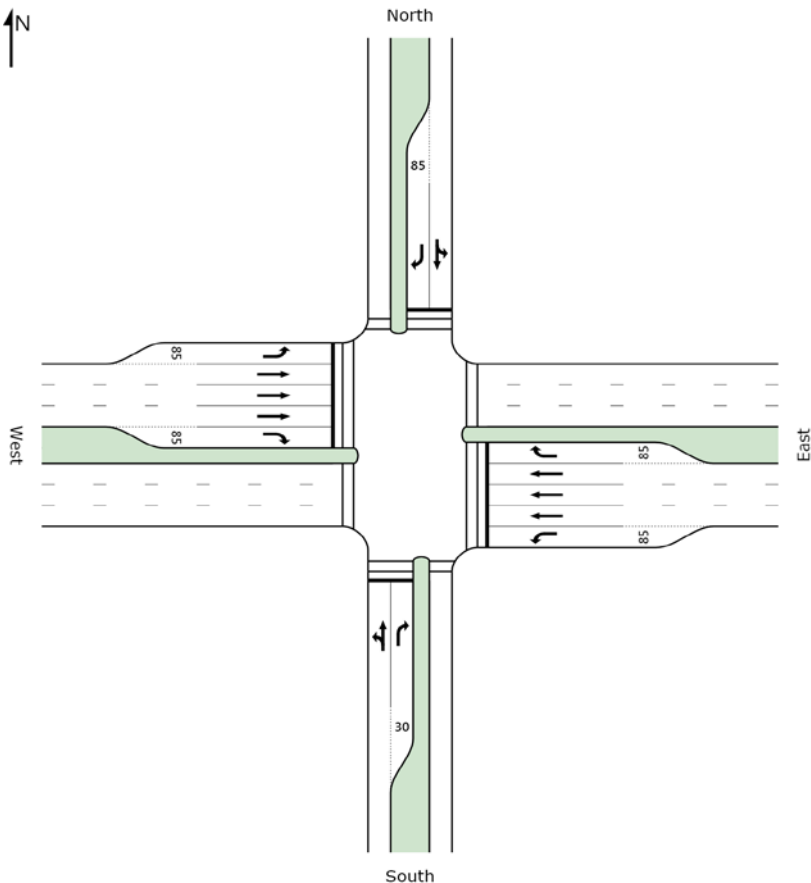
8447	318	1412	518	2248	LV*
352	13	59	22	94	HV*
8799	331	1471	540	2342	Total Vol*
0.981	0.567	0.928	0.946	0.946	DoS
274.6	78.1	243.1	152.5	243.1	95th %ile Back of Queue (m)
64.6	29.7	62.6	94.2	65.2	Average Delay (sec)
	L	T	R	App	

*Output Volumes

IN-53-02 (Type I - 4) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-02 am]



Phase	Grn	Total	%
A	59	65	54%
B1	6	12	10%
C	18	24	20%
D1	6	12	10%
D3	1	7	6%
Cycle		120	sec

North

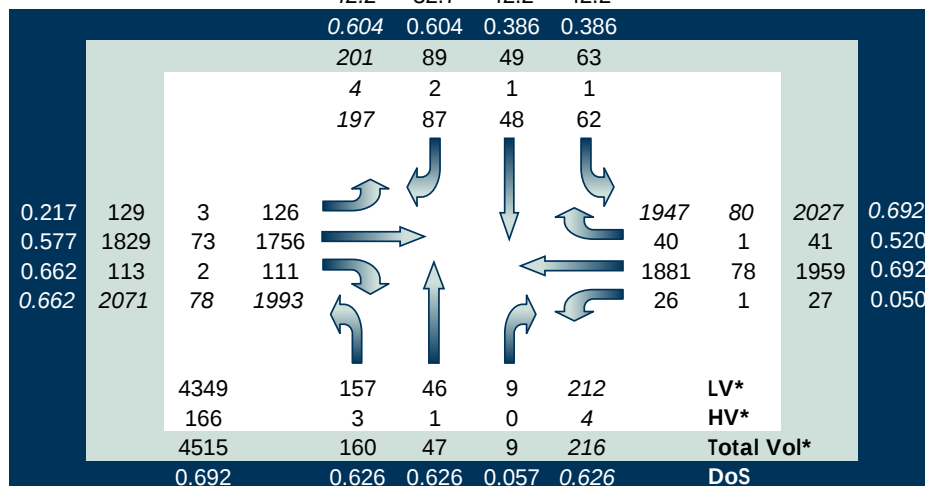
App	R	T	L
52.5	52.4	48.1	55.9
42.2	32.7	42.2	42.2
0.604	0.604	0.386	0.386

West

L	18.7	20.1	0.217	129	3	126
T	12.9	117.8	0.577	1829	73	1756
R	68.9	48.1	0.662	113	2	111
App	16.3	117.8	0.662	2071	78	1993

East

App	172.5	20.6	2027	0.692	172.5	20.6
R	18.2	75.2	41	0.520	18.2	75.2
T	172.5	19.5	1959	0.692	172.5	19.5
L	4.6	20.9	27	0.050	4.6	20.9



Intersection

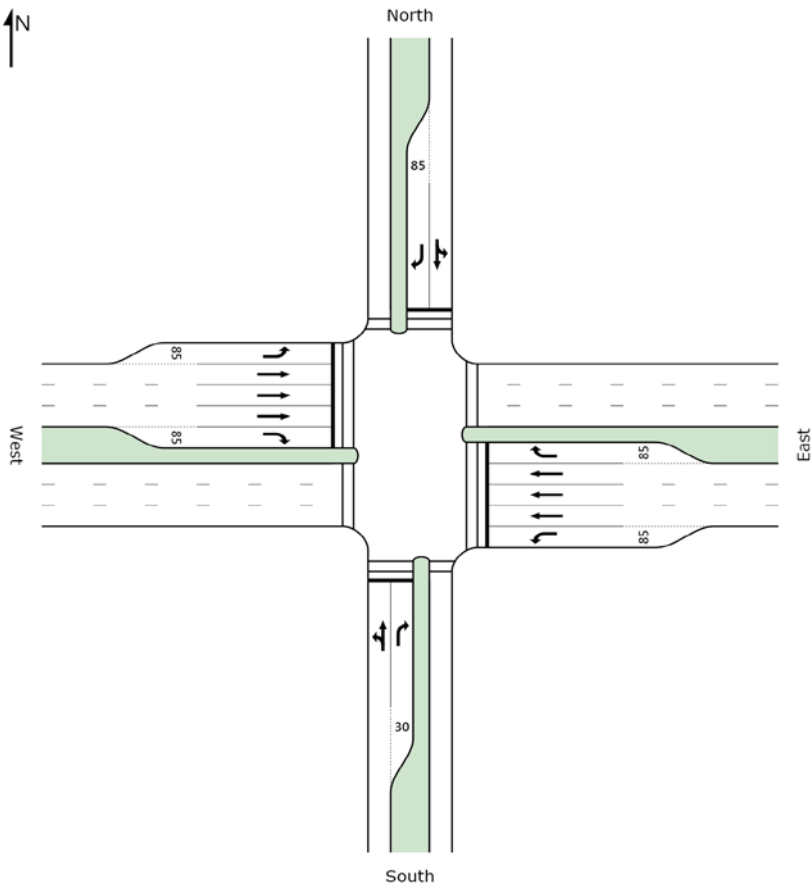
South

*Output Volumes

IN-53-02 (Type I - 4) - PM Peak - Ultimate Conditions

Signals

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Phase	Grn	Total	%
A	53	59	49%
B1	11	17	14%
C	18	24	20%
D1	7	13	11%
D3	1	7	6%
Cycle		120	sec

North

App	R	T	L
54	54.6	49.7	57.5
68.6	68.6	50.8	50.8
0.832	0.832	0.465	0.465

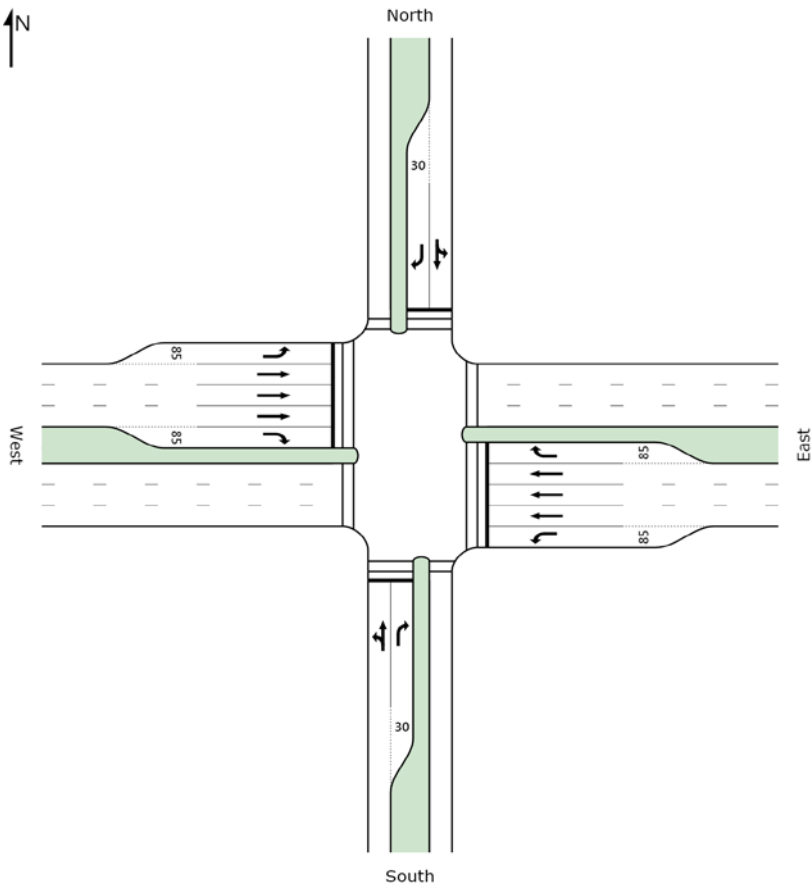
West		East	
L	18.8	13.8	0.152
T	19.5	198.2	0.744
R	76.9	74.2	0.859
App	23.3	198.2	0.859
Intersection		South	
L		T	
T		R	
R		App	
2391		2300	
89		87	
2144		2058	
158		155	
91		2300	
4944		129	
187		3	
5131		132	
0.859		0.684	
247.3		82.9	
29.6		58.3	
82.9		50.5	
9.7		43.1	
82.9		53.9	
95th %ile Back of Queue (m)		Average Delay (sec)	
LV*		HV*	
Total Vol*		DoS	
2193		2108	
70		15	
0.828		0.028	
247.3		2.6	
30.4		21.2	
App		R	
77.4		T	
28.9		L	

*Output Volumes

IN-53-03 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-03 am]



Phase	Grn	Total	%
A	62	68	57%
B1	6	12	10%
C	18	24	20%
D1	10	16	13%

Cycle 120 sec

North

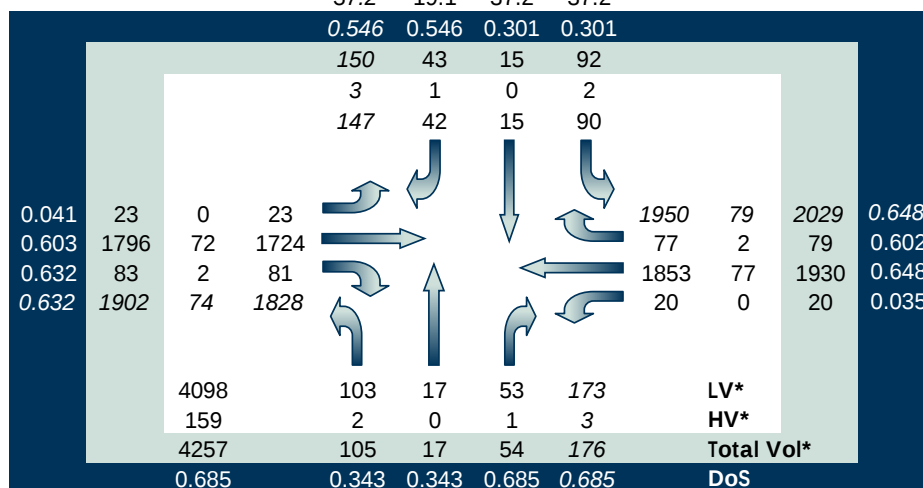
App	R	T	L
55.2	73.1	41.3	49.1
37.2	19.1	37.2	37.2
0.546	0.546	0.301	0.301

West

L	19.6	3.6	0.041	23	0	23
T	16	133.4	0.603	1796	72	1724
R	71.4	35.9	0.632	83	2	81
App	18.5	133.4	0.632	1902	74	1828

East

1950	79	2029	0.648	151.4	18.7	App
77	2	79	0.602	33.9	70.9	R
1853	77	1930	0.648	151.4	16.6	T
20	0	20	0.035	3.1	19.5	L



*Output Volumes

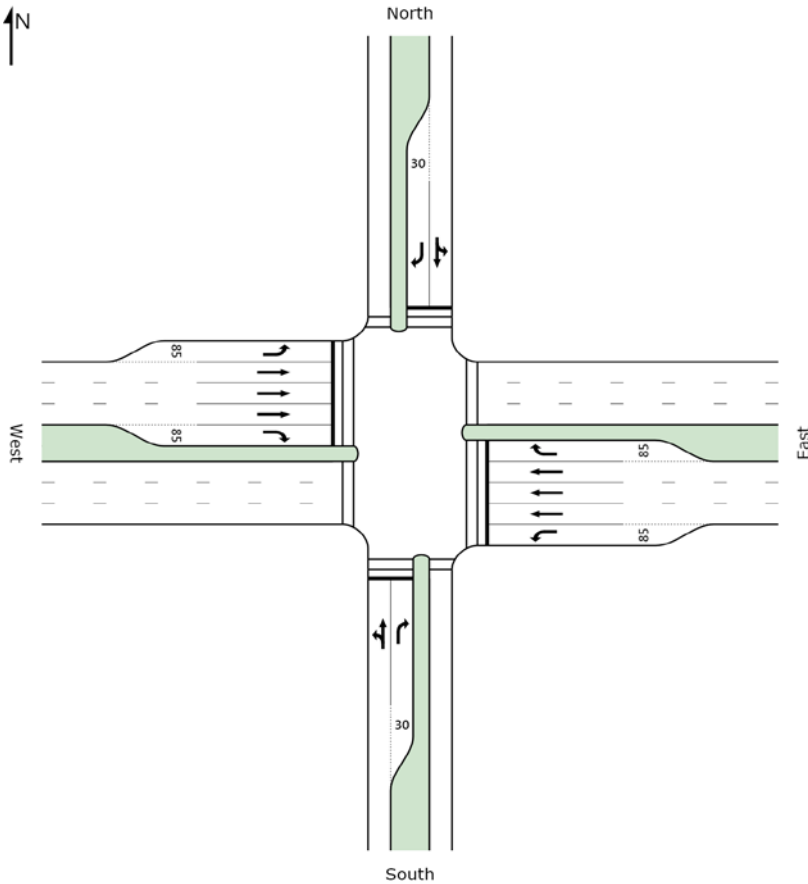
Intersection	L	T	R	App
151.4	42.9	42.9	24.5	42.9
21.5	49.6	41.8	74.7	56.5
0.685	0.343	0.343	0.685	0.685

South

IN-53-03 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-03 pm]



Phase	Grn	Total	%
A	56	62	52%
B1	12	18	15%
C	18	24	20%
D1	6	12	10%
D2	0	4	3%
Cycle		120	sec

North

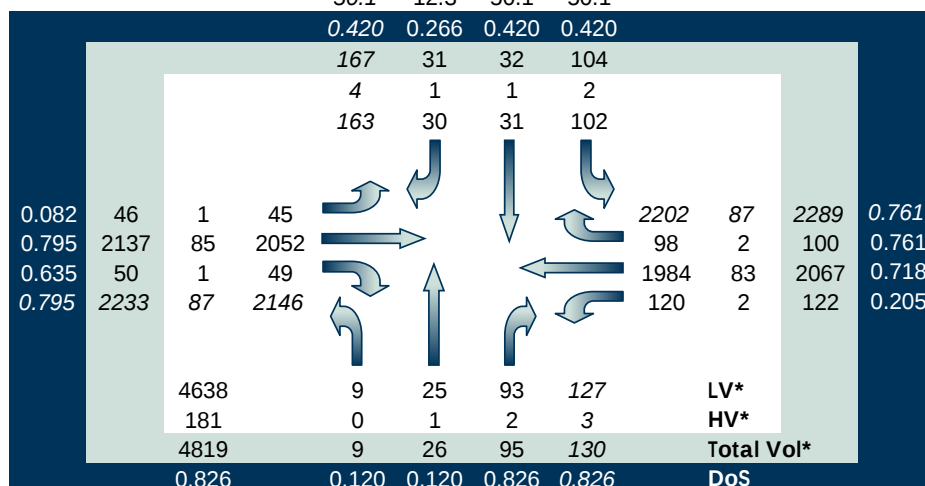
App	R	T	L
53.3	63	45.1	52.9
50.1	12.3	50.1	50.1
0.420	0.266	0.420	0.420

West

L	19.7	7.4	0.082	46	1	45
T	23.8	224.7	0.795	2137	85	2052
R	76.3	22.5	0.635	50	1	49
App	24.9	224.7	0.795	2233	87	2146

East

App	184.5	21.5	0.761	2289	87	2289
R	44.8	74.3	0.761	100	2	100
T	184.5	19.1	0.718	2067	83	2067
L	18.9	18.6	0.205	122	2	122



Intersection

South

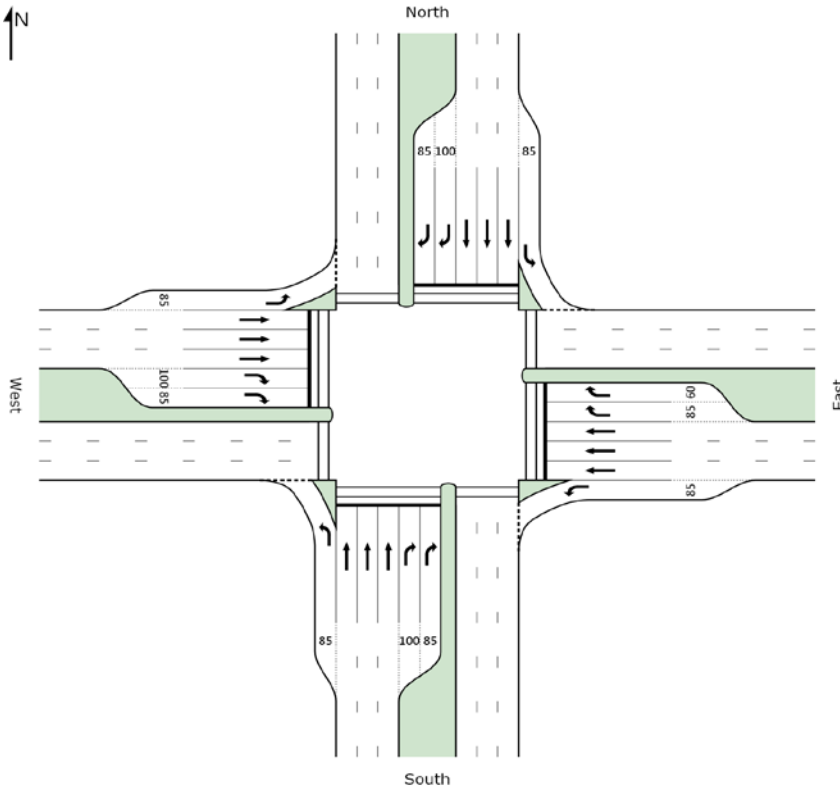
*Output Volumes

95th %ile Back of Queue (m)
Average Delay (sec)

IN-53-04 (Type I - 1) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-04 am]



Phase	Grn	Total	%
A	32	38	32%
B1	13	19	16%
B2	3	9	8%
C	31	37	31%
D1	11	17	14%
Cycle		120	sec

North

App	R	T	L
50.5	86.6	43.3	22.1
122.3	78.9	122.3	25.6
0.913	0.913	0.677	0.214

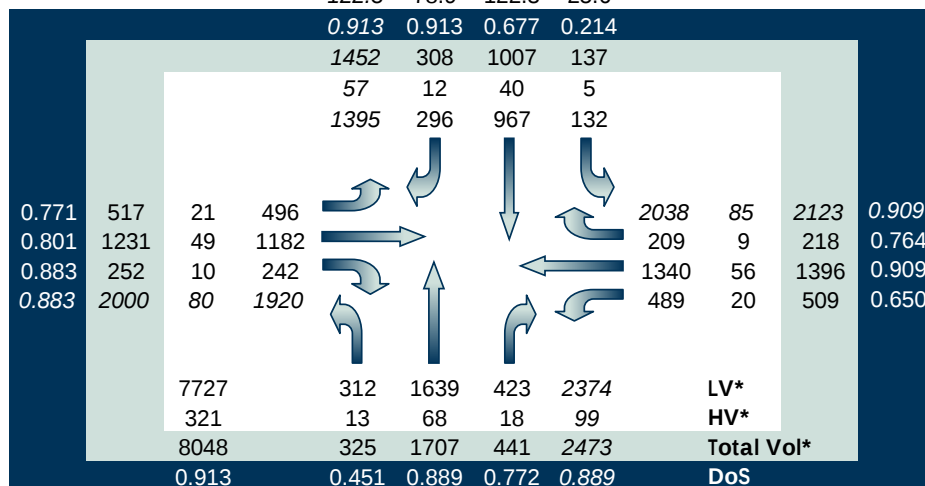
1452	308	1007	137
57	12	40	5
1395	296	967	132

West

L	29.9	127.2	0.771	517	21	496
T	46.9	164.1	0.801	1231	49	1182
R	82.6	61.8	0.883	252	10	242
App	47	164.1	0.883	2000	80	1920

East

2038	85	2123	0.909	219.6	50.8	App
209	9	218	0.764	49.5	74.8	R
1340	56	1396	0.909	219.6	58.4	T
489	20	509	0.650	102.4	19.7	L



7727	312	1639	423	2374	LV*
321	13	68	18	99	HV*
8048	325	1707	441	2473	Total Vol*
0.913	0.451	0.889	0.772	0.889	DoS
250.5	66.5	250.5	95.8	250.5	95th %ile Back of Queue (m)
48.9	22.6	48	66.1	47.9	Average Delay (sec)
Intersection	L	T	R	App	

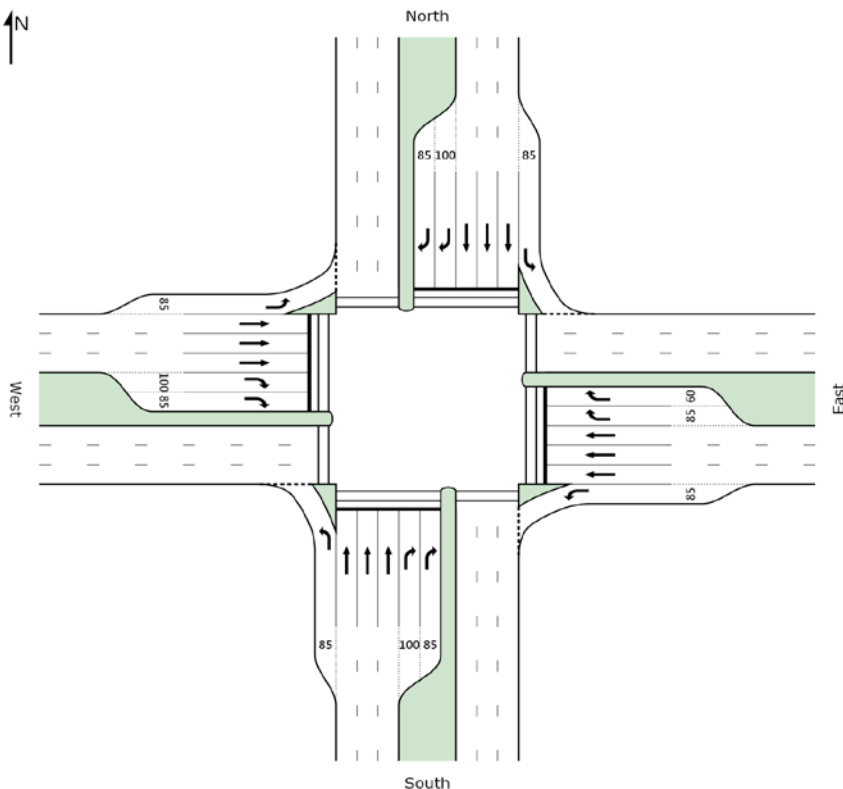
*Output Volumes

South

IN-53-04 (Type I - 1) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-04 pm]



Phase	Grn	Total	%
A	27	33	28%
B1	22	28	23%
B2	33	39	33%
C	8	14	12%
D1	0	6	5%
D3			
Cycle		120	sec

North

App	R	T	L
60.7	78.8	57.9	23.6
226.6	127.6	226.6	28.9
0.910	0.895	0.910	0.228

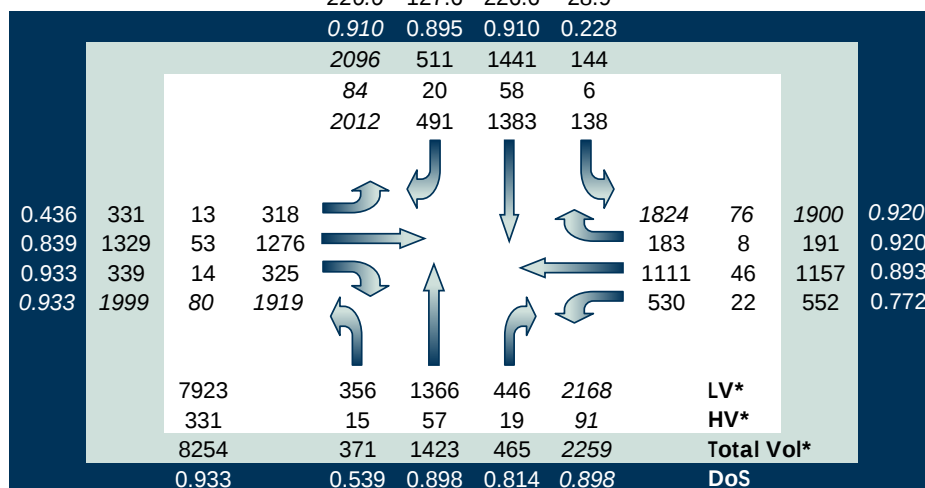
2096	511	1441	144
84	20	58	6
2012	491	1383	138

West

L	20.4	61.2	0.436	331	13	318
T	48.8	184.4	0.839	1329	53	1276
R	91.5	90.5	0.933	339	14	325
App	51.3	184.4	0.933	1999	80	1919

East

1824	76	1900	0.920	178	53	App
183	8	191	0.920	49	89.7	R
1111	46	1157	0.893	178	58.7	T
530	22	552	0.772	126.1	28.4	L



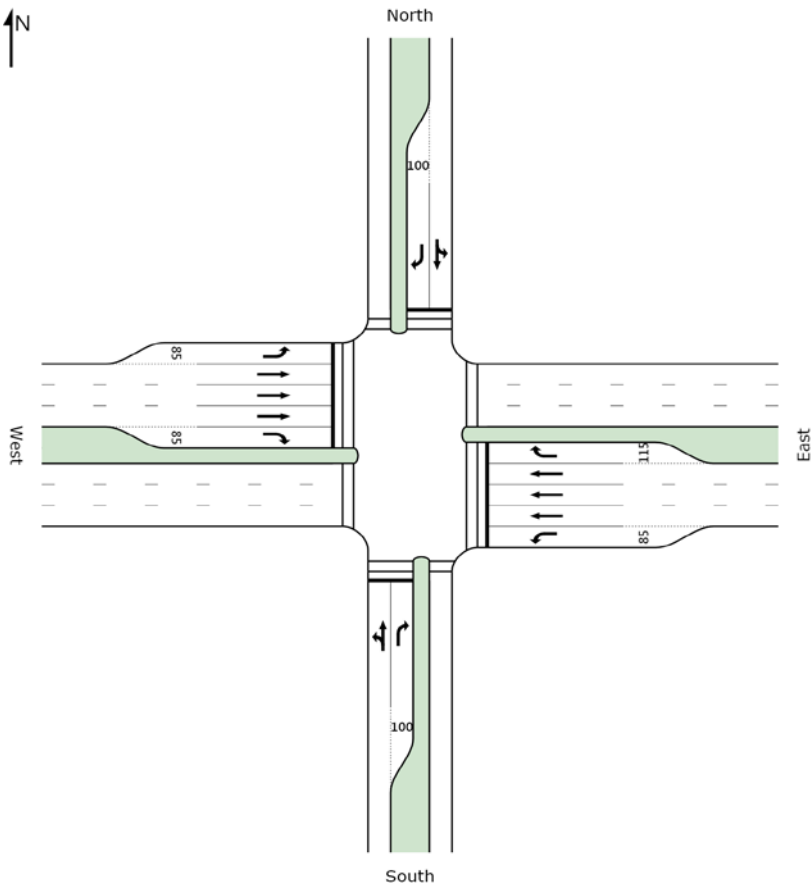
7923	356	1366	446	2168	LV*
331	15	57	19	91	HV*
8254	371	1423	465	2259	Total Vol*
0.933	0.539	0.898	0.814	0.898	DoS
226.6	84.8	218.2	104.6	218.2	95th %ile Back of Queue (m)
54.7	25.8	55.8	68.8	53.6	Average Delay (sec)
Intersection	L	T	R	App	

*Output Volumes

IN-53-05 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-05 am]



Phase	Grn	Total	%
A	34	40	33%
B1	17	23	19%
B2	0	6	5%
C	18	24	20%
D1	8	14	12%
D2	7	13	11%
Cycle		120	sec

North

App	R	T	L
65.5	47.6	74.9	82.7
154.5	84	154.5	154.5
0.927	0.837	0.927	0.927

West		East	
L	30.3	47.3	0.423
T	66	263.7	0.941
R	78	39.3	0.809
App	62.8	263.7	0.941

191	4	187	11	5	2	4	2176	79	2255	0.968	190.3	38.2	App
1536	61	1475	524	237	84	203	262	5	267	0.968	159.7	105.3	R
85	2	83					1643	68	1711	0.758	190.3	30.6	T
1812	67	1745					271	6	277	0.481	50.9	20.6	L

5087	167	137	338	642	LV*
170	3	3	7	13	HV*
5257	170	140	345	655	Total Vol*
0.968	0.828	0.828	0.937	0.937	DoS
263.7	136.1	136.1	158.8	158.8	95th %ile Back of Queue (m)
52.7	62.5	54.7	68.4	64	Average Delay (sec)

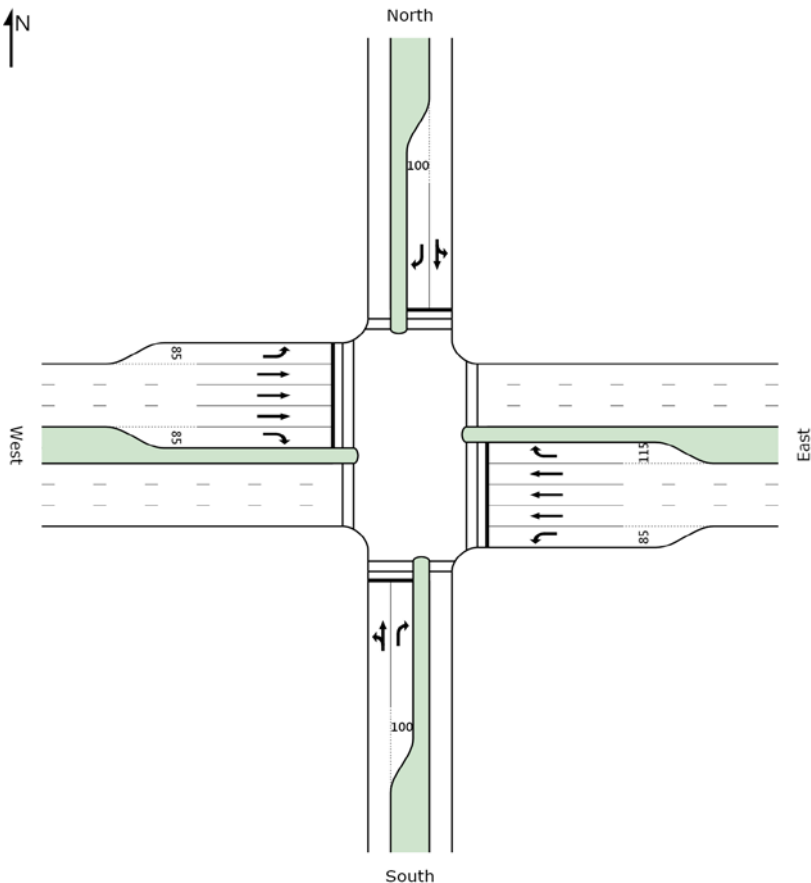
Intersection	L	T	R	App
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*Output Volumes

IN-53-05 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-05 pm]



Phase	Grn	Total	%
A	46	52	43%
B1	8	14	12%
B2	26	32	27%
C	16	22	18%
D1			
D2			
Cycle		120	sec

North

App	R	T	L
66.7	65.5	62.5	70.2
180.3	87	180.3	180.3
0.896	0.880	0.896	0.896

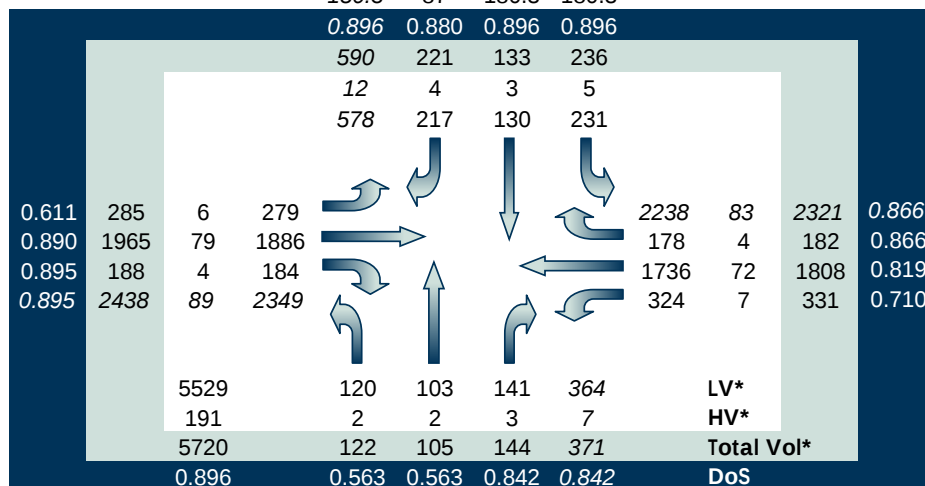
590	221	133	236
12	4	3	5
578	217	130	231

West

L	29.9	72.3	0.611	285	6	279
T	42.5	281.1	0.890	1965	79	1886
R	80.5	92.1	0.895	188	4	184
App	44	281.1	0.895	2438	89	2349

East

2238	83	2321	0.866	222.8	37.6	App
178	4	182	0.866	85.8	76.4	R
1736	72	1808	0.819	222.8	34.8	T
324	7	331	0.710	88.9	31.3	L



5529	120	103	141	364	LV*
191	2	2	3	7	HV*
5720	122	105	144	371	Total Vol*
0.896	0.563	0.563	0.842	0.842	DoS

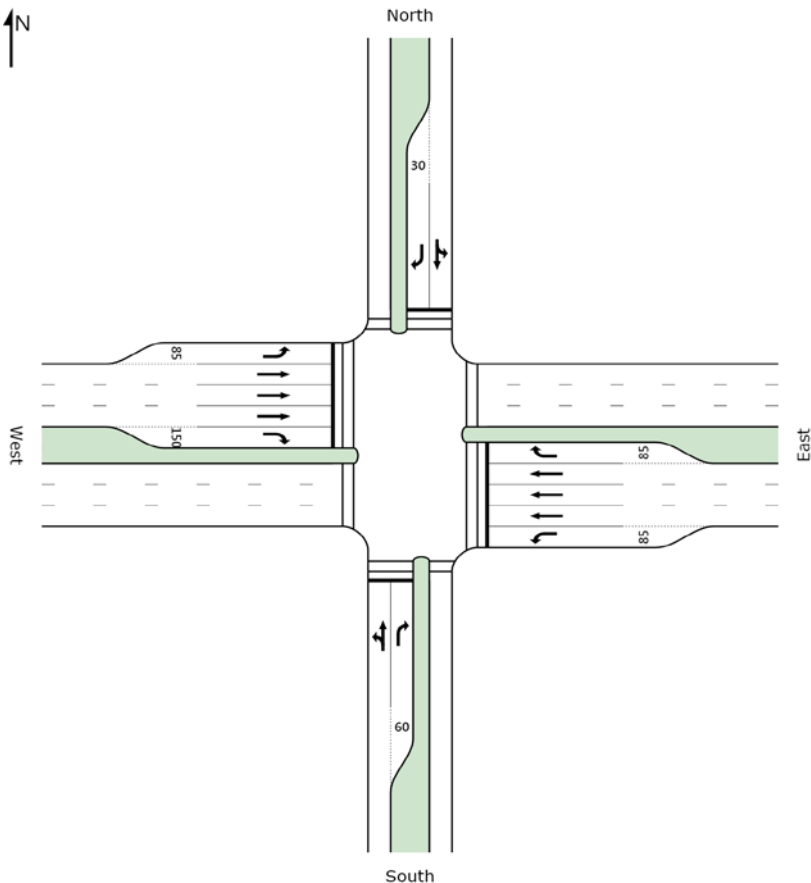
281.1	84.1	84.1	51.8	84.1	95th %ile Back of Queue (m)
44.1	51.3	43.5	52.1	49.4	Average Delay (sec)
Intersection	L	T	R	App	

*Output Volumes

IN-53-06 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-06 am]



Phase	Grn	Total	%
A	57	63	53%
B1	6	12	10%
C	18	24	20%
D1	6	12	10%
D3	3	9	8%
Cycle		120	sec

North

App	R	T	L
47.4	47.4	43.6	51.3
0.7	0.3	0.7	0.7
0.007	0.007	0.007	0.007

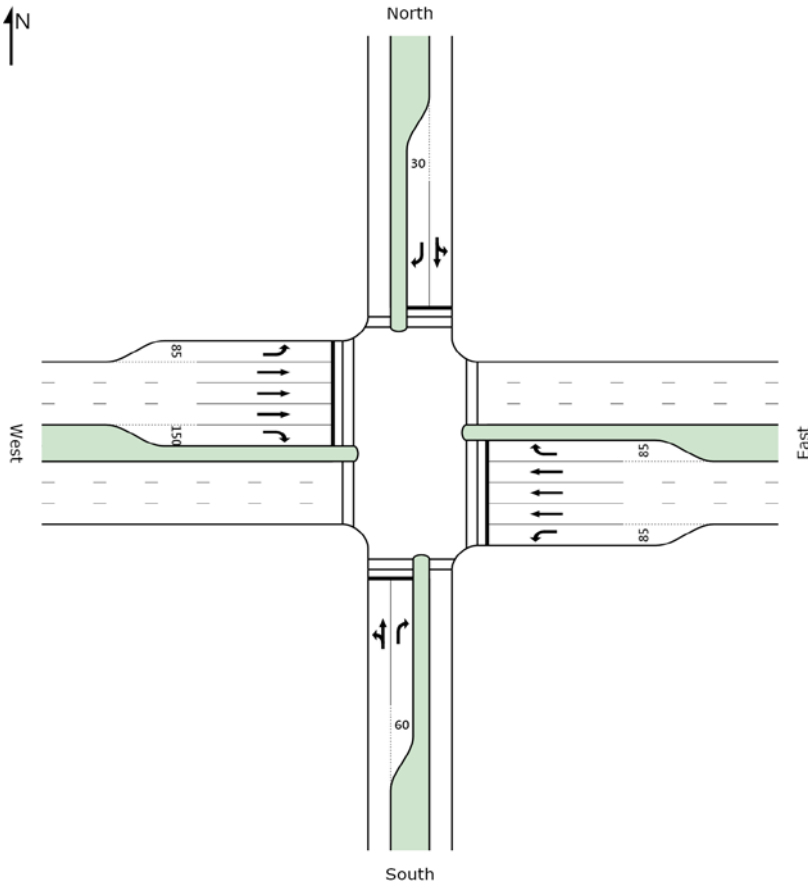
West				East				South			
L	T	R	App	L	T	R	App	L	T	R	App
17.7	13.3	67.9	16.9	0.1	132	58.7	132	0.002	0.615	0.701	0.701
1	1950	138	2089	0	78	3	81	1	1950	138	2089
0	78	3	81	1	1950	138	2089	0	78	3	81
1	1872	135	2008	1	1872	135	2008	1	1872	135	2008
1988	1	1884	103	80	0	78	2	1988	1	1884	103
2068	1	1962	105	2068	1	1962	105	2068	1	1962	105
0.717	0.013	0.717	0.200	184.3	0.4	184.3	19.6	0.717	0.013	0.717	0.200
184.3	0.4	184.3	19.6	21.5	70.5	21.5	22.5	184.3	0.4	184.3	19.6
21.5	70.5	21.5	22.5	21.5	70.5	21.5	22.5	21.5	70.5	21.5	22.5
App	R	T	L	App	R	T	L	App	R	T	L
4477	283	1	194	478	LV*			4477	283	1	194
171	6	0	4	10	HV*			171	6	0	4
4648	289	1	198	488	Total Vol*			4648	289	1	198
0.717	0.588	0.588	0.626	0.626	DoS			0.717	0.588	0.588	0.626
184.3	101.5	101.5	73.7	101.5	95th %ile Back of Queue (m)			184.3	101.5	101.5	73.7
22.4	44.4	36.6	57.1	49.5	Average Delay (sec)			22.4	44.4	36.6	57.1
Intersection	L	T	R	App				Intersection	L	T	R

*Output Volumes

IN-53-06 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-06 pm]



Phase	Grn	Total	%
A	54	60	50%
B1	6	12	10%
C	18	24	20%
D1	6	12	10%
D3	6	12	10%
Cycle		120	sec

North

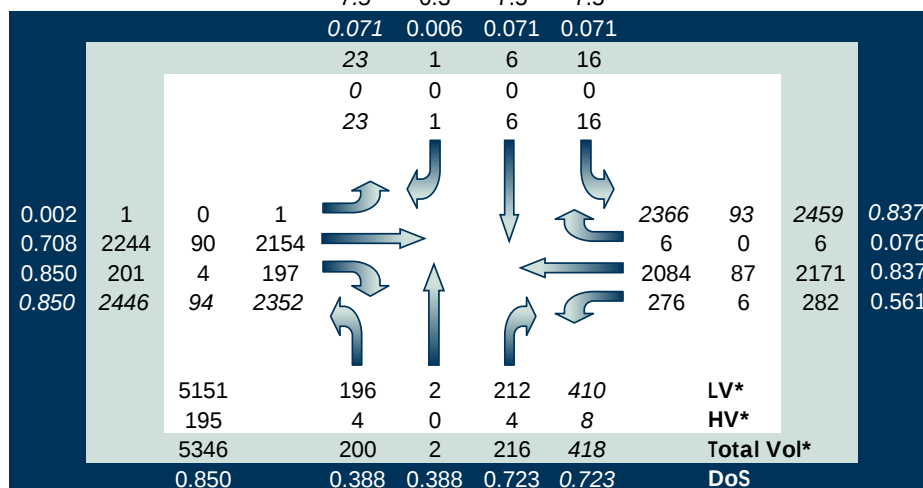
App	R	T	L
47.8	46.8	42.1	49.9
7.5	0.3	7.5	7.5
0.071	0.006	0.071	0.071

West

L	17.7	0.1	0.002
T	14.4	173.5	0.708
R	73.4	92.9	0.850
App	19.3	173.5	0.850

East

App	257	28.5	0.837
R	2.5	72	0.076
T	257	28.7	0.837
L	64.1	26	0.561



Intersection

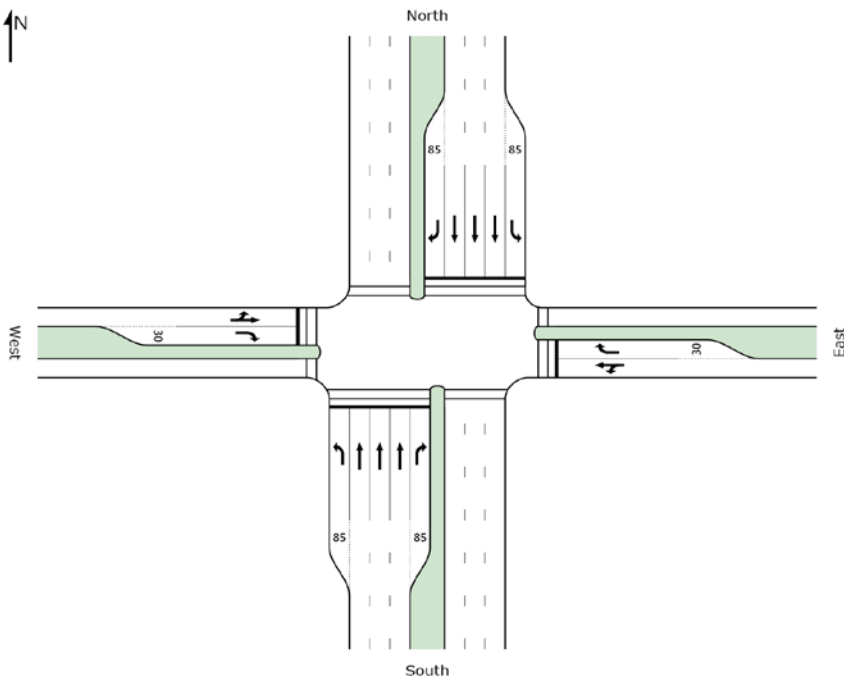
South

*Output Volumes

IN-53-07 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-07 am]



Phase	Grn	Total	%
A	65	71	59%
B1	6	12	10%
C	18	24	20%
D1	6	12	10%
D2	0	1	1%
Cycle		120	sec

North

App	R	T	L
15.8	75.7	14.4	18.6
147.7	20.1	147.7	8.9
0.649	0.571	0.649	0.101

2130	45	2026	59
83	1	81	1
2047	44	1945	58

West

L	47	5.6
T	39.2	5.6
R	71.4	9.5
App	60.4	9.5

15	0	15	63	2	65
2	0	2	25	1	26
22	0	22	7	0	7
39	0	39	31	1	32
4529	75	2250	55	2380	LV*
182	2	94	1	97	HV*
4711	77	2344	56	2477	Total Vol*
0.740	0.129	0.740	0.609	0.740	DoS

East

0.330	13.2	57.1	App
0.330	11.3	71.7	R
0.118	13.2	40.9	T
0.118	13.2	48.7	L

*Output Volumes

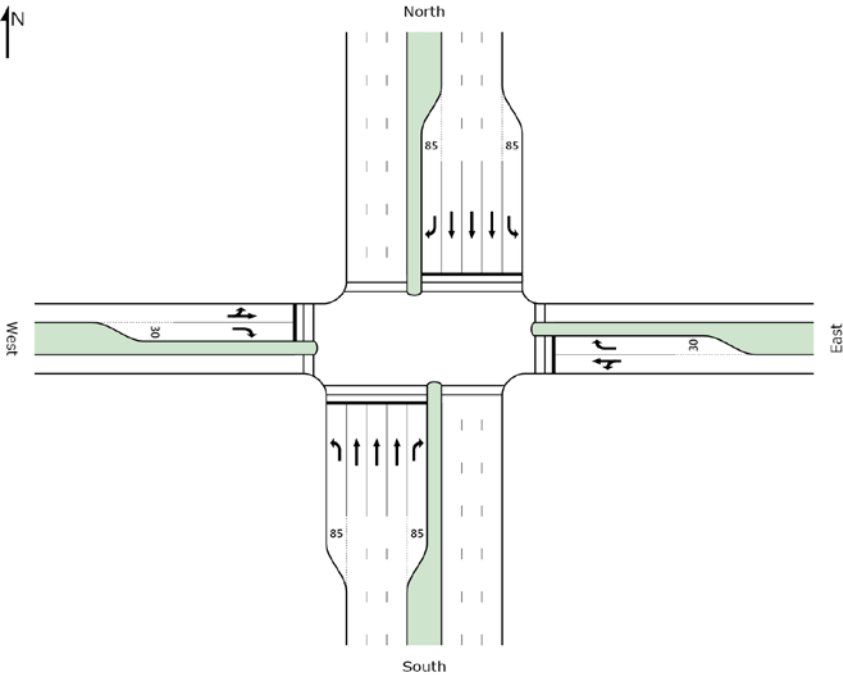
190.5	11.6	190.5	24.8	190.5
17	18.3	14.8	74.7	16.3
Intersection	L	T	R	App

South

IN-53-07 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-07 pm]



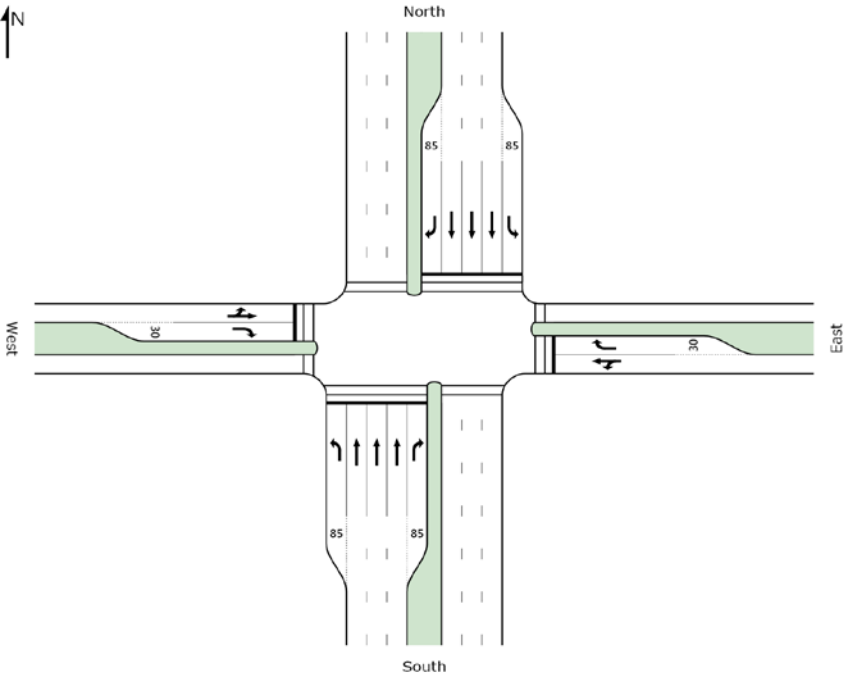
Phase	Grn	Total	%
A	64	70	58%
B1	8	14	12%
C	18	24	20%
D1	6	12	10%
Cycle	120 sec		

North														
Cycle														
120 sec														
West														
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T														
R														
App														
L														
T														
R														
App														
L														
T														
R														
App														
L														
T														
R														
App														
L														
T														
R														
App														
L														
T														
R														
App														
L														

IN-53-08 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-08 am]

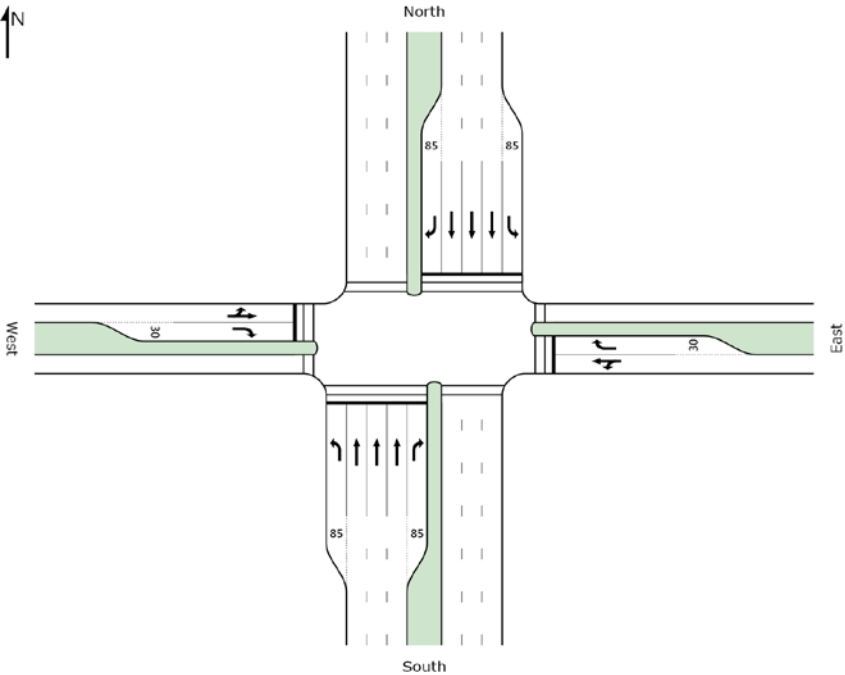


														Phase				Grn	Total	%				
														A				64	70	58%				
														B1				6	12	10%				
														C				18	24	20%				
														D1				8	14	12%				
														D3										
														Cycle					120	sec				
														North										
														App	R	T	L							
														17.1	78.5	13.8	18.9							
														105.7	39.9	105.7	7.2							
														0.819	0.819	0.532	0.081							
														1767	86	1634	47							
														68	2	65	1							
														1699	84	1569	46							
														East										
														L	47.1	14.6	0.124	39	1	38				
														T	39.3	14.6	0.124	5	0	5				
														R	72.5	16.3	0.470	37	1	36				
														App	58.2	16.3	0.470	81	2	79				
																		4275	72	2314	55	2441	LV*	
																		169	1	96	1	98	HV*	
																		4444	73	2410	56	2539	Total Vol*	
																		0.819	0.126	0.784	0.533	0.784	DoS	
																		219.7	11.5	219.7	24.2	219.7	95th %ile Back of Queue (m)	
																		19	19.1	17	72.5	18.3	Average Delay (sec)	
														Intersection				L	T	R	App			

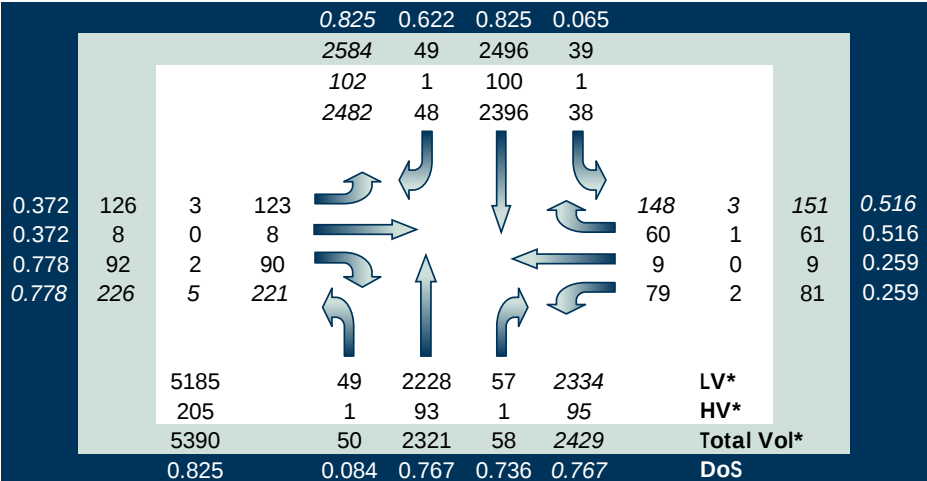
IN-53-08 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-08 pm]



Phase	Grn	Total	%
A	63	69	58%
B1	9	15	13%
C	18	24	20%
D1	6	12	10%
Cycle	120 sec		

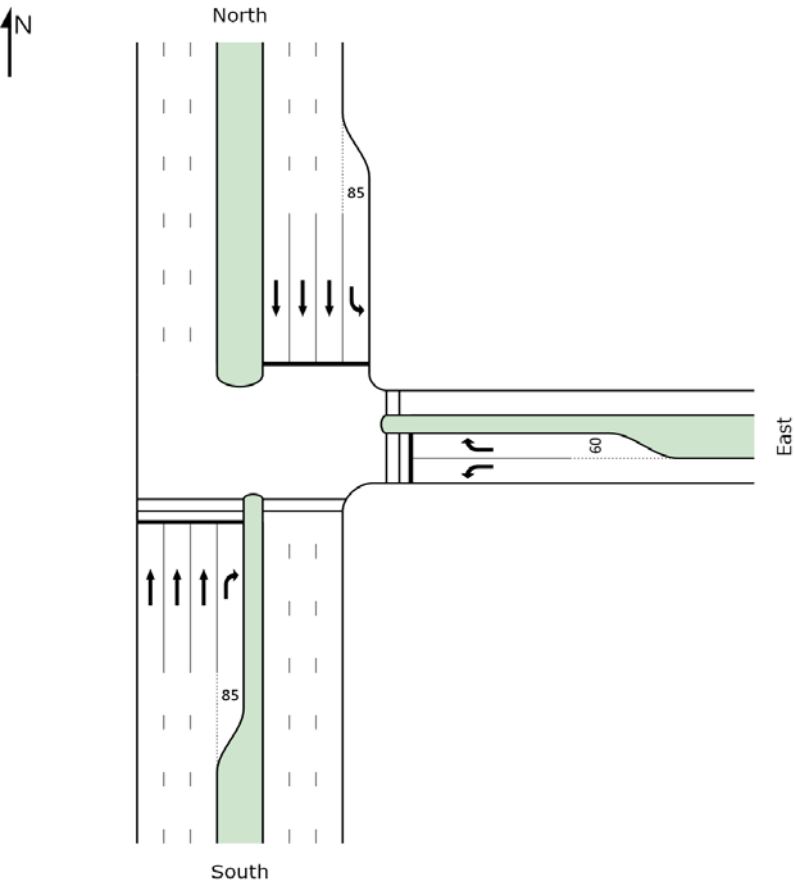
		North															
		App	R	T	L					Cycle	120	sec					
		20.4	76.2	19.3	18.1												
		252.5	22	252.5	5.7												
		0.825	0.622	0.825	0.065												
		2584	49	2496	39												
		102	1	100	1												
		2482	48	2396	38												
																	
		148	3	151	0.516	31.2	56.8	App									
		60	1	61	0.516	26	68.8	R									
		9	0	9	0.259	31.2	41.7	T									
		79	2	81	0.259	31.2	49.5	L									
		5185	49	2228	57	2334	LV*										
		205	1	93	1	95	HV*										
		5390	50	2321	58	2429	Total Vol*										
		0.825	0.084	0.767	0.736	0.767	DoS										
		252.5	7.4	210	26.6	210	95th %ile Back of Queue (m)										
		22.4	18.2	17.5	78	19	Average Delay (sec)										
		Intersection	L	T	R	App											
		South															

*Output Volumes

IN-53-09 (Type I - 5a) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-09 pm]



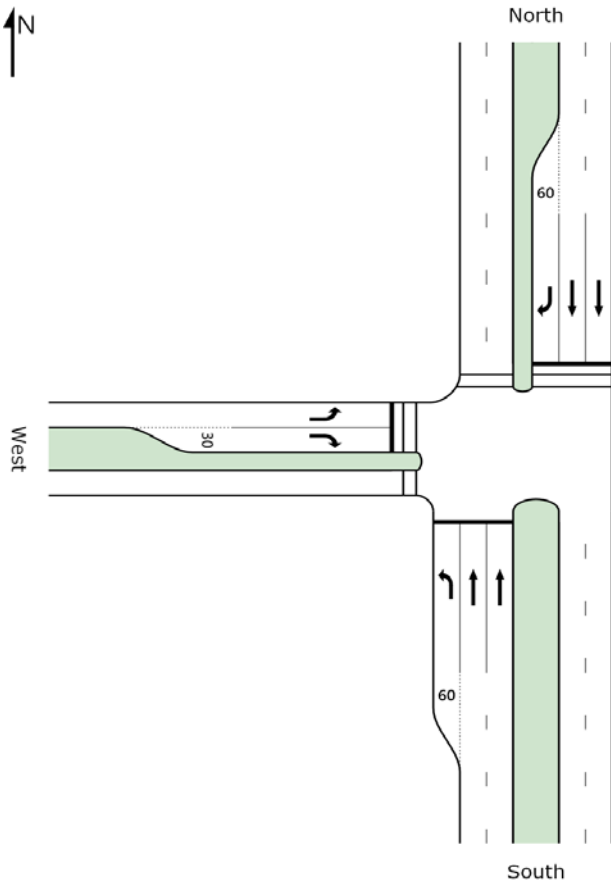
Phase	Grn	Total	%
A	62	68	57%
B	20	26	22%
C	20	26	22%

North										Cycle			
										120 sec			

IN-53-10 (Type I - 6a) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-10 pm]



Phase	Grn	Total	%
A	28	34	28%
B	43	49	41%
G	31	37	31%

Cycle 120 sec

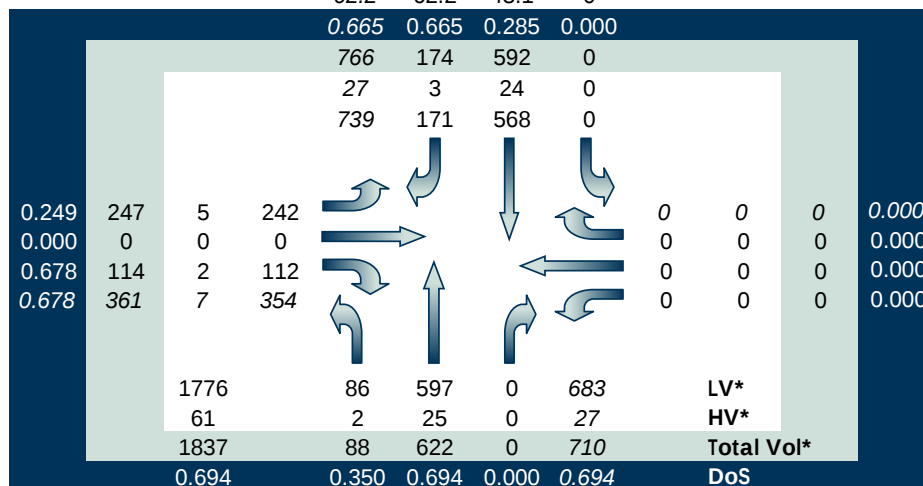
North

App	R	T	L
19.5	48.5	11	0
62.2	62.2	43.1	0
0.665	0.665	0.285	0.000

766	174	592	0
27	3	24	0
739	171	568	0

West

L	15.7	40.5	0.249	247	5	242
T	0	0	0.000	0	0	0
R	38.6	34.7	0.678	114	2	112
App	22.9	40.5	0.678	361	7	354



1776	86	597	0	683
61	2	25	0	27
1837	88	622	0	710

0.694	0.350	0.694	0.000	0.694
117.1	30.2	117.1	0	117.1
30.5	48.3	45.8	0	46.1
Intersection	L	T	R	App

South

*Output Volumes

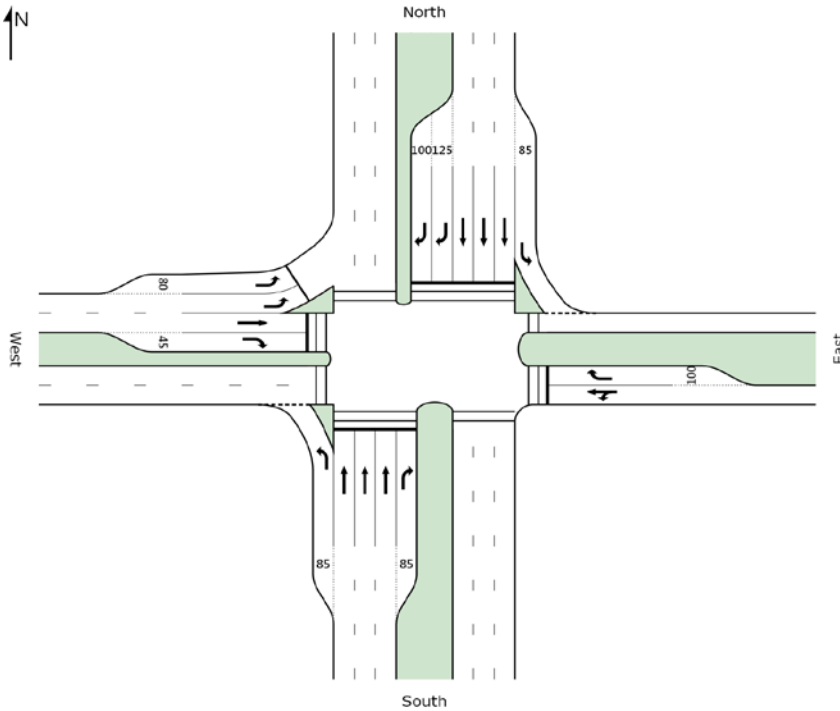
LV*
HV*
Total Vol*
DoS

95th %ile Back of Queue (m)
Average Delay (sec)

IN-53-11 (Type I - 1b) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-11 am]



Phase	Grn	Total	%
A	16	22	18%
B1	8	14	12%
B3	16	22	18%
C	29	35	29%
D1	6	12	10%
D2	9	15	13%
Cycle		120	sec

North

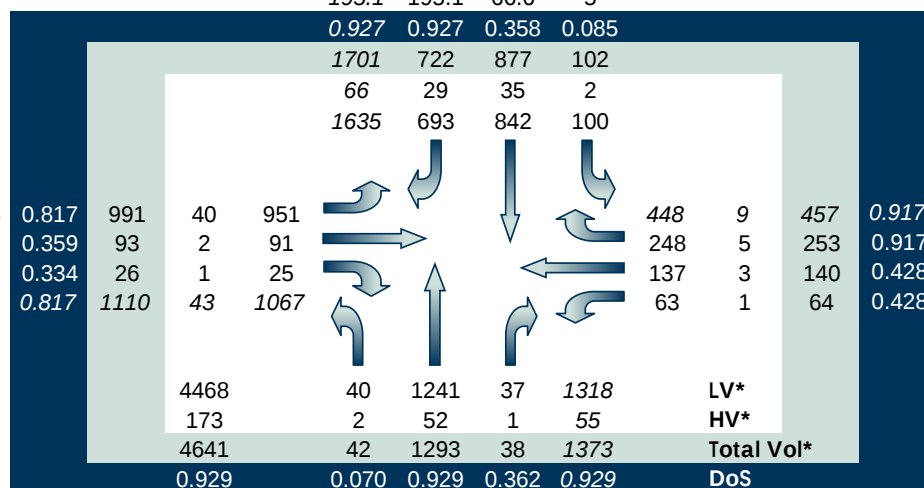
App	R	T	L
42.9	73.4	21.6	10.7
195.1	195.1	66.6	5
0.927	0.927	0.358	0.085
1701	722	877	102

West

L	44	250.3	0.817	991	40	951
T	53.3	36.1	0.359	93	2	91
R	73.3	11.5	0.334	26	1	25
App	45.4	250.3	0.817	1110	43	1067

East

448	9	457	0.917	129.8	63	App
248	5	253	0.917	129.8	80.7	R
137	3	140	0.428	70.2	38.6	T
63	1	64	0.428	70.2	46.4	L



Intersection

South

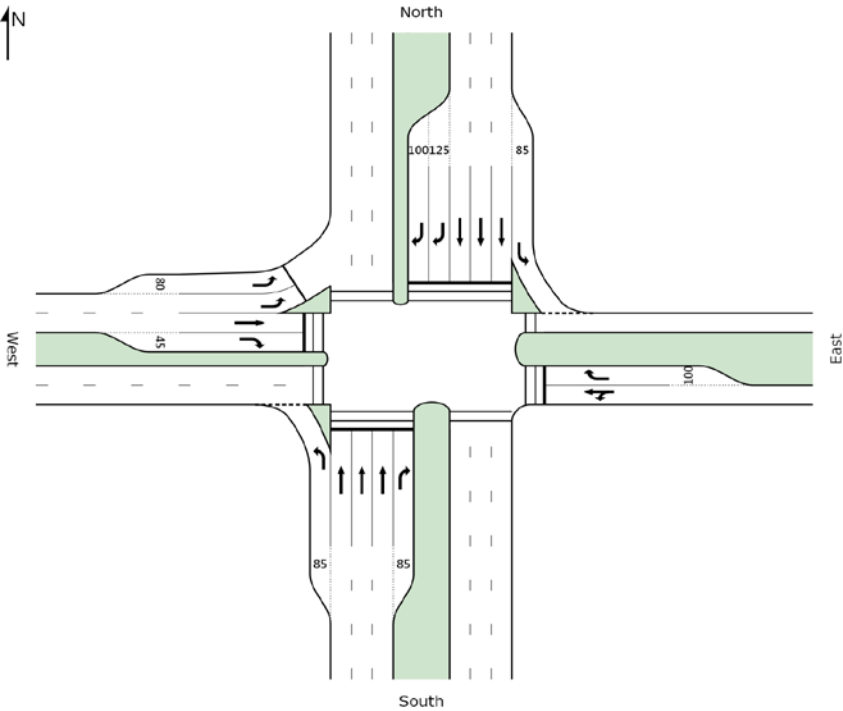
*Output Volumes

95th %ile Back of Queue (m)
Average Delay (sec)

IN-53-11 (Type I - 1b) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-11 pm]

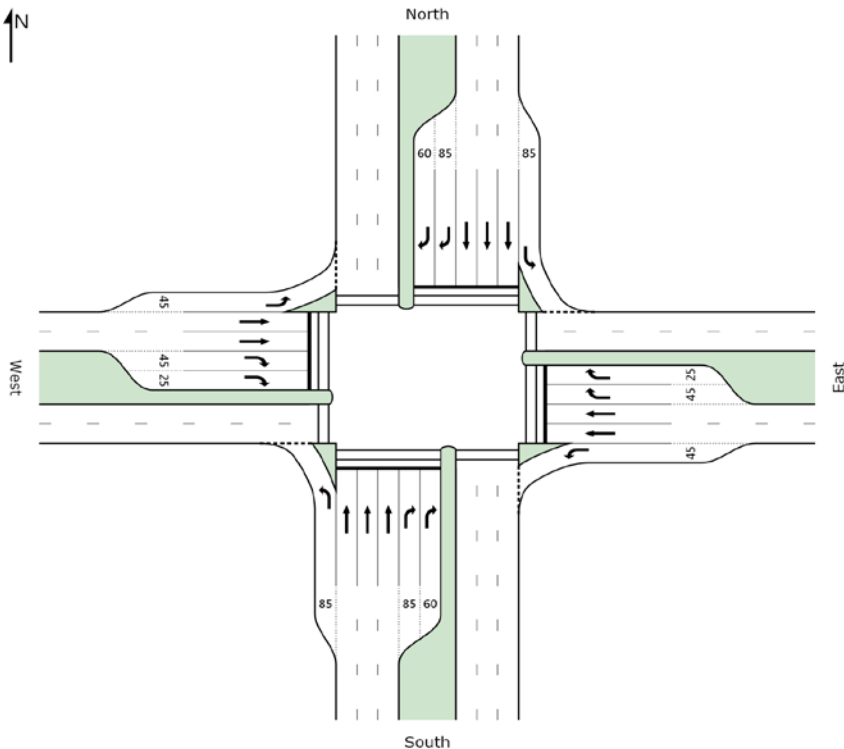


North														
Phase														
Grn														
Total														
%														
Cycle														
120 sec														
App														
R														
T														
L														
0.937														
2442														
92														
2350														
352														
156														
141														
55														
5225														
199														
5424														
0.937														
208.7														
43.6														
Intersection														
L														
T														
R														
App														
South														
West														
East														
App														
R														
T														
L														
0.931														
82.9														
66.3														
0.931														
82.9														
0.558														
76.2														
47.2														
0.558														
76.2														
55														
LV*														
HV*														
Total Vol*														
DoS														
95th %ile Back of Queue (m)														
Average Delay (sec)														
*Output Volumes														

IN-53-12 (Type I - 2) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-12 am]



Phase	Grn	Total	%
A	18	24	20%
B1	7	13	11%
B3	0	4	3%
C	55	61	51%
D1	6	12	10%
D2	0	6	5%
Cycle		120	sec

North

App	R	T	L
21.7	68.9	18.7	10.8
150	31.3	150	6.6

0.639	0.515	0.639	0.123
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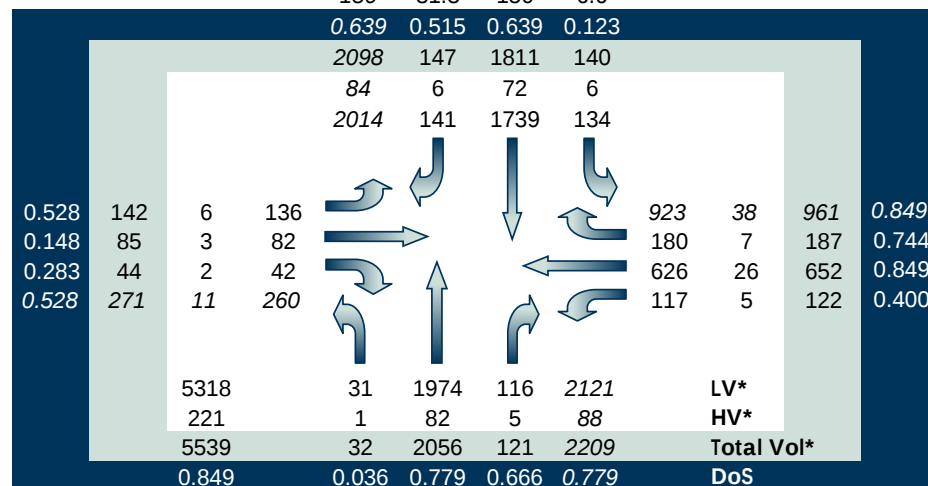
2098	147	1811	140
------	-----	------	-----

84	6	72	6
----	---	----	---

2014	141	1739	134
------	-----	------	-----

West

L	21.3	29.9
T	48.2	15
R	72.9	9.7
App	38.1	29.9



East

0.849	142.7	53.5	App
0.744	51.9	70.7	R
0.849	142.7	55.8	T
0.400	16.8	14.4	L

Intersection

L	T	R	App
---	---	---	-----

South

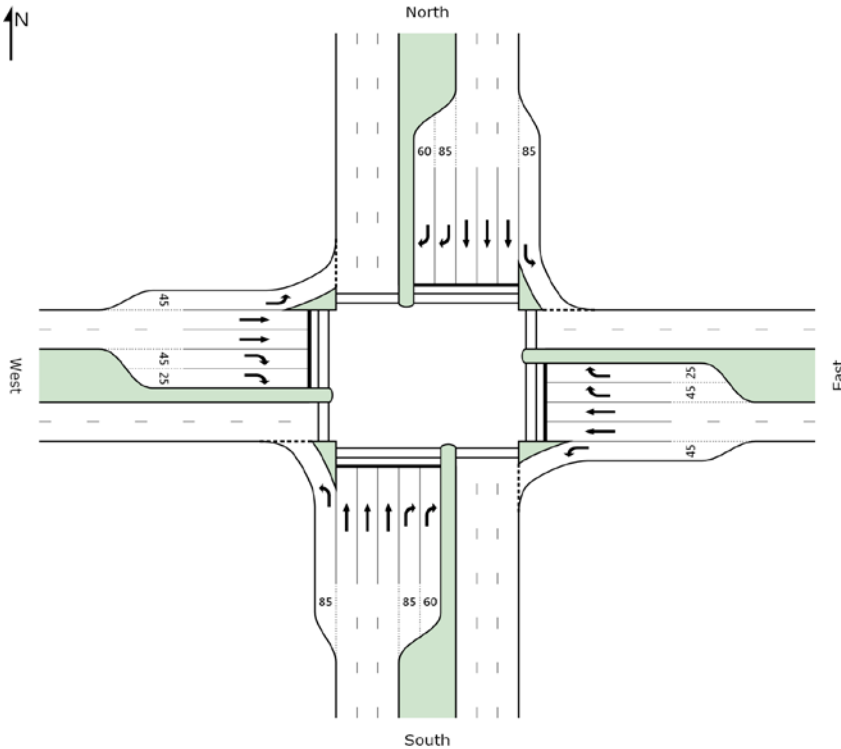
*Output Volumes

95th %ile Back of Queue (m)
Average Delay (sec)

IN-53-12 (Type I - 2) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-12 pm]



Phase	Grn	Total	%
A	30	36	30%
B1	8	14	12%
C	50	56	47%
D1	8	14	12%

Cycle 120 sec

North

App	R	T	L
36.4	80.4	34.8	16.5
268	42.6	268	33.4
0.861	0.853	0.861	0.276
2467	177	2066	224

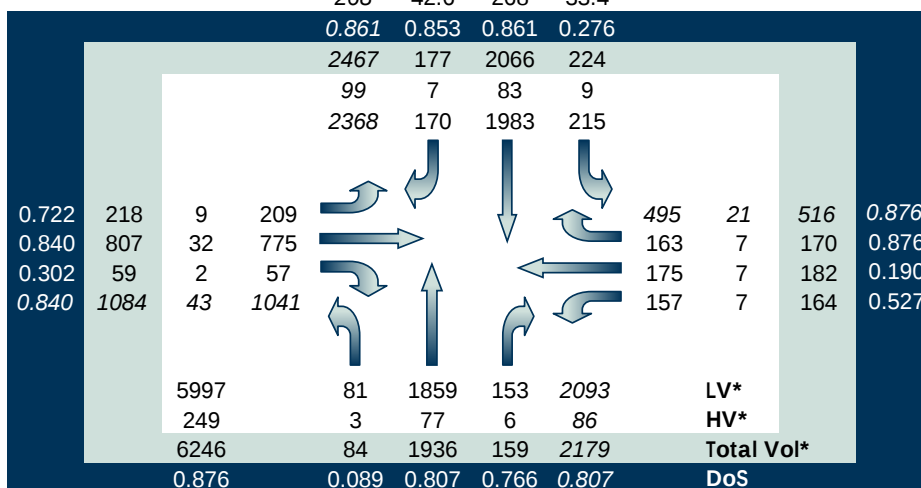
99	7	83	9
2368	170	1983	215

West

L	25.9	53.3	0.722	218	9	209
T	51	170.7	0.840	807	32	775
R	70.1	13.5	0.302	59	2	57
App	47	170.7	0.840	1084	43	1041

East

495	21	516	0.876	44.5	46.7	App
163	7	170	0.876	44.5	81.6	R
175	7	182	0.190	27.4	38	T
157	7	164	0.527	31.9	20.2	L



Intersection

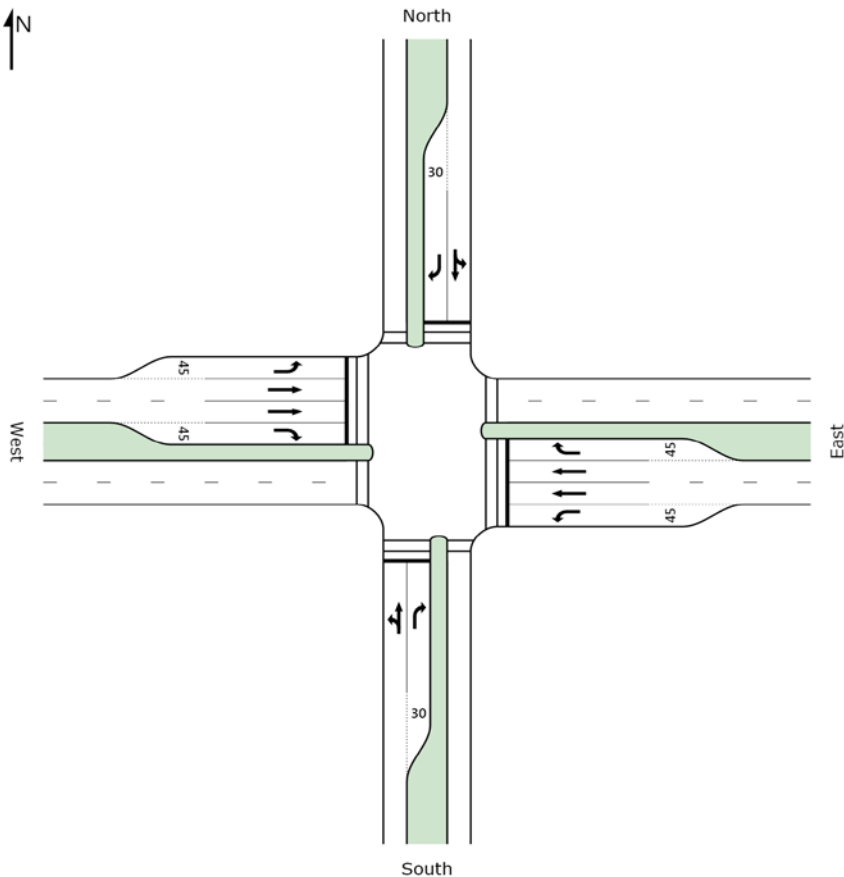
South

*Output Volumes

IN-53-13 (Type I - 6) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-13 am]



Phase	Grn	Total	%
A	35	41	34%
B1	17	23	19%
B2	16	22	18%
C	16	22	18%
D1	6	12	10%
Cycle		120	sec

North

App	R	T	L
53.5	56.1	48.2	55.5
11.3	9.3	11.3	11.3
0.202	0.202	0.121	0.121

West		East	
L	24.7	5.8	0.095
T	34.6	41.6	0.259
R	71.6	12.7	0.368
App	36.9	41.6	0.368

North	South	East	West
57	26	17	14
1	1	0	0
56	25	17	14
1512	76	30	121
55	2	1	2
1567	78	31	123
0.784	0.189	0.189	0.784
161.5	31.1	31.1	44.8
41.2	35.6	28.3	50.1

South	North	East	West
121	57	17	14
227	1	0	0
232	56	17	14
227	1512	30	121
5	55	1	2
232	1567	31	123
0.784	0.189	0.189	0.784
44.8	31.1	31.1	161.5
42.3	50.1	28.3	35.6

East	West	North	South
932	932	932	932
23	23	23	23
857	857	857	857
52	52	52	52
0.765	0.765	0.765	0.765
161.5	161.5	161.5	161.5
41.7	41.7	41.7	41.7
71.1	71.1	71.1	71.1
42.6	42.6	42.6	42.6
14.7	14.7	14.7	14.7

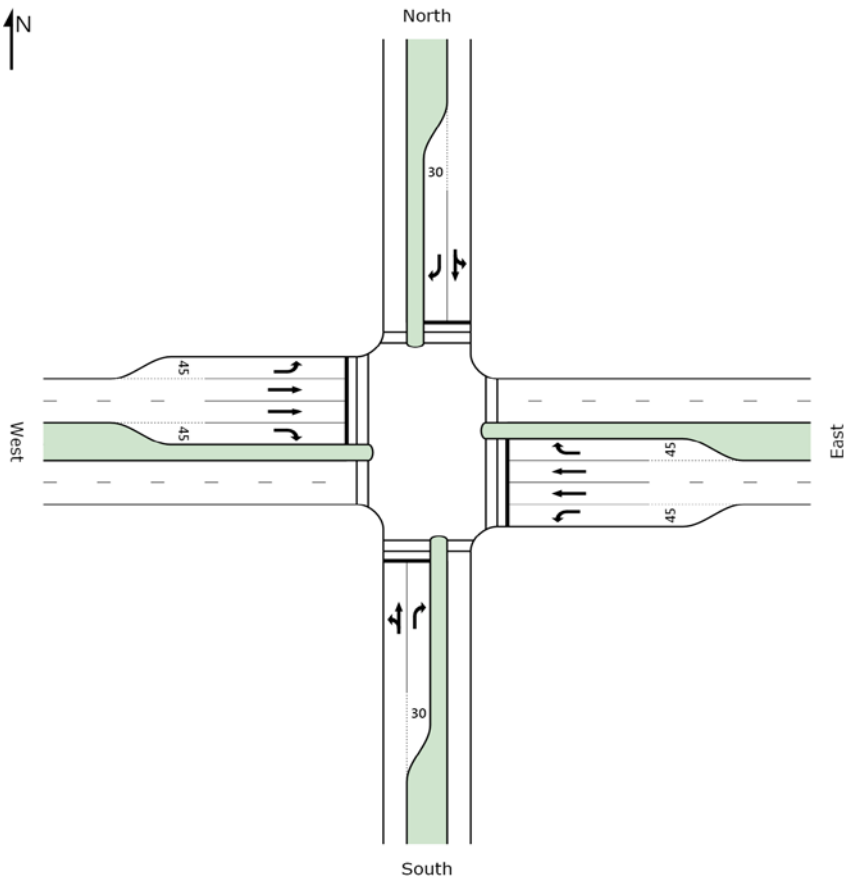
App	R	T	L
App	R	T	L
App	R	T	L
App	R	T	L

*Output Volumes

IN-53-13 (Type I - 6) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-13 pm]



Phase	Grn	Total	%
A	28	34	28%
B1	21	27	23%
C	16	22	18%
D1	6	12	10%
D3	19	25	21%
Cycle		120	sec

North

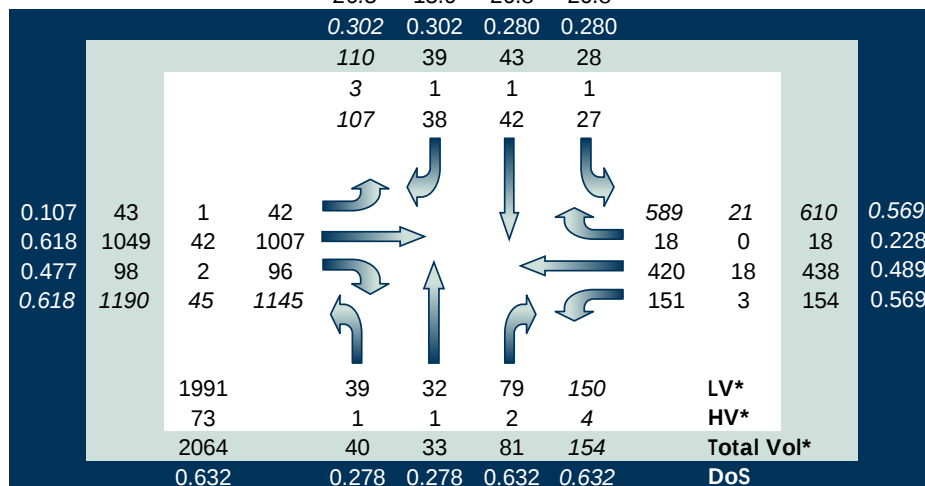
App	R	T	L
52.6	52.5	49.8	57
26.8	13.9	26.8	26.8
0.302	0.302	0.280	0.280

West

L	14.7	6	0.107	43	1	42
T	23.2	142.4	0.618	1049	42	1007
R	45.3	32.5	0.477	98	2	96
App	24.7	142.4	0.618	1190	45	1145

East

App	589	21	610	0.569	75.9	40.2
R	18	0	18	0.228	7.8	70.7
T	420	18	438	0.489	75.9	43.1
L	151	3	154	0.569	38.3	28.4



Intersection

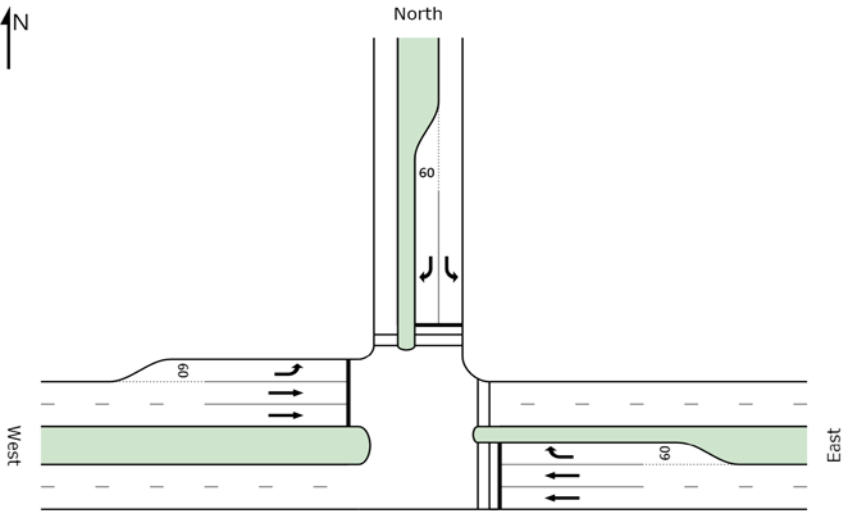
South

*Output Volumes

IN-53-14 (Type I - 6a) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-14 pm]



Phase	Grn	Total	%
A	40	46	38%
B	56	62	52%
C	6	12	10%

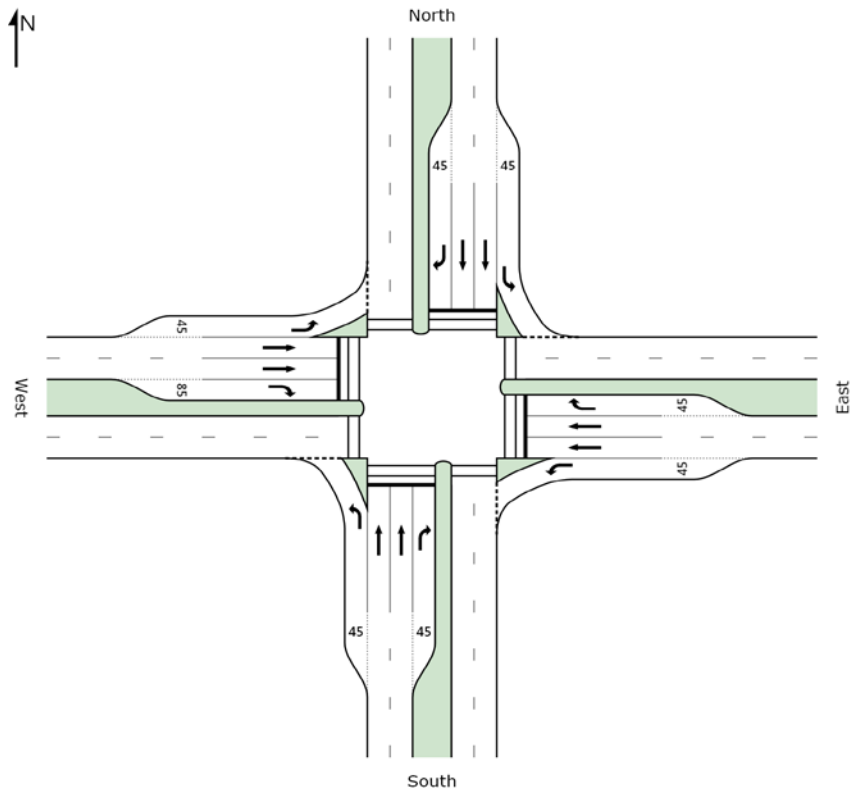
North													
App													
R													
T													
L													
0.865													
358													
7													
351													
320													
13													
333													
0.432													
29.4													
24.4													
App													
R													
T													
L													
0.000													
0													
0													
0.000													
1157													
42													
1115													
1786													
0													
0													
0													
0													
LV*													
62													
0													
0													
HV*													
1848													
0													
0													
0													
Total Vol*													
DoS													
157.2													
0													
0													
0													
95th %ile Back of Queue (m)													
Average Delay (sec)													
Intersection													
L													
T													
R													
App													

*Output Volumes

IN-53-15 (Type I - 3) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-15 pm]



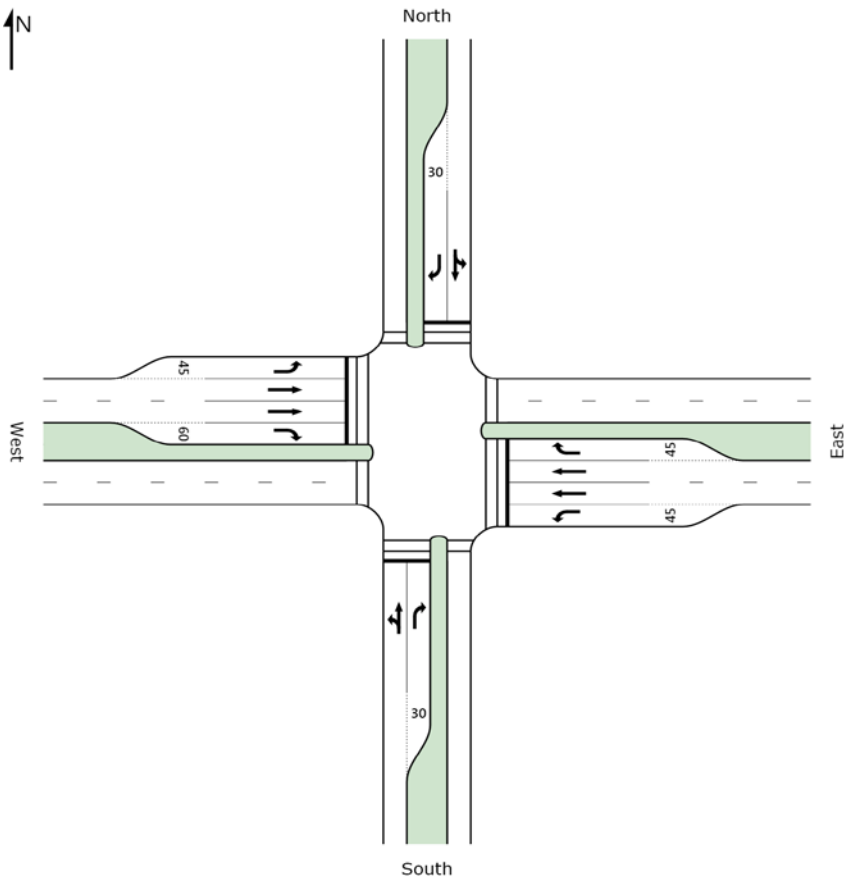
Phase	Grn	Total	%
A	15	21	18%
B1	8	14	12%
B3	0	2	2%
C	22	28	23%
D1	29	35	29%
D3	14	20	17%
Cycle		120	sec

												North															
																D1				29		35		29%			
																D3				14		20		17%			
																Cycle						120		sec			
												App				R				T				L			
												45.7				71.4				49.9				10.9			
												110.7				42.9				110.7				13.5			
												0.732				0.732				0.726				0.279			
												790				95				558				137			
												31				4				22				5			
												759				91				536				132			

IN-53-16 (Type I - 6) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-16 am]



Phase	Grn	Total	%
A	18	24	20%
B1	6	12	10%
B3	0	6	5%
C	53	59	49%
D1	13	19	16%
Cycle		120	sec

North

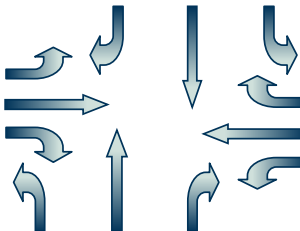
App	R	T	L
21.1	23.1	18.8	26.1
68.9	22	68.9	68.9
0.490	0.490	0.312	0.312

398	114	226	58
8	2	5	1
390	112	221	57

West

L	40.2	15.7	0.241
T	47.8	10.5	0.104
R	64.4	39.3	0.556
App	53.5	39.3	0.556

52	1	51
60	2	58
95	2	93
207	5	202



East

349	13	362	0.536
34	1	35	0.205
297	12	309	0.536
18	0	18	0.088

1389	183	242	23	448
35	4	5	0	9
1424	187	247	23	457

LV*
HV*
Total Vol*

*Output Volumes

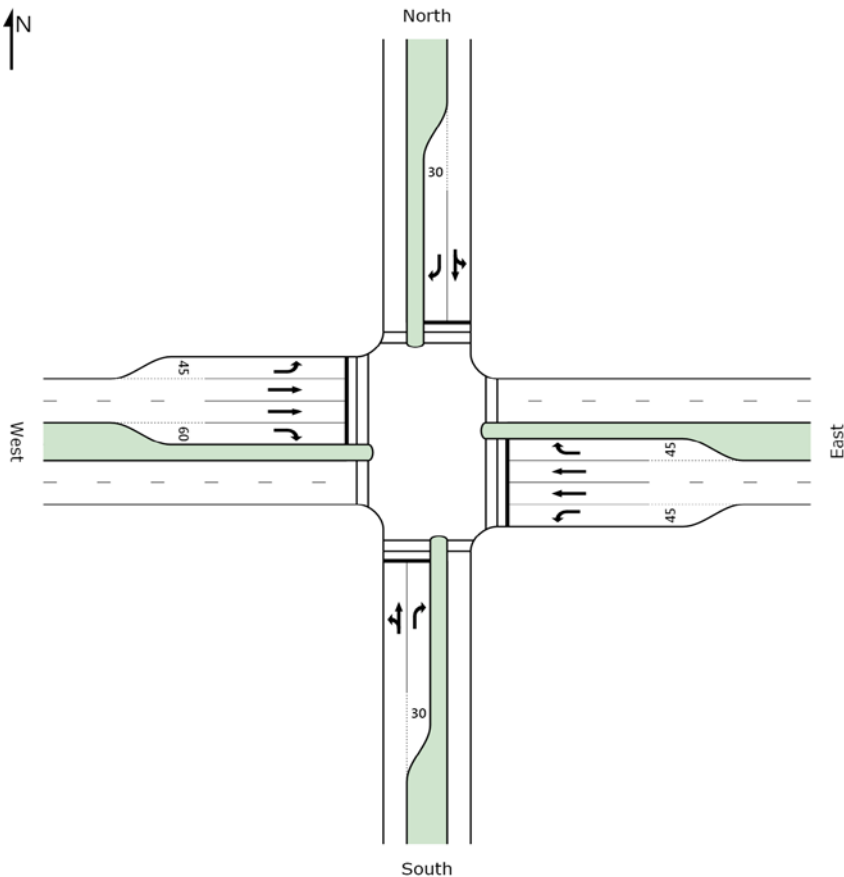
0.556	0.555	0.555	0.083	0.555
130.5	130.5	130.5	4.3	130.5
36	32.5	25.2	20	27.9
Intersection	L	T	R	App

South

IN-53-16 (Type I - 6) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-16 pm]



Phase	Grn	Total	%
A	12	18	15%
B1	6	12	10%
B3	0	1	1%
C	31	37	31%
D1	24	30	25%
D3	16	22	18%
Cycle		120	sec

North

App	R	T	L
42.5	41.4	41.6	48.9
121.2	27.8	121.2	121.2
0.655	0.492	0.655	0.655

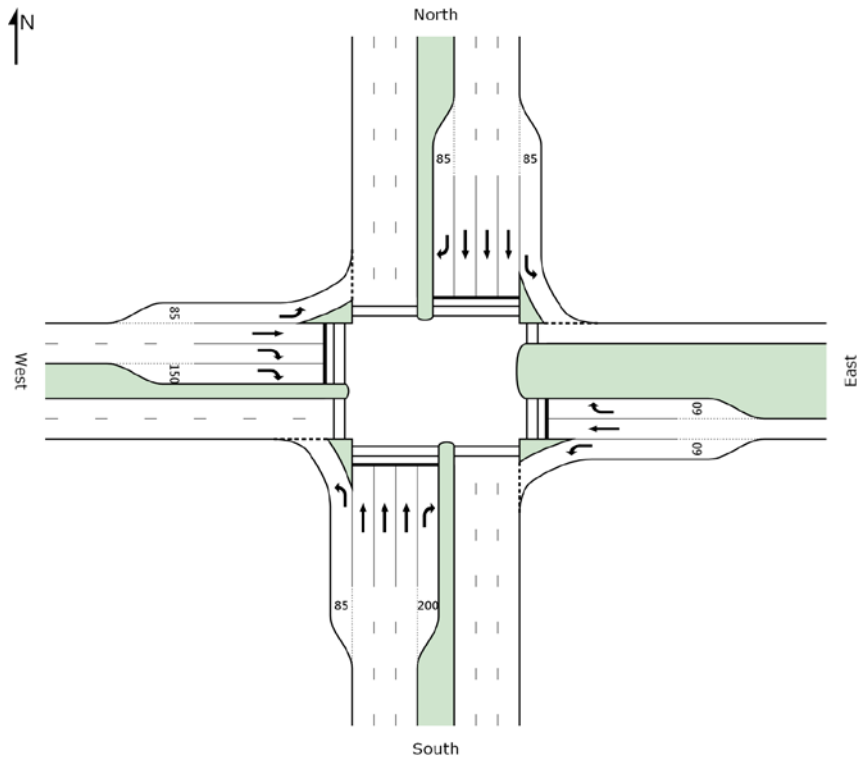
West										East									
L	42.9	62.8	0.770	187	4	183					200	6	206	0.345	23.3	53.2	App		
T	36.5	55	0.335	365	15	350					65	1	66	0.345	23.3	50.9	R		
R	43.9	84.1	0.787	242	5	237					104	4	108	0.281	21.3	55.5	T		
App	40.3	84.1	0.787	794	24	770					31	1	32	0.168	11	50.1	L		
				1773		137	230		26	393	LV*								
				47		3	5		1	9	HV*								
				1820		140	235		27	402	Total Vol*								
				0.800		0.800	0.800		0.146	0.800	DoS								
				155.5		155.5	155.5		7.8	155.5	95th %ile Back of Queue (m)								
				44.3		55.1	47.8		38.3	49.7	Average Delay (sec)								
				Intersection		L	T	R	App										

*Output Volumes

IN-53-17 (Type I - 1b) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-53.sip[IN-53-17 pm]



Phase	Grn	Total	%
A	18	24	20%
B1	6	12	10%
B2	28	34	28%
C	32	38	32%
D1	6	12	10%
Cycle		120	sec

North														D1				6	12	10%	
														Cycle					120	sec	

InterSIDRA

(v1.4) 05-Sep-12

Project No: CG130783
Project Name: Clyde IN-54

SIDRA File: N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip

Error Checking: No errors found

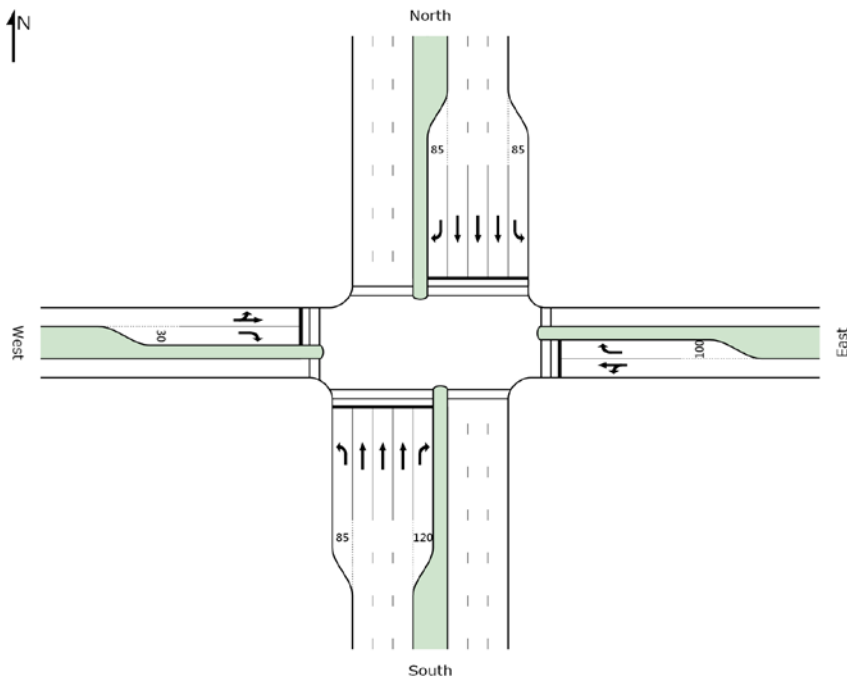
Site Summary

No	Link	Site Name	Intersection Title	Intersection Type	DoS	Cycle	Max Q	Notes
01		IN-54-01 am	IN-54-01 (Type I - 5)□ AM Peak - Ultimate Conditions	Signals	0.897	120	246.3	
02		IN-54-01 pm	IN-54-01 (Type I - 5)□ PM Peak - Ultimate Conditions	Signals	0.959	120	312	
03		IN-54-02 am	IN-54-02 (Type I - 6)□ AM Peak - Ultimate Conditions	Signals	0.778	120	105.9	
04		IN-54-02 pm	IN-54-02 (Type I - 6)□ AM Peak - Ultimate Conditions	Signals	0.778	120	105.9	
05		IN-54-03 am	IN-54-03 (Type I - 5)□ AM Peak - Ultimate Conditions	Signals	0.868	120	188.5	
06		IN-54-03 pm	IN-54-03 (Type I - 5)□ PM Peak - Ultimate Conditions	Signals	0.901	120	237.7	
07		IN-54-04 am	IN-54-04 (Type I - 1)□ AM Peak - Ultimate Conditions	Signals	0.971	120	236.7	
08		IN-54-04 pm	IN-54-04 (Type I - 1)□ PM Peak - Ultimate Conditions	Signals	0.974	120	291.9	
09		IN-54-05 am	IN-54-05 (Type I - 5)□ AM Peak - Ultimate Conditions	Signals	0.721	120	145.3	
10		IN-54-05 pm	IN-54-05 (Type I - 5)□ PM Peak - Ultimate Conditions	Signals	0.780	120	185.9	
11		IN-54-06 am	IN-54-06 (Type I - 2)□ AM Peak - Ultimate Conditions	Signals	0.920	120	151.7	
12		IN-54-06 pm	IN-54-06 (Type I - 2)□ PM Peak - Ultimate Conditions	Signals	0.863	120	163.7	
13		IN-54-07 am	IN-54-07 (Type I - 5)□ AM Peak - Ultimate Conditions	Signals	0.639	120	83.6	
14		IN-54-07 pm	IN-54-07 (Type I - 5)□ PM Peak - Ultimate Conditions	Signals	0.875	120	101.2	
15		IN-54-08 am	IN-54-08 (Type I - 1a)□ AM Peak - Ultimate Conditions	Signals	0.823	120	158.3	
16		IN-54-08 pm	IN-54-08 (Type I - 1a)□ PM Peak - Ultimate Conditions	Signals	0.855	120	186.5	
17		IN-54-09 am	IN-54-09 (Type I - 5a)□ AM Peak - Ultimate Conditions	Signals	0.452	120	70.7	
18		IN-54-09 pm	IN-54-09 (Type I - 5a)□ PM Peak - Ultimate Conditions	Signals	0.588	120	127.2	
19		IN-54-11 am	IN-54-11 (Type I - 6)□ AM Peak - Ultimate Conditions	Signals	0.827	120	101.8	
20		IN-54-11 pm	IN-54-11 (Type I - 6)□ PM Peak - Ultimate Conditions	Signals	0.827	120	120.6	
21		IN-54-12 am	IN-54-12 (Type I - 5)□ AM Peak - Ultimate Conditions	Signals	0.756	120	123.6	
22		IN-54-12 pm	IN-54-12 (Type I - 5)□ PM Peak - Ultimate Conditions	Signals	0.848	120	136	
23		IN-54-13 am	IN-54-13 (Type I - 6a)□ AM Peak - Ultimate Conditions	Signals	0.882	120	163.2	
24		IN-54-13 pm	IN-54-13 (Type I - 6a)□ PM Peak - Ultimate Conditions	Signals	0.854	120	141.8	
25		IN-54-14 am	IN-54-14 (Type I - 6a)□ AM Peak - Ultimate Conditions	Signals	0.639	120	71	
26		IN-54-14 pm	IN-54-14 (Type I - 6a)□ PM Peak - Ultimate Conditions	Signals	0.832	120	114.2	
27		IN-54-15 am	IN-54-15 (Type I - 2)□ AM Peak - Ultimate Conditions	Signals	0.555	120	92.8	
28		IN-54-15 pm	IN-54-15 (Type I - 2)□ PM Peak - Ultimate Conditions	Signals	0.881	120	141	
29		IN-54-16 am	IN-54-16 (Type I - 6a)□ AM Peak - Ultimate Conditions	Signals	0.548	120	48.1	
30		IN-54-16 pm	IN-54-16 (Type I - 6a)□ AM Peak - Ultimate Conditions	Signals	0.828	120	76.2	
31		IN-54-17 am	IN-54-17 (Type I - 6a)□ AM Peak - Ultimate Conditions	Signals	0.416	120	36.2	
32		IN-54-17 pm	IN-54-17 (Type I - 6a)□ PM Peak - Ultimate Conditions	Signals	0.586	120	65.3	
33		IN-54-18 am	IN-54-18 (Type I - 3)□ AM Peak - Ultimate Conditions	Signals	0.788	120	108.6	
34		IN-54-18 pm	IN-54-18 (Type I - 3)□ PM Peak - Ultimate Conditions	Signals	0.475	120	57	
35		IN-54-19 am	IN-54-19 (Type I - 6)□ AM Peak - Ultimate Conditions	Signals	0.580	120	82.6	
36		IN-54-19 pm	IN-54-19 (Type I - 6)□ PM Peak - Ultimate Conditions	Signals	0.875	120	128.3	
37		IN-54-20 am	IN-54-20 (Type I - 2)□ AM Peak - Ultimate Conditions	Signals	0.575	120	84.4	
38		IN-54-20 pm	IN-54-20 (Type I - 2)□ PM Peak - Ultimate Conditions	Signals	0.824	120	140.2	
39								
40								

IN-54-01 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-01 am]



Phase	Grn	Total	%
A	38	44	37%
B1	10	16	13%
B3	8	14	12%
C	18	24	20%
D1	16	22	18%
Cycle		120	sec

North

App	R	T	L
51.4	77.6	51.2	23.5
246.3	87.8	246.3	31.3
0.897	0.876	0.897	0.306

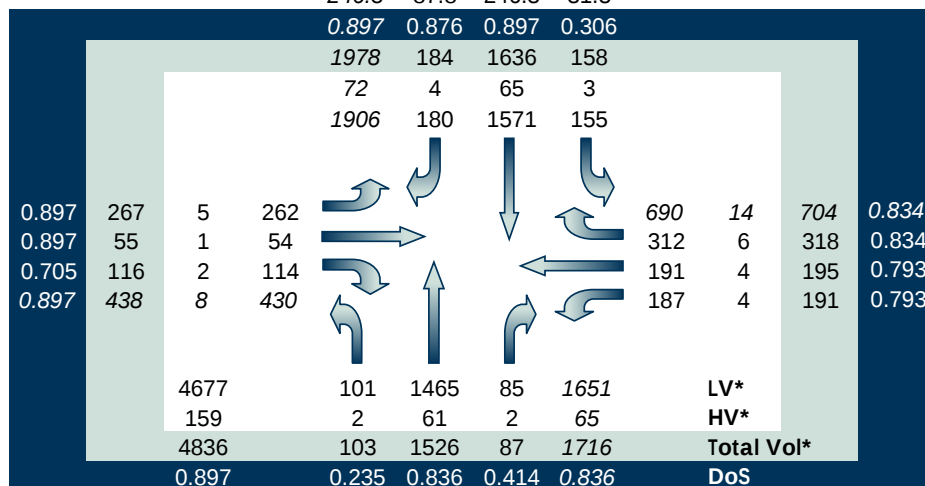
1978	184	1636	158
72	4	65	3
1906	180	1571	155

West

L	72.8	158.9	0.897	267	5	262
T	65	158.9	0.897	55	1	54
R	41.5	34.8	0.705	116	2	114
App	63.5	158.9	0.897	438	8	430

East

690	14	704	0.834	157.7	48.4	App
312	6	318	0.834	114	46.6	R
191	4	195	0.793	157.7	45.9	T
187	4	191	0.793	157.7	53.7	L



Intersection

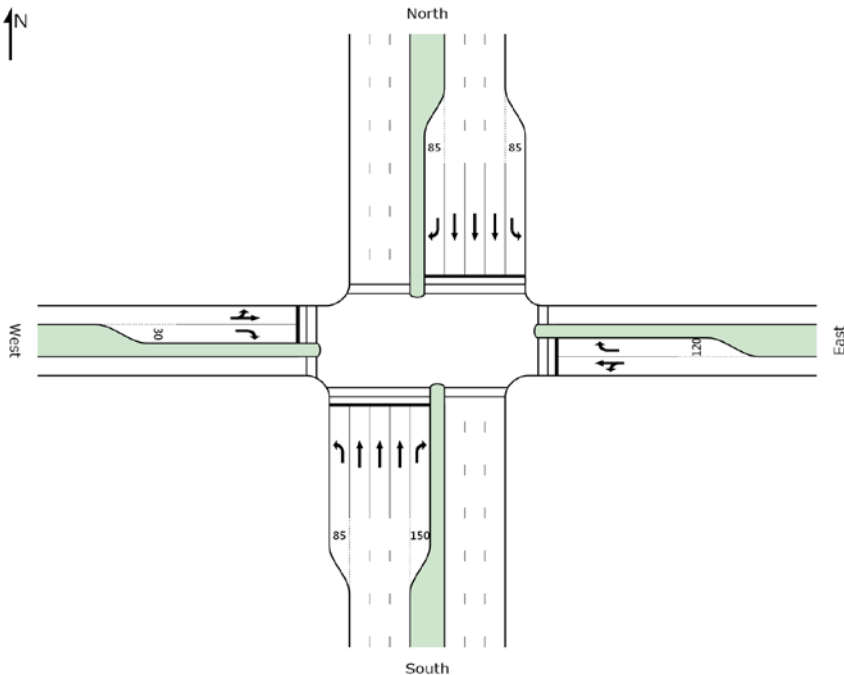
South

*Output Volumes

IN-54-03 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-03 am]



Phase	Grn	Total	%
A	29	35	29%
B1	21	27	23%
B3	10	16	13%
C	18	24	20%
D1	8	14	12%
D2	0	4	3%
Cycle		120	sec

North

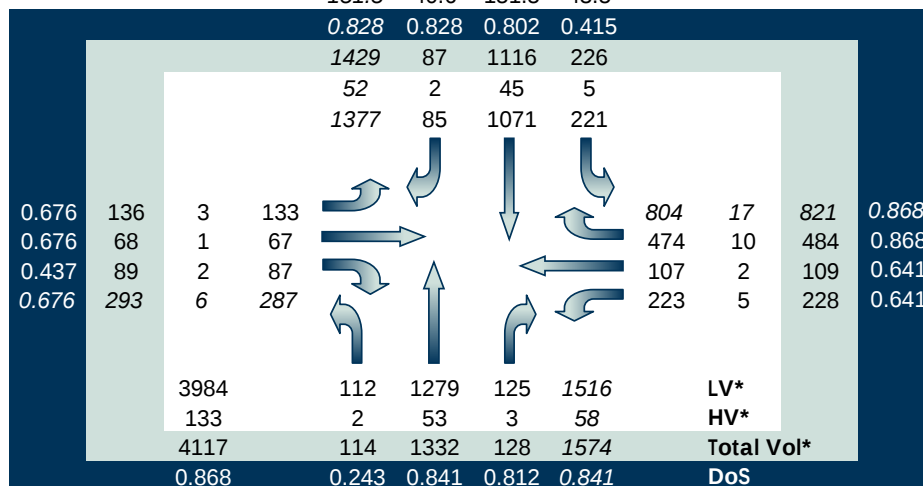
App	R	T	L
46.7	78.9	49.1	22.1
151.5	40.6	151.5	43.5
0.828	0.828	0.802	0.415
1429	87	1116	226

West

L	58.1	81.7	0.676	136	3	133
T	50.3	81.7	0.676	68	1	67
R	28.2	19.7	0.437	89	2	87
App	47.2	81.7	0.676	293	6	287

East

804	17	821	0.868	188.5	46	App
474	10	484	0.868	188.5	48.3	R
107	2	109	0.641	120.4	37.4	T
223	5	228	0.641	120.4	45.1	L



*Output Volumes

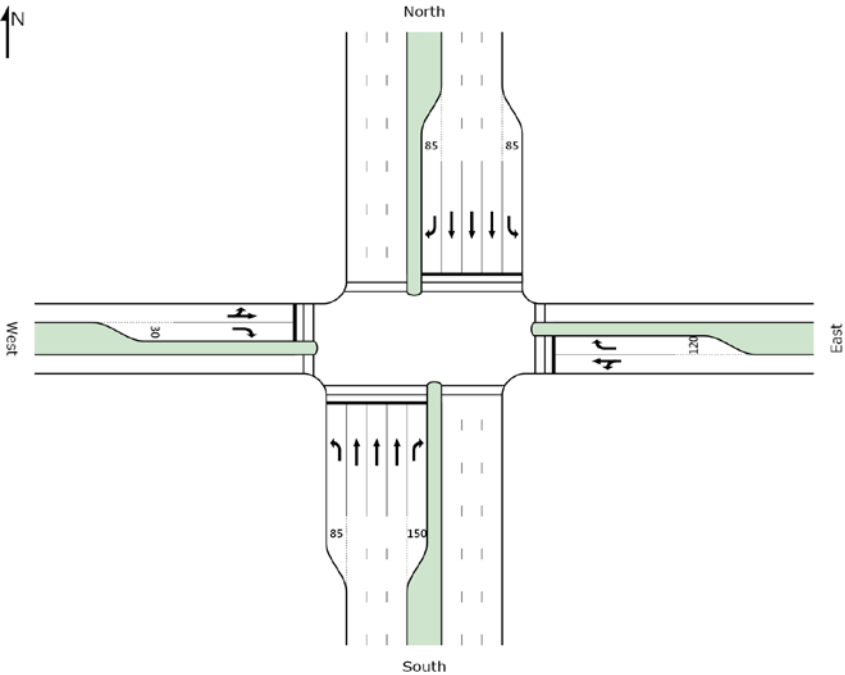
Intersection

South

IN-54-03 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-03 pm]



Phase	Grn	Total	%
A	21	27	23%
B1	6	12	10%
B3	4	10	8%
C	18	24	20%
D1	6	12	10%
D2	29	35	29%
Cycle		120	sec

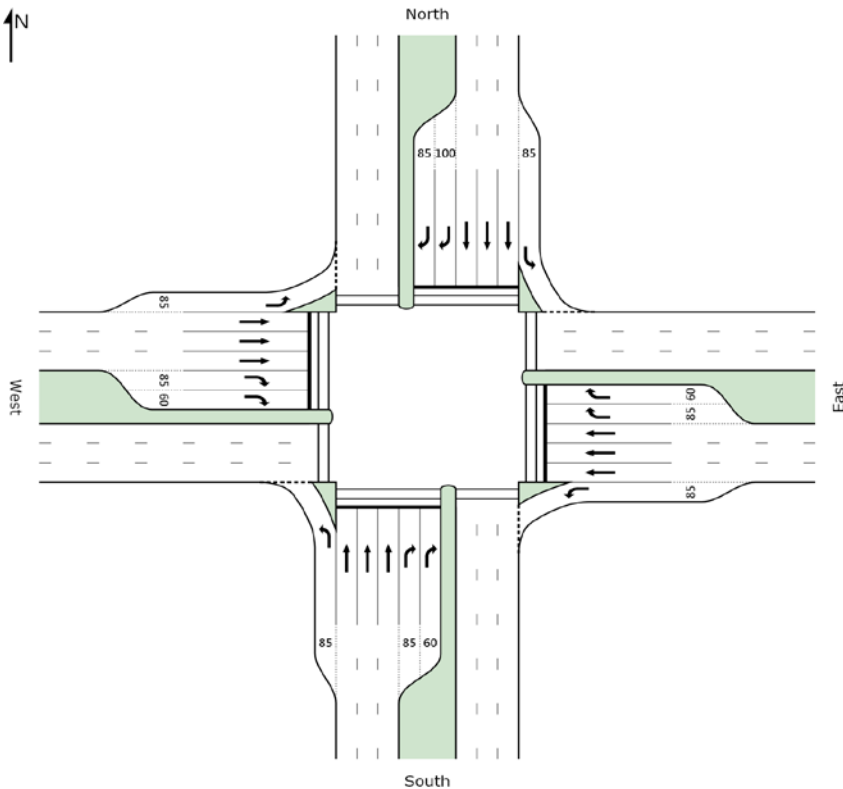
North														
App														
R														
T														
L														
0.899														
0.330														
0.899														
0.092														
968														
38														
930														
610														
12														
622														
0.884														
237.7														
55.1														
App														
R														
T														
L														
0.884														
237.7														
59.4														
L														
3566														
307														
1107														
475														
1889														
LV*														
114														
6														
46														
10														
62														
HV*														
3680														
313														
1153														
485														
1951														
Total Vol*														
DoS														
0.901														
0.607														
0.429														
0.901														
0.901														
237.7														
70.2														
82.9														
237.6														
237.6														
95th %ile Back of Queue (m)														
Average Delay (sec)														
44.4														
25.3														
18.5														
67.8														
31.8														
App														
L														
T														
R														
App														
South														

*Output Volumes

IN-54-04 (Type I - 1) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-04 am]



Phase	Grn	Total	%
A	27	33	28%
B1	10	16	13%
B3	20	26	22%
C	18	24	20%
D1	15	21	18%
Cycle		120	sec

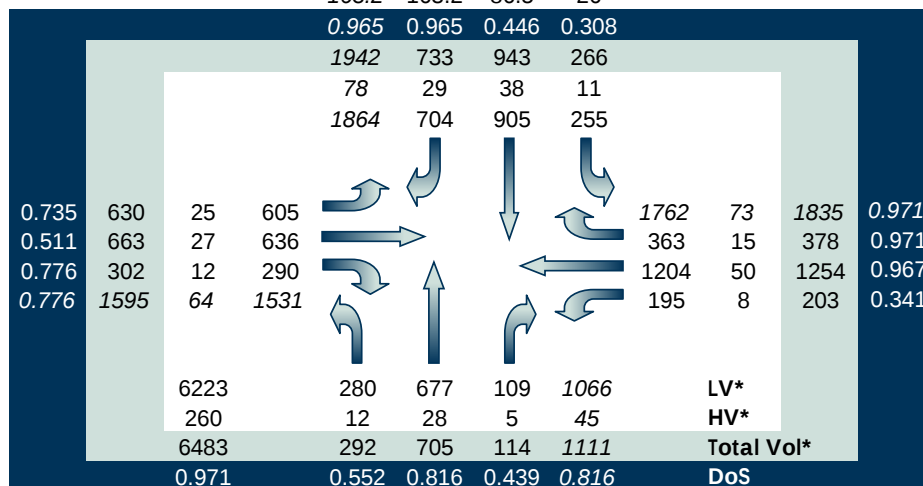
North

App	R	T	L
37.5	57.4	28.6	14
163.2	163.2	86.5	26
0.965	0.965	0.446	0.308

West

East

L	19.8	106.5	0.735	630	25	605	1762	73	1835	0.971	236.7	78	App
T	44.2	78.1	0.511	663	27	636	363	15	378	0.971	113.6	98.7	R
R	71.8	67.7	0.776	302	12	290	1204	50	1254	0.967	236.7	81.8	T
App	39.8	106.5	0.776	1595	64	1531	195	8	203	0.341	28.6	16.6	L



Intersection

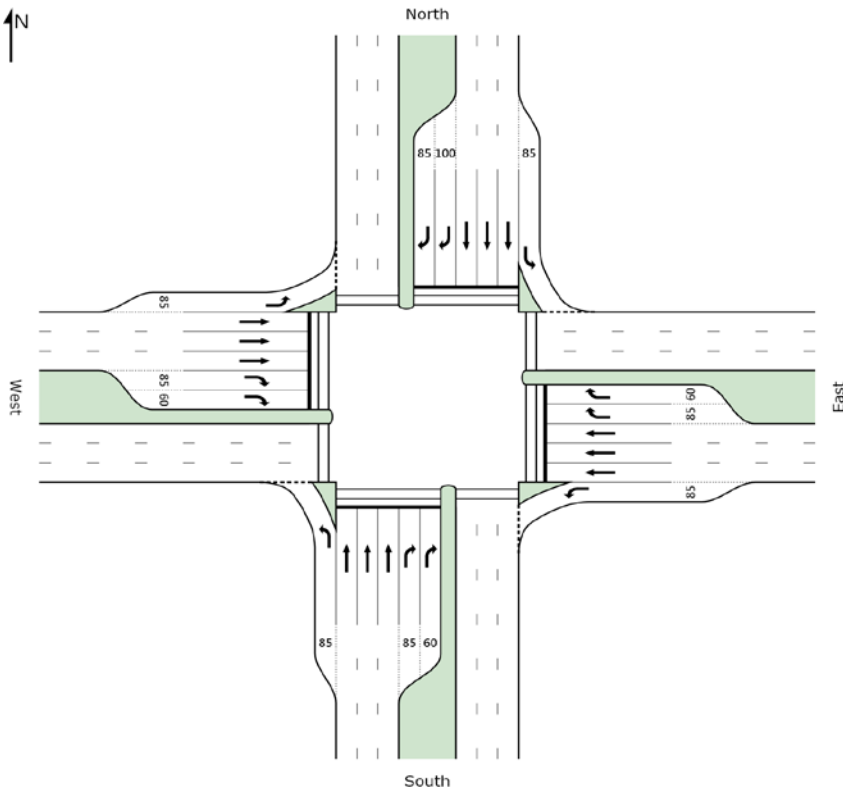
South

*Output Volumes

IN-54-04 (Type I - 1) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-04 pm]



Phase	Grn	Total	%
A	25	31	26%
B1	17	23	19%
B3	6	12	10%
C	24	30	25%
D1	11	17	14%
D3	1	7	6%
Cycle		120	sec

North

App	R	T	L
45.1	66.1	36.6	24.6
163.2	163.2	90.4	77.4
0.949	0.949	0.495	0.505

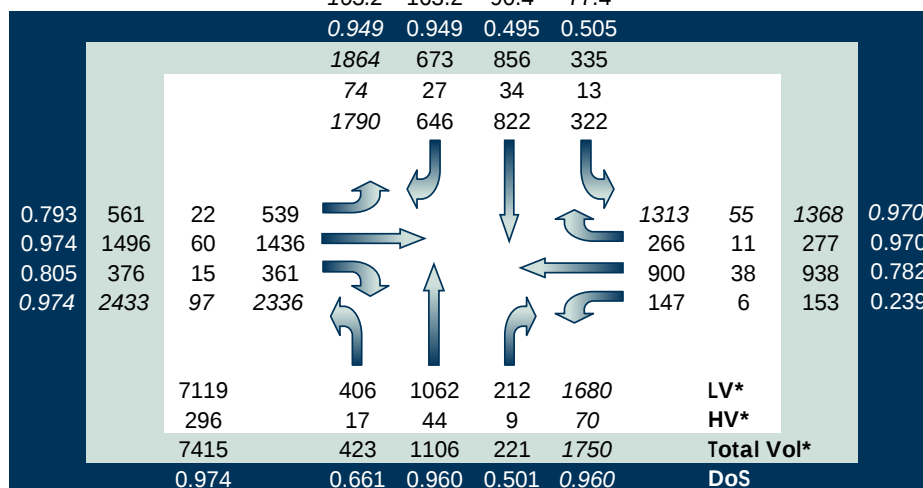
1864	673	856	335
74	27	34	13
1790	646	822	322

West

L	27.1	114.6	0.793	561	22	539
T	83.8	291.9	0.974	1496	60	1436
R	71.1	84.9	0.805	376	15	361
App	68.7	291.9	0.974	2433	97	2336

East

1313	55	1368	0.970	128.1	58.8	App
266	11	277	0.970	81.3	107.8	R
900	38	938	0.782	128.1	51.1	T
147	6	153	0.239	21.8	17.4	L



*Output Volumes

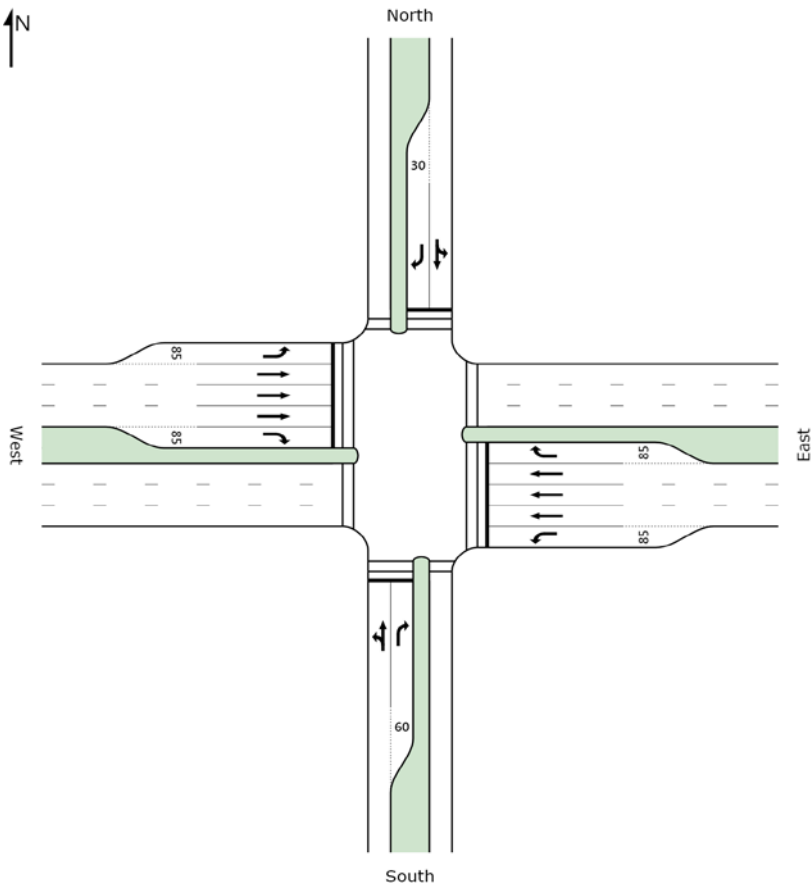
Intersection

South

IN-54-05 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-05 am]



Phase	Grn	Total	%
A	46	52	43%
B1	15	21	18%
C	18	24	20%
D1	16	22	18%
D3	0	1	1%
Cycle		120	sec

North

App	R	T	L
49.1	45.6	47.5	55.3
45.4	36	45.4	45.4
0.721	0.721	0.409	0.409

230	109	48	73
4	2	1	1
226	107	47	72

West

L	22.7	13.8
T	24.7	63.7
R	64.9	60.3
App	30.4	63.7

0.143	74	1	73	1635	62	1697
0.346	781	31	750	71	1	72
0.654	146	3	143	1363	57	1420
0.654	1001	35	966	201	4	205
3190	181	43	139	363	LV*	
109	4	1	3	8	HV*	
3299	185	44	142	371	Total Vol*	
0.721	0.654	0.654	0.423	0.654	DoS	

East

0.643	145.3	30.3	App
0.343	28.1	62.4	R
0.643	145.3	29.6	T
0.402	43	24.5	L

*Output Volumes

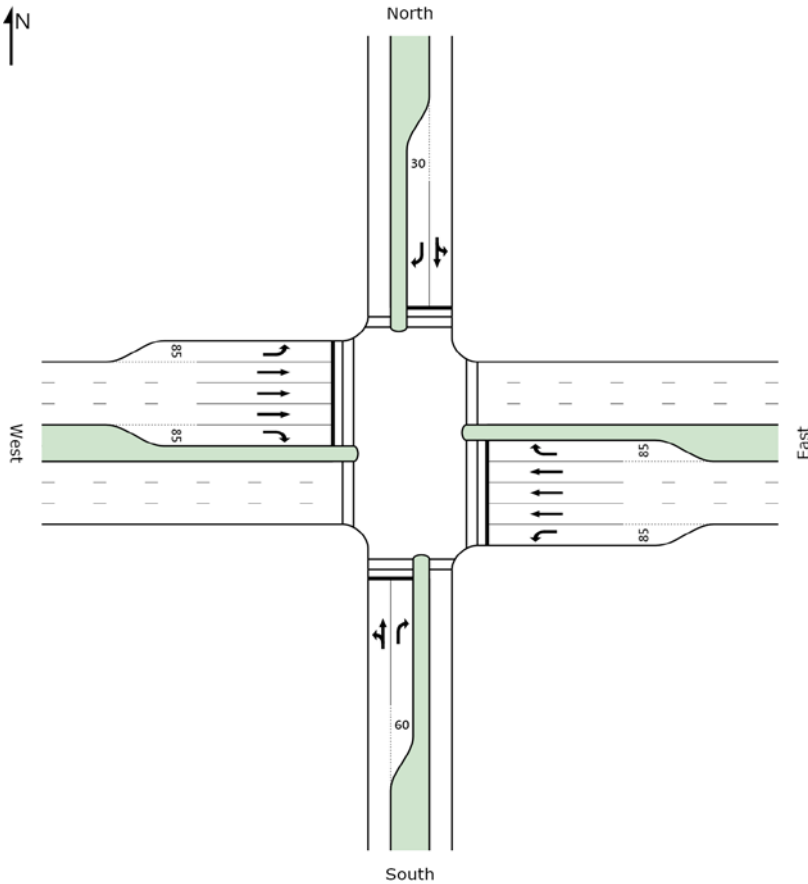
145.3	88.4	88.4	45.8	88.4
33.7	54.1	46.3	42.2	48.7
Intersection	L	T	R	App

South

IN-54-05 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-05 pm]



Phase	Grn	Total	%
A	33	39	33%
B1	18	24	20%
B2	0	5	4%
C	18	24	20%
D1	10	16	13%
D3	6	12	10%
Cycle		120	sec

North

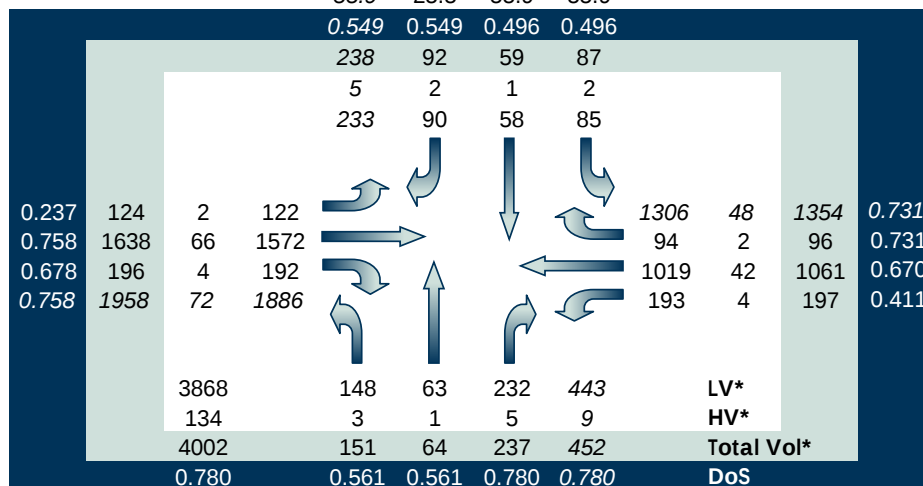
App	R	T	L
46.4	35.8	48.4	56.2
55.9	25.5	55.9	55.9
0.549	0.549	0.496	0.496

West

L	22.7	23.5	0.237	124	2	122
T	32.4	185.9	0.758	1638	66	1572
R	61.2	79.1	0.678	196	4	192
App	34.6	185.9	0.758	1958	72	1886

East

1306	48	1354	0.731	126.4	41.9	App
94	2	96	0.731	42.6	73.4	R
1019	42	1061	0.670	126.4	41.8	T
193	4	197	0.411	45	27.3	L



*Output Volumes

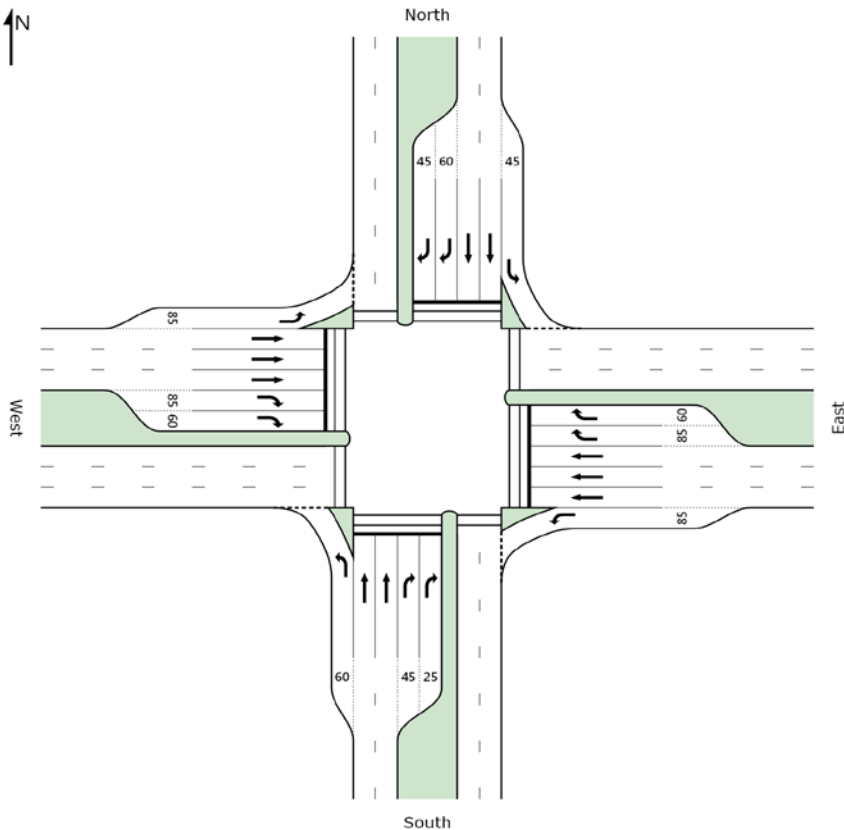
Intersection

South

IN-54-06 (Type I - 2) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-06 am]



Phase	Grn	Total	%
A	26	32	27%
B1	19	25	21%
B3	21	27	23%
C	7	13	11%
D1	17	23	19%
D3			
Cycle		120	sec

North

App	R	T	L
46.5	61.7	20.7	10.3
89.8	89.8	19.3	1.2
0.829	0.829	0.121	0.032

West		East	
L	11.4	19.8	0.323
T	48.7	60	0.480
R	60.5	43.4	0.446
App	40.4	60	0.480

292	12	280	966	40	1006	0.920	151.7	64.1	App
484	19	465	28	1	29	0.059	5.3	56.6	R
220	9	211	891	37	928	0.920	151.7	67.1	T
996	40	956	47	2	49	0.055	2.7	11.1	L

3240	372	352	30	754	LV*
136	16	15	1	32	HV*
3376	388	367	31	786	Total Vol*
0.920	0.819	0.441	0.171	0.819	DoS
151.7	97.9	63.9	6.6	97.9	95th %ile Back of Queue (m)
47.5	25.1	44.2	70.6	35.8	Average Delay (sec)

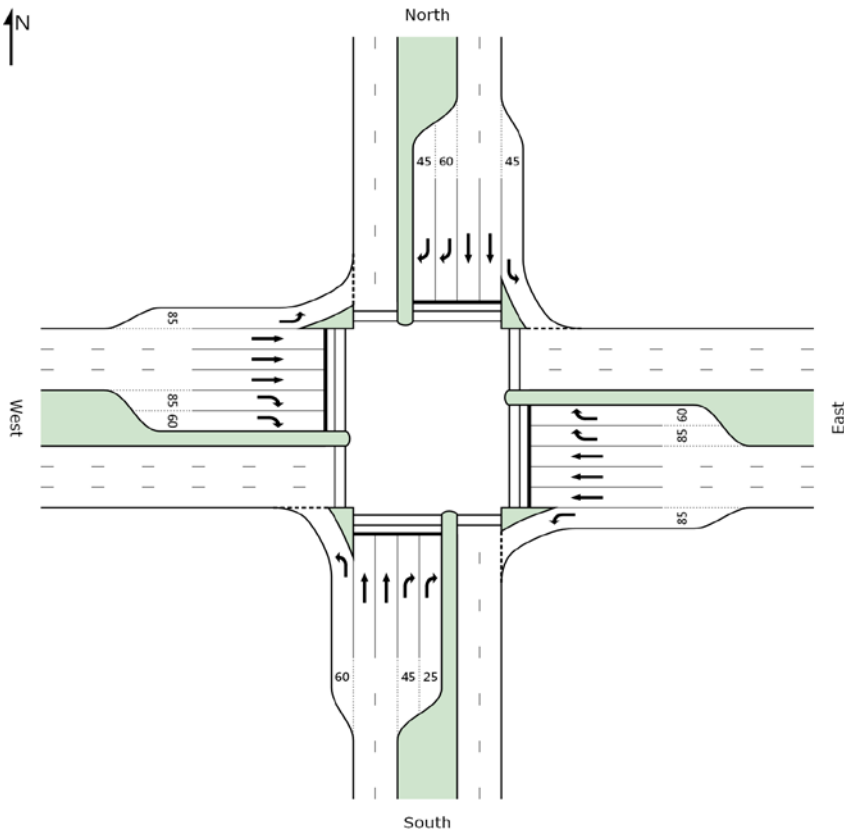
Intersection	L	T	R	App
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*Output Volumes

IN-54-06 (Type I - 2) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-06 pm]



Phase	Grn	Total	%
A	18	24	20%
B1	21	27	23%
C	28	34	28%
D1	8	14	12%
D3	15	21	18%
Cycle		120	sec

North

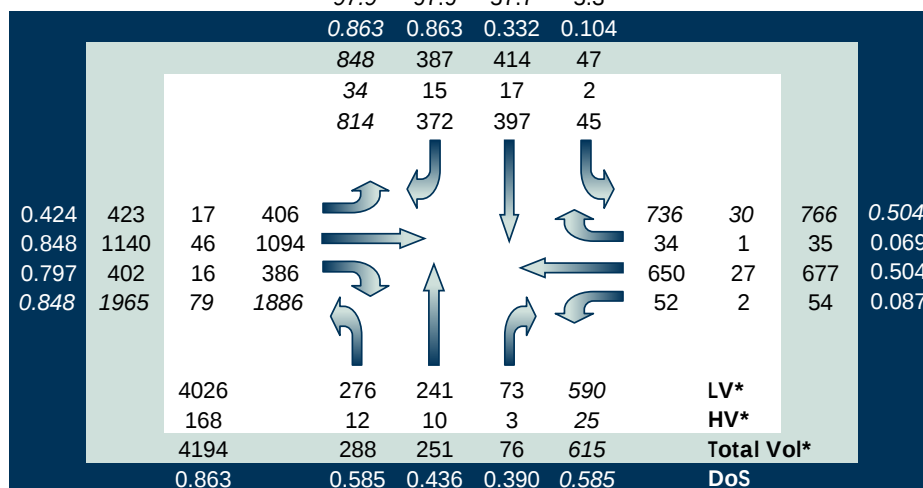
App	R	T	L
46.3	66	31.7	13.6
97.9	97.9	57.7	5.3
0.863	0.863	0.332	0.104

West

L	11.2	27.4	0.424
T	53	163.7	0.848
R	66.8	96.6	0.797
App	46.8	163.7	0.848

East

736	30	766	0.504	78.7	41.8	App
34	1	35	0.069	6.7	54.7	R
650	27	677	0.504	78.7	43.3	T
52	2	54	0.087	6	14.3	L



Intersection

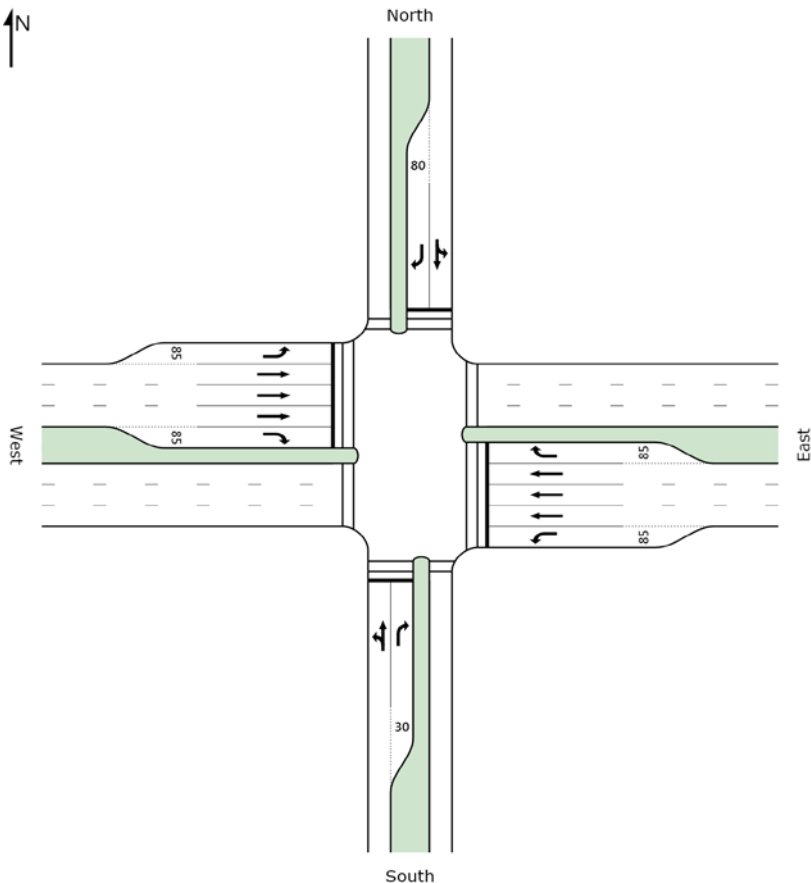
South

*Output Volumes

IN-54-07 (Type I - 5) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-07 am]



Phase	Grn	Total	%
A	22	28	23%
B1	50	56	47%
Cycle	18	24	20%
D1	6	12	10%
Cycle		120	sec

North

App	R	T	L
38.6	33.3	48.6	56.4
66.8	66.8	37.7	37.7
0.585	0.585	0.354	0.354

335	235	68	32
7	5	1	1
328	230	67	31

West

L	18.7	22.4
T	46.4	41
R	75.8	20.6
App	41.6	41

142	3	139	721	28	749
349	14	335	18	0	18
46	1	45	628	26	654
537	18	519	75	2	77
1866	119	66	113	298	LV*
58	2	1	2	5	HV*
1924	121	67	115	303	Total Vol*
0.639	0.633	0.633	0.639	0.639	DoS

East

0.619	83.6	46.8	App
0.228	7.8	73.4	R
0.619	83.6	49.4	T
0.129	11.6	18.3	L

*Output Volumes

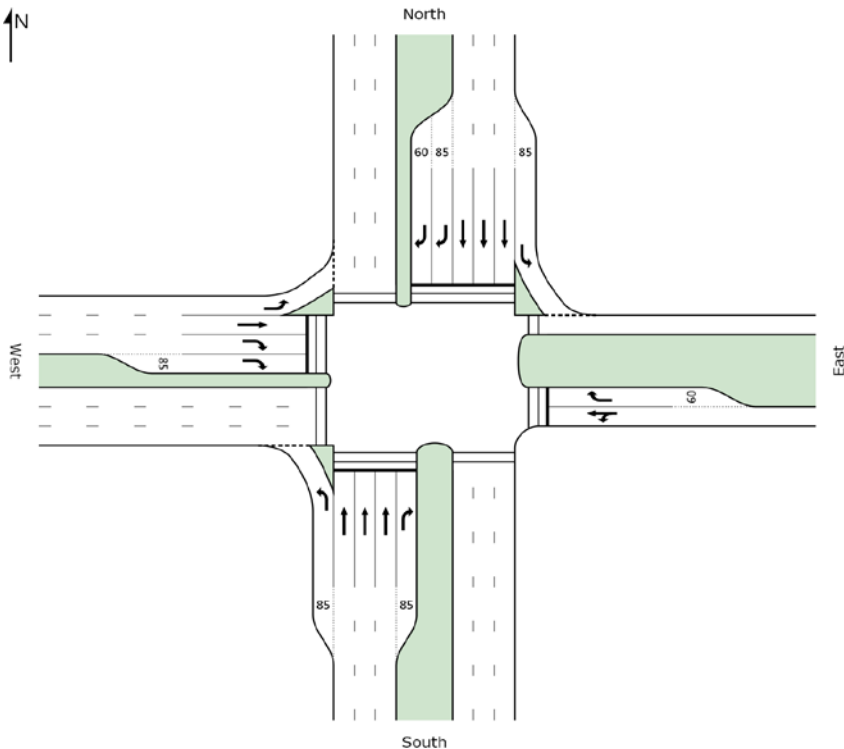
83.6	74.2	74.2	31.4	74.2
43.9	57.7	49.9	33.1	46.7
Intersection	L	T	R	App

South

IN-54-08 (Type I - 1a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-08 am]



Phase	Grn	Total	%
A	18	24	20%
B1	7	13	11%
B3	0	5	4%
C	29	35	29%
D1	6	12	10%
D2	25	31	26%
Cycle		120	sec

North

App	R	T	L
43	75	40.3	12.2
117.2	56.3	117.2	14.1
0.790	0.790	0.623	0.160

1432	246	1017	169
54	10	41	3
1378	236	976	166

West

L	20.5	35.4
T	58.7	83.4
R	77.1	20.7
App	46.6	83.4

East

642	14	656	0.823	134.8	38.7	App
224	5	229	0.823	90.6	54.3	R
322	7	329	0.564	134.8	28.5	T
96	2	98	0.564	134.8	36.3	L

3825	167	1097	61	1325	LV*
138	7	46	1	54	HV*
3963	174	1143	62	1379	Total Vol*
0.823	0.266	0.821	0.674	0.821	DoS
158.3	21.4	158.3	27.8	158.3	95th %ile Back of Queue (m)
44.2	16.1	50.3	75.6	47.1	Average Delay (sec)

Intersection

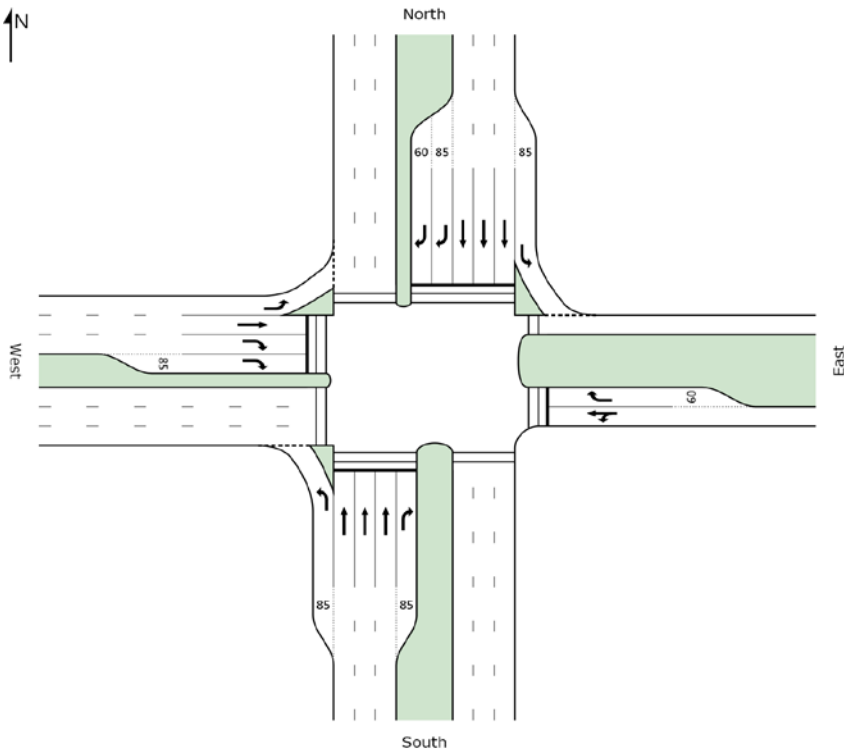
South

*Output Volumes

IN-54-08 (Type I - 1a) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-08 pm]



Phase	Grn	Total	%
A	34	40	33%
B1	10	16	13%
B3	0	2	2%
C	32	38	32%
D1	15	21	18%
D2	0	3	3%
Cycle		120	sec

North

App	R	T	L
46.6	79.1	44.8	17.8
168	63.4	168	35.5

0.854	0.854	0.791	0.289
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1779	266	1291	222
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67	11	52	4
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1712	255	1239	218
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West

L	23.5	63.3	0.301	293	12	281
T	51.9	186.5	0.817	450	9	441
R	67.2	49.5	0.606	236	9	227
App	47.1	186.5	0.817	979	30	949

East

550	11	561	0.855	127.8	51.1	App
198	4	202	0.855	93.8	71.4	R
264	5	269	0.628	127.8	37.7	T
88	2	90	0.628	127.8	45.5	L

4683	130	1236	106	1472	LV*
167	5	52	2	59	HV*
4850	135	1288	108	1531	Total Vol*

0.855	0.194	0.838	0.822	0.838	DoS
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186.5	15.4	179.4	49.8	179.4	95th %ile Back of Queue (m)
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47.8	15.6	49.4	77	48.4	Average Delay (sec)
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Intersection	L	T	R	App	
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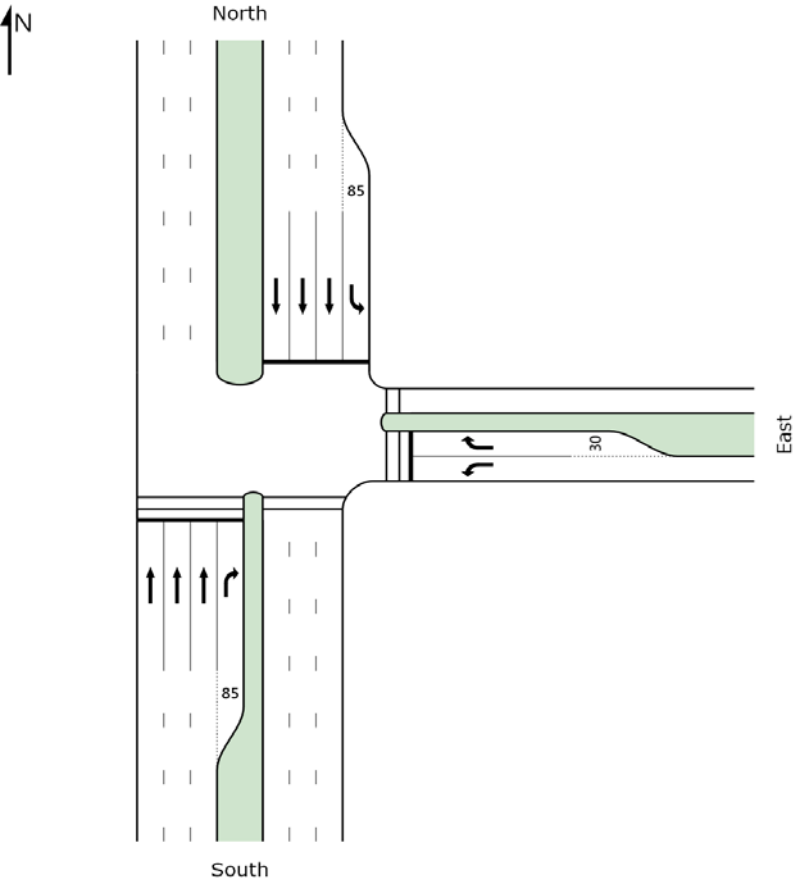
South

*Output Volumes

IN-54-09 (Type I - 5a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-09 am]



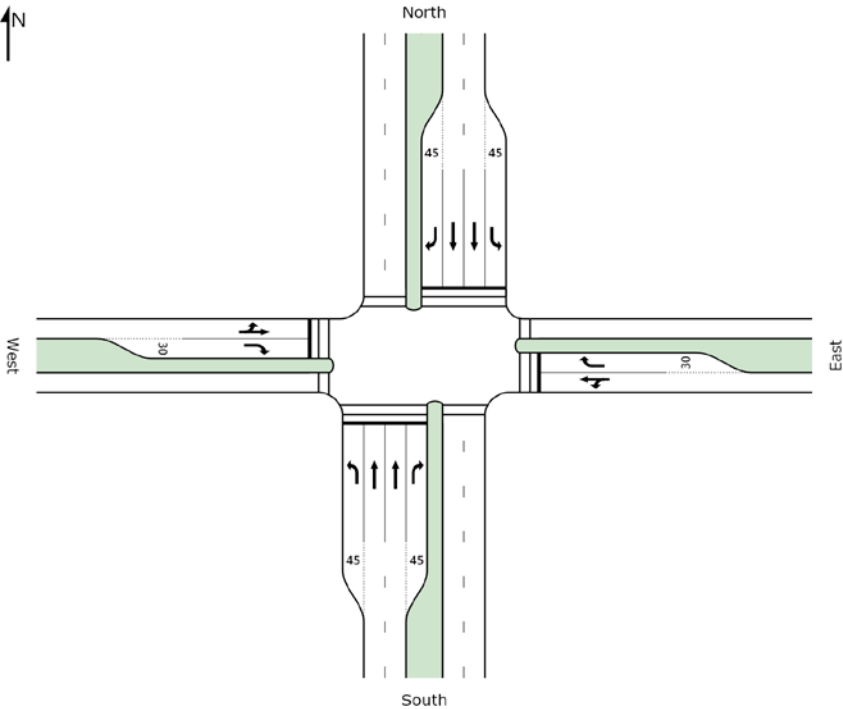
Phase	Grn	Total	%
A	69	75	63%
B	16	22	18%
C	17	23	19%

North										Cycle				120 sec		

IN-54-11 (Type I - 6) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-11 am]



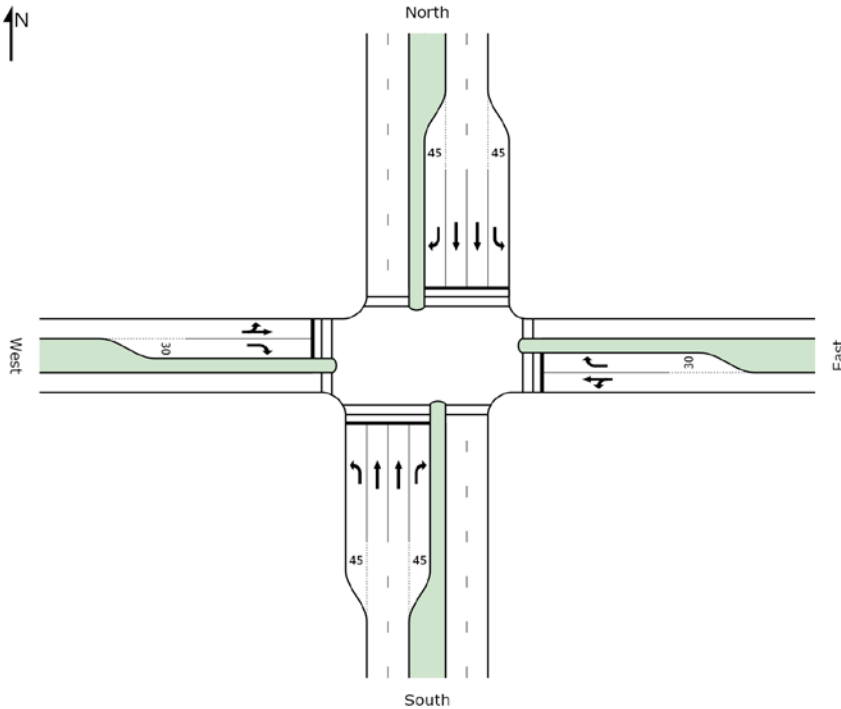
Phase	Grn	Total	%
A	19	25	21%
B1	55	61	51%
C	16	22	18%
D1	6	12	10%
Cycle	120 sec		

														North																											
														App				R				T				L															
														44.5				70.4				51.6				15															
														70.5				6.4				70.5				14.5															
														0.594				0.190				0.594				0.250															
														476				15				361				100															
														16				0				14				2															
														460				15				347				98															
																																									
														350				8				358				0.827				49.8				35.3				App			
														221				5				226				0.827				49				24.9				R			
														27				1				28				0.451				49.8				47.2				T			
														102				2				104				0.451				49.8				54.5				L			
														1448				66				460				47				573				LV*							
														46				1				19				1				21				HV*							
														1494				67				479				48				594				Total Vol*							
														0.827				0.167				0.788				0.609				0.788				DoS							
														101.8				9.5				101.8				21.5				101.8				95th %ile Back of Queue (m)							
														45				14.8				56				73.3				52.7				Average Delay (sec)							
														Intersection				L				T				R				App											

IN-54-11 (Type I - 6) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-11 pm]



Phase	Grn	Total	%
A	21	27	23%
B1	18	24	20%
B3	17	23	19%
C	16	22	18%
D1	6	12	10%
D2	6	12	10%
Cycle		120	sec

North

App	R	T	L
49.3	70	56.5	32
120.6	4.7	120.6	60.9
0.827	0.140	0.827	0.748

810	11	556	243
27	0	22	5
783	11	534	238

West

L	55.8	14
T	48.5	14
R	26.3	11.1
App	36.6	14

0.150	13	0	13	250	5	255
0.150	26	1	25	142	3	145
0.253	53	1	52	21	0	21
0.253	92	2	90	87	2	89
1756	44	462	127	633	LV*	
57	1	19	3	23	HV*	
1813	45	481	130	656	Total Vol*	
0.827	0.161	0.455	0.730	0.730	DoS	
120.6	10	77.6	53.9	77.6	95th %ile Back of Queue (m)	
43.3	25.5	38.8	62.5	42.6	Average Delay (sec)	

East

0.677	34.6	28.3	App
0.677	34.6	26.5	R
0.174	29.3	24.8	T
0.174	29.3	32	L

*Output Volumes

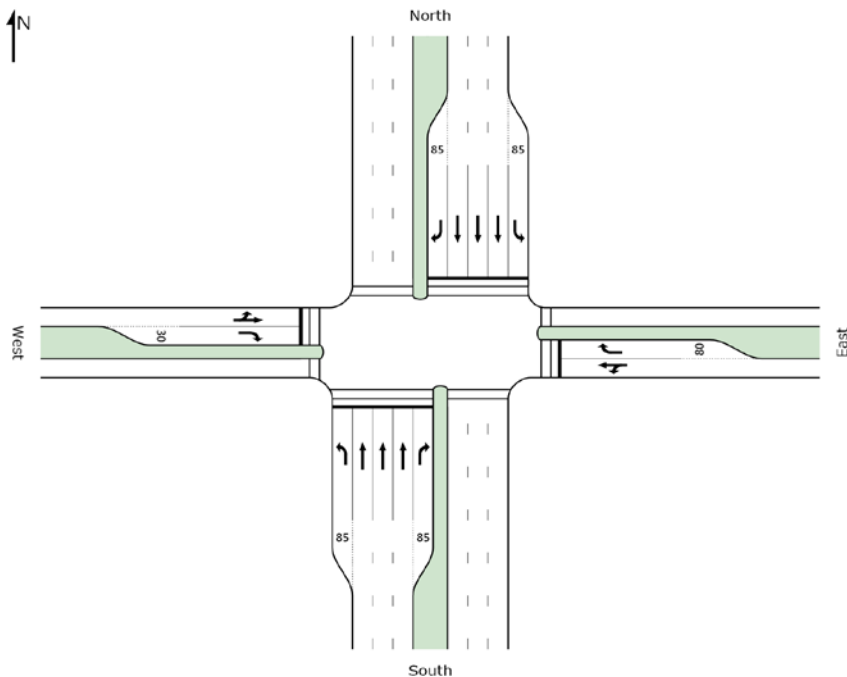
Intersection

South

IN-54-12 (Type I - 5) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-12 pm]



Phase	Grn	Total	%
A	36	42	35%
B1	6	12	10%
B3	0	5	4%
C	18	24	20%
D1	13	19	16%
D2	12	18	15%
Cycle		120	sec

North

App	R	T	L
43	66.9	39.2	49.5
136	36.7	135.4	136
0.844	0.521	0.674	0.844

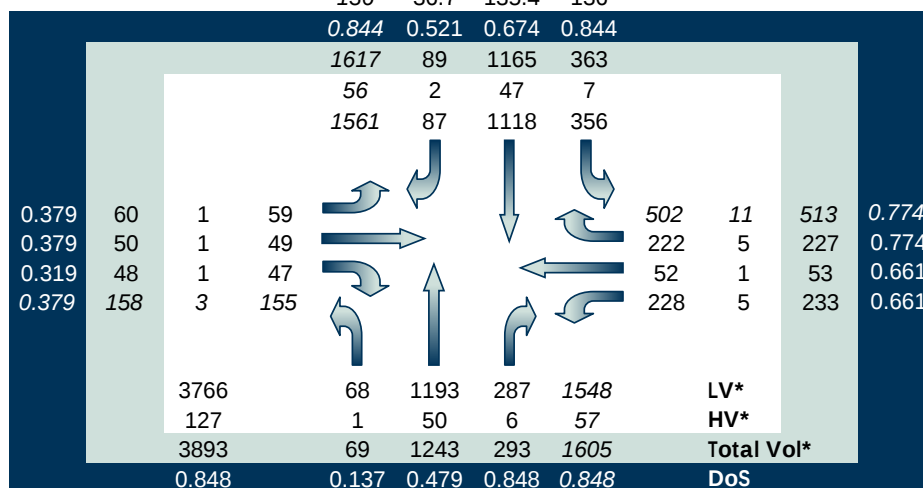
1617	89	1165	363
56	2	47	7
1561	87	1118	356

West

L	55.8	41.3	0.379
T	48	41.3	0.379
R	47.2	15.9	0.319
App	50.7	41.3	0.379

East

502	11	513	0.774
222	5	227	0.774
52	1	53	0.661
228	5	233	0.661



Intersection

South

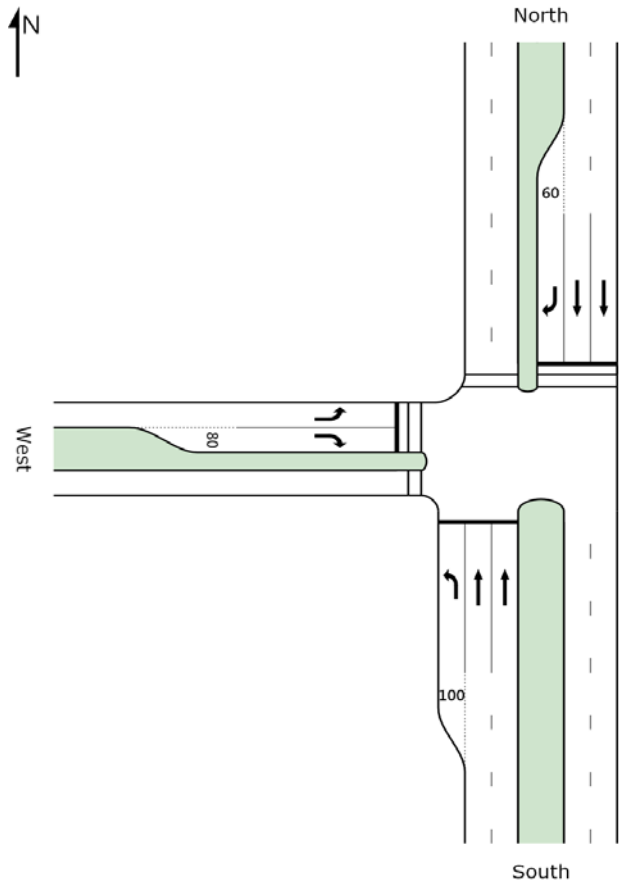
3766	68	1193	287	1548	LV*
127	1	50	6	57	HV*
3893	69	1243	293	1605	Total Vol*
0.848	0.137	0.479	0.848	0.848	DoS
136	13.3	97.5	128.4	128.4	95th %ile Back of Queue (m)
38.5	23.6	20.6	64.1	28.7	Average Delay (sec)
	L	T	R	App	

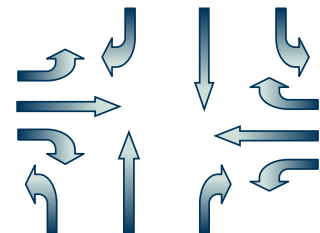
*Output Volumes

IN-54-13 (Type I - 6a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-13 am]



														Phase	Grn	Total	%		
														A	64	70	58%		
														B	15	21	18%		
														C	23	29	24%		
														Cycle	120 sec				
														North					
														App	R	T	L		
														25.2	67.8	0.9	0		
														93.2	93.2	4.2	0		
														0.857	0.857	0.121	0.000		
														567	206	361	0		
														18	4	14	0		
														549	202	347	0		
																			
														1690	466	460	0	926	LV*
														51	10	19	0	29	HV*
														1741	476	479	0	955	Total Vol*
														0.882	0.882	0.234	0.000	0.882	DoS
														163.2	163.2	34.5	0	163.2	95th %ile Back of Queue (m)
														28.6	41.6	11.2	0	26.4	Average Delay (sec)
														Intersection	L	T	R	App	
														South					
														West					
L	35.3	34	0.218	119	2	117					0	0	0	0.000	0	0	App		
T	0	0	0.000	0	0	0					0	0	0	0.000	0	0	R		
R	60.8	39.7	0.432	100	2	98					0	0	0	0.000	0	0	T		
App	46.9	39.7	0.432	219	4	215					0	0	0	0.000	0	0	L		
														East					

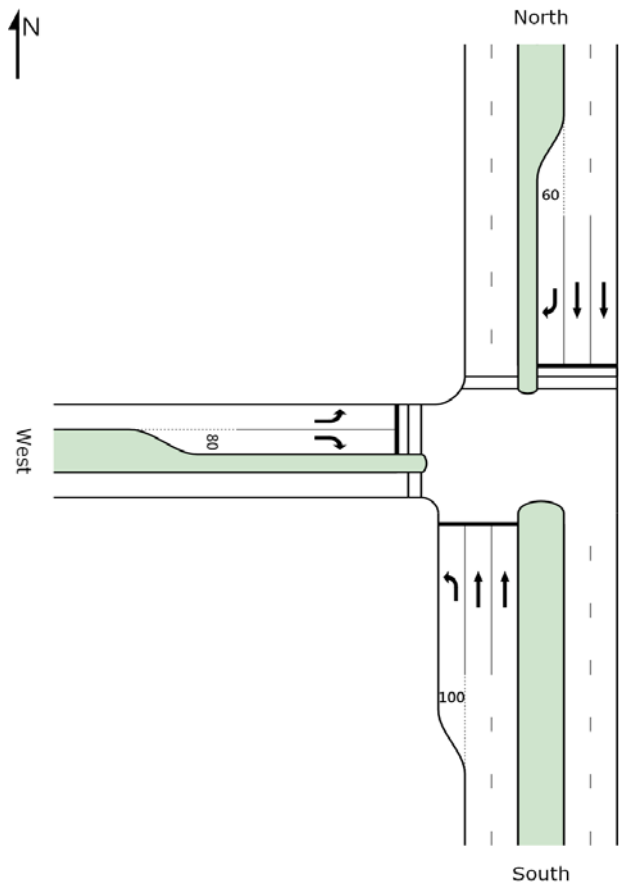
*Output Volumes

*Output Volumes

IN-54-13 (Type I - 6a) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-13 pm]



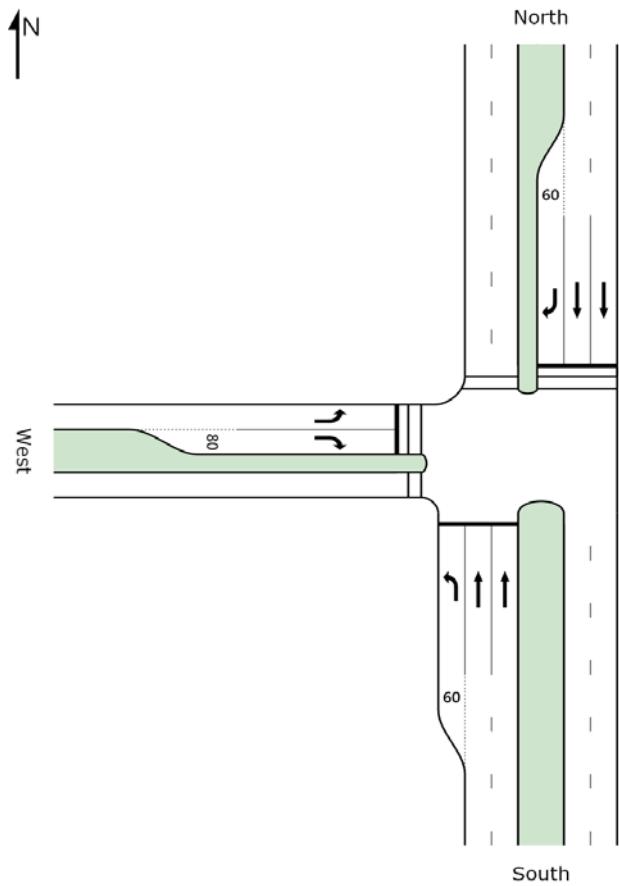
										Phase			Grn	Total	%				
										A			37	43	36%				
										B			31	37	31%				
										C			34	40	33%				
										Cycle			120 sec						
										North									
										App	R	T	L						
										20.6	59.8	4.4	0						
										96.6	96.6	20.6	0						
										0.850	0.850	0.226	0.000						
										785	229	556	0						
										27	5	22	0						
										758	224	534	0						
West																			
L	20.8	68.3	0.362	319	6	313				0	0	0	0.000	0	0	App			
T	0	0	0.000	0	0	0				0	0	0	0.000	0	0	R			
R	60	124.5	0.854	292	6	286				0	0	0	0.000	0	0	T			
App	39.5	124.5	0.854	611	12	599				0	0	0	0.000	0	0	L			
										2149	330	462	0	792	LV*				
										65	7	19	0	26	HV*				
										2214	337	481	0	818	Total Vol*				
										0.854	0.828	0.406	0.000	0.828	DoS				
										141.8	141.8	71.9	0	141.8	95th %ile Back of Queue (m)				
										34.2	55.6	34.5	0	43.2	Average Delay (sec)				
										Intersection				L	T	R	App		
														South					

*Output Volumes

IN-54-14 (Type I - 6a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-14 am]



Phase	Grn	Total	%
A	37	43	36%
B	15	21	18%
C	50	56	47%

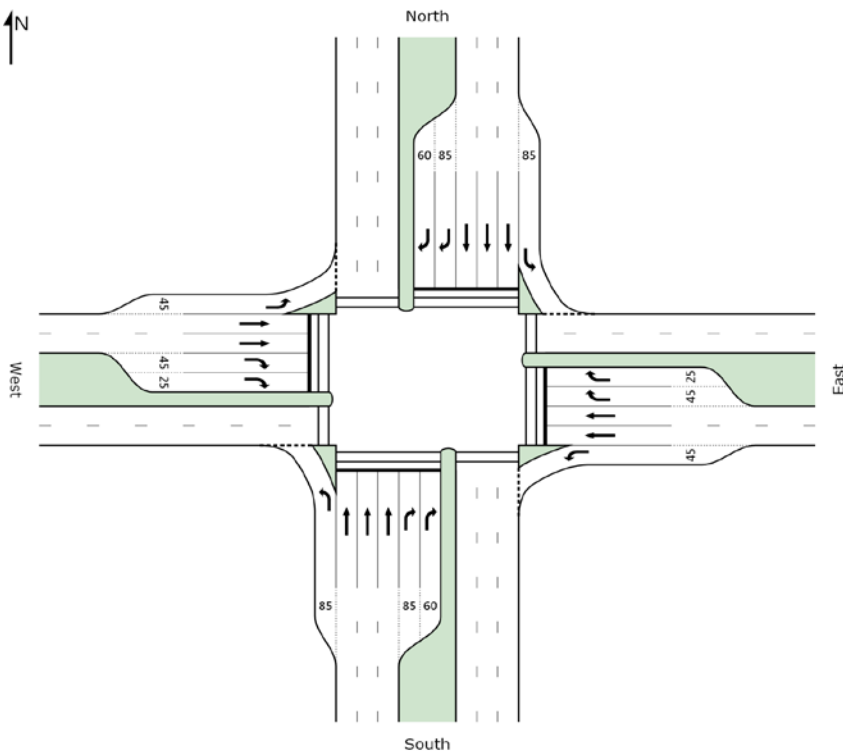
Cycle 120 sec

		North															
		App	R	T	L			App	R	T	L			App	R	T	L
		13.8	32.4	0.9	0			57.3	57.3	3.4	0			0.639	0.639	0.100	0.000
		504	206	298	0			16	4	12	0			488	202	286	0
		1330	170	457	0			42	3	19	0			1372	173	476	0
		0.639	0.629	0.402	0.000			71	56.9	71	0			28.4	42.8	34.4	0
		Intersection	L	T	R			App						1330	170	457	0
		South												42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														1330	170	457	0
														42	3	19	0
														1372	173	476	0
														0.639	0.629	0.402	0.000
														71	56.9	71	0
														28.4	42.8	34.4	0
														133			

IN-54-15 (Type I - 2) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-15 pm]



Phase	Grn	Total	%
A	18	24	20%
B1	6	12	10%
B2	0	4	3%
C	18	24	20%
D1	6	12	10%
D2	38	44	37%
Cycle		120	sec

North

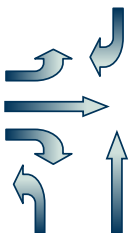
App	R	T	L
52.3	84.1	59.3	11.8
106.8	33.8	106.8	17.9
0.880	0.880	0.838	0.221

1094	137	724	233
43	5	29	9
1051	132	695	224

West

L	16.2	36.8	0.597
T	50.4	40.6	0.377
R	71.3	2.8	0.083
App	33.5	40.6	0.597

239	10	229
217	9	208
13	1	12
469	20	449



644	27	671
339	14	353
122	5	127
183	8	191

East

0.881	73.4	30.9	App
0.881	73.4	48.5	R
0.064	8.5	11.3	T
0.308	15.9	11.4	L

3249	16	890	199	1105	LV*
136	1	37	8	46	HV*
3385	17	927	207	1151	Total Vol*
0.881	0.016	0.878	0.798	0.878	DoS

141	0.6	141	48	141	95th %ile Back of Queue (m)
48.8	10.5	59.9	75.7	62	Average Delay (sec)

Intersection	L	T	R	App
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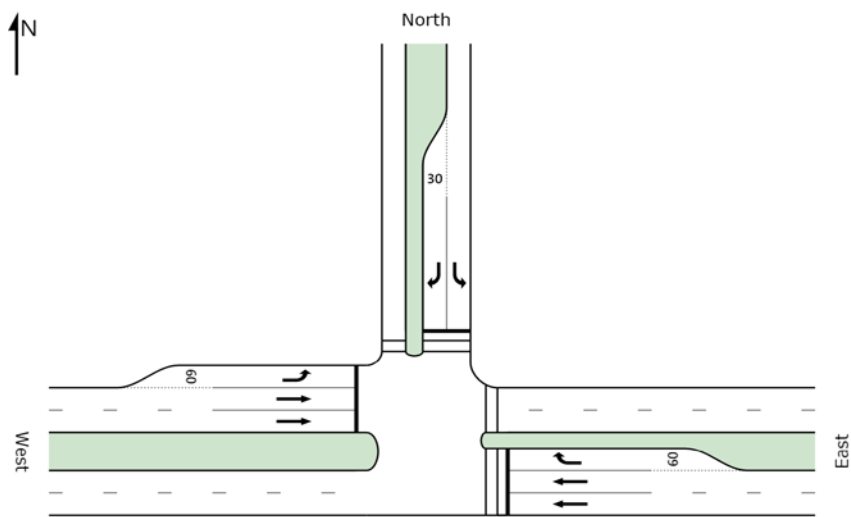
South

*Output Volumes

IN-54-16 (Type I - 6a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-16 am]

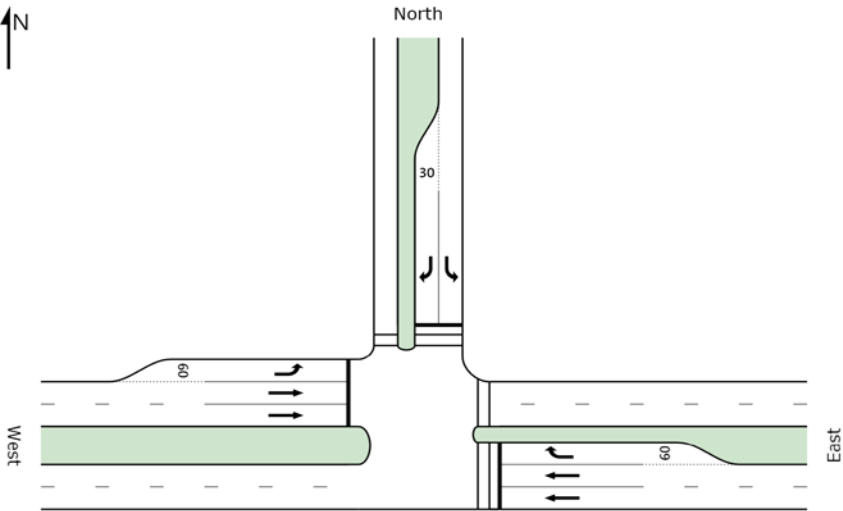


														Phase	Grn	Total	%
														A	20	26	22%
														B	47	53	44%
														C	35	41	34%
														Cycle		120	sec

IN-54-16 (Type I - 6a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-16 p.m]

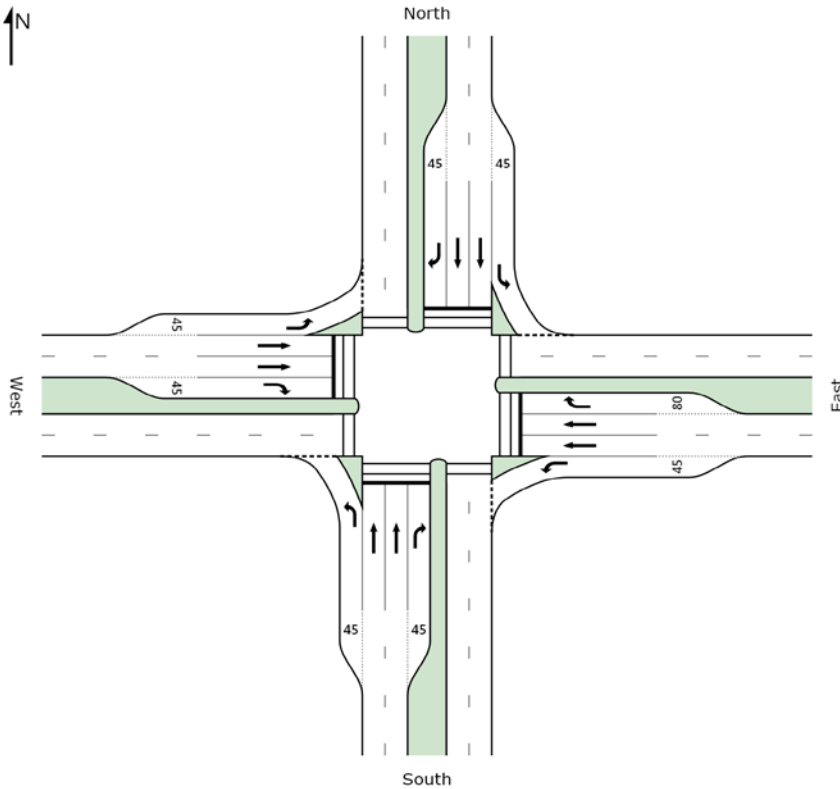


														Phase	Grn	Total	%
														A	15	21	18%
														B	70	76	63%
														C	17	23	19%
														Cycle		120	sec

IN-54-18 (Type I - 3) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-18 am]



Phase	Grn	Total	%
A	15	21	18%
B1	6	12	10%
C	15	21	18%
D1	60	66	55%

Cycle 120 sec

North

App	R	T	L
43.5	74.6	54.1	8.7
45.6	23.5	45.6	5.8
0.655	0.655	0.481	0.142

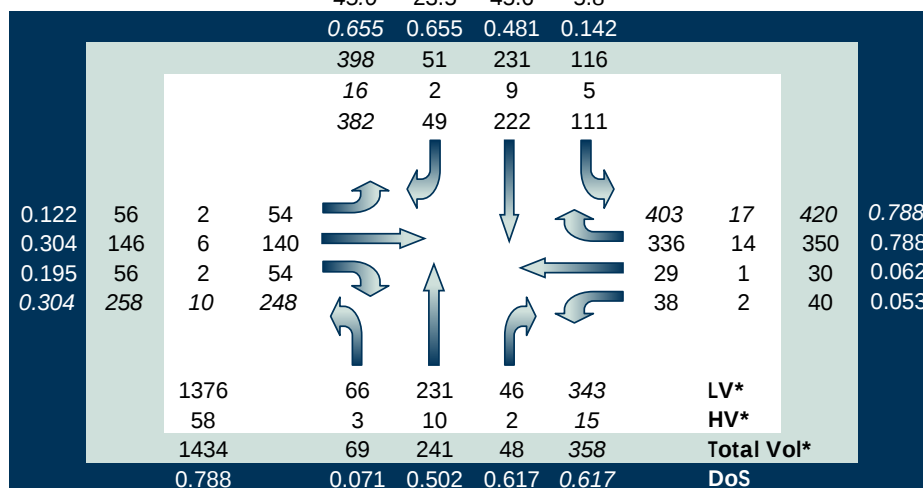
398	51	231	116
16	2	9	5
382	49	222	111

West

L	11.8	5.9	0.122	56	2	54
T	52.6	27.8	0.304	146	6	140
R	24.3	12.1	0.195	56	2	54
App	37.6	27.8	0.304	258	10	248

East

403	17	420	0.788	108.6	34.4	App
336	14	350	0.788	108.6	36	R
29	1	30	0.062	5.4	50.3	T
38	2	40	0.053	2	8.7	L



Intersection

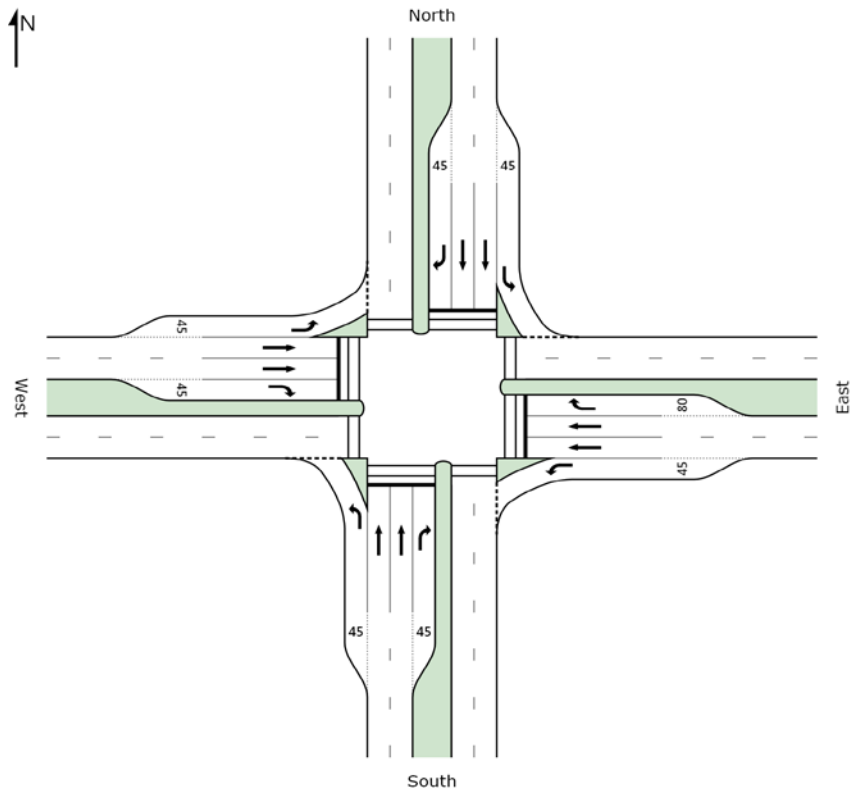
South

*Output Volumes

IN-54-18 (Type I - 3) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-18 pm]



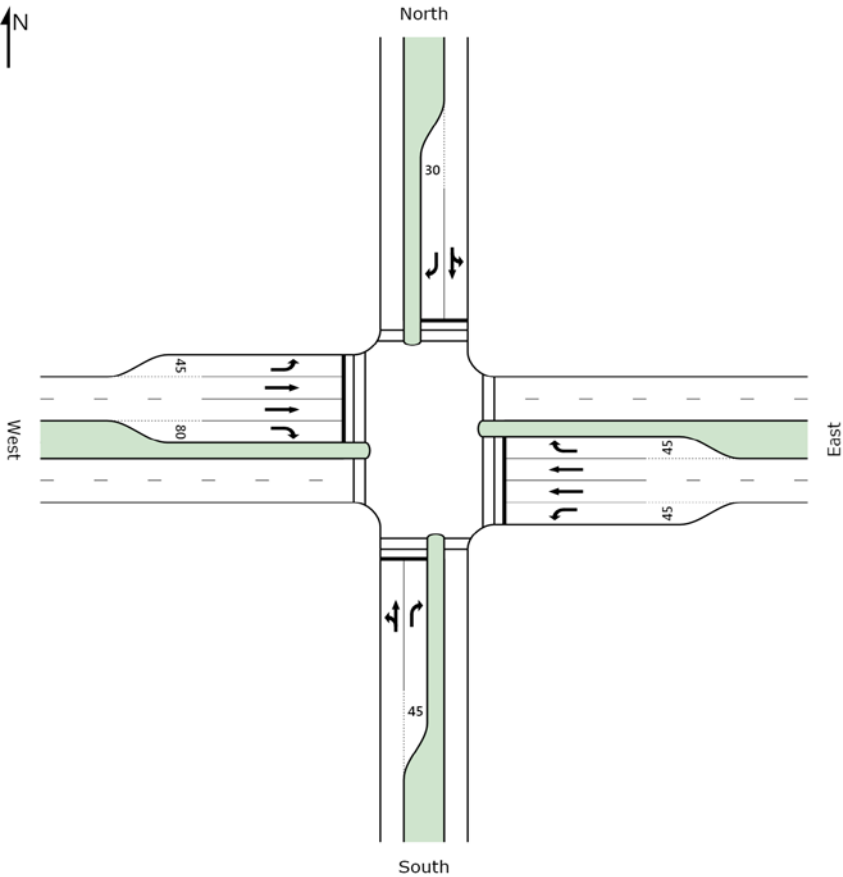
Phase	Grn	Total	%
A	15	21	18%
B1	11	17	14%
C	20	26	22%
D1	50	56	47%
Cycle	120 sec		

																		North															
																		App	R	T	L			App	R	T	L			Cycle	120	sec	
																		36.1	66.4	49.5	8.8			57	27.1	57	11.9						
																		0.475	0.448	0.475	0.276												
																		588	64	304	220												
																		24	3	12	9												
																		564	61	292	211												

IN-54-19 (Type I - 6) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-19 pm]



Phase	Grn	Total	%
A	12	18	15%
B1	6	12	10%
B2	11	17	14%
C	24	30	25%
D1	12	18	15%
D3	19	25	21%
Cycle		120	sec

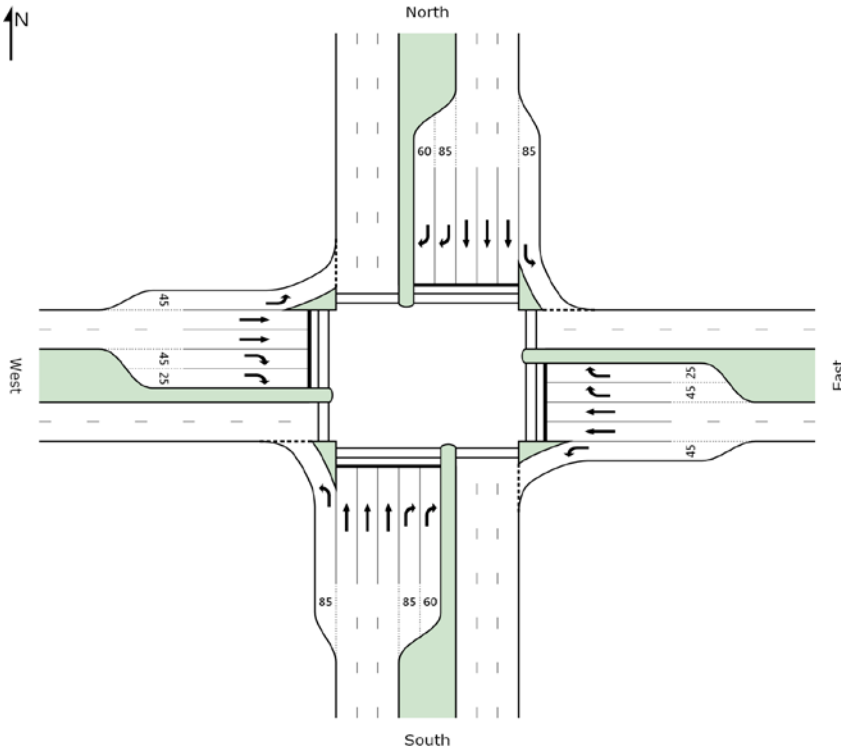
North														
App														
R														
T														
L														
0.453														
211														
4														
207														
43														
104														
64														
2														
102														
63														
470														
14														
484														
0.875														
73.4														
56.5														
App														
R														
T														
L														
1771														
232														
113														
184														
529														
LV*														
45														
5														
11														
HV*														
1816														
237														
115														
188														
540														
Total Vol*														
DoS														
0.875														
0.564														
0.564														
0.729														
0.729														
128.3														
115.3														
55														
115.3														
95th %ile Back of Queue (m)														
Average Delay (sec)														
45.4														
38.5														
31.3														
35.3														
35.9														
Intersection														
L														
T														
R														
App														
South														

*Output Volumes

IN-54-20 (Type I - 2) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D03 IN-54.sip[IN-54-20 am]



Phase	Grn	Total	%
A	18	24	20%
B1	8	14	12%
B3	18	24	20%
C	35	41	34%
D1	6	12	10%
D2	0	5	4%
Cycle		120	sec

North

App	R	T	L
22.1	48.5	15.4	10.5
59.2	56.6	59.2	3.3
0.469	0.469	0.339	0.076

West

L	12.6	31.2
T	48.1	13.9
R	73.2	11.1
App	27.1	31.2

1331	284	960	87
52	11	38	3
1279	273	922	84
274	11	263	
79	3	76	
50	2	48	
403	16	387	
2930	77	765	72
121	3	32	3
3051	80	797	75
0.575	0.093	0.474	0.361
84.4	5.4	84.4	16.2
29.6	11.6	37.3	71.4
0.575	0.093	0.474	0.361
84.4	5.4	84.4	16.2
29.6	11.6	37.3	71.4

East

350	15	365	0.480	29.1	38.4	App
109	5	114	0.480	29.1	67.3	R
107	4	111	0.151	18.3	43.6	T
134	6	140	0.305	9.5	10.6	L

Intersection

South

*Output Volumes

95th %ile Back of Queue (m)
Average Delay (sec)

InterSIDRA

(v1.4) 05-Sep-12

Project No: CG130783
Project Name: Clyde IN-57.1.

SIDRA File: N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip

Error Checking: No errors found

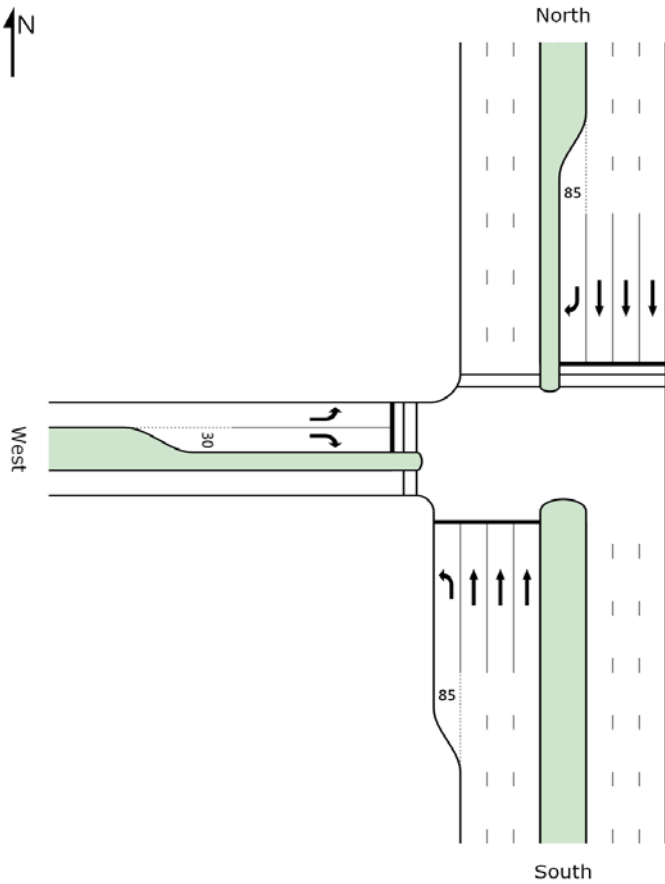
Site Summary

No	Link	Site Name	Intersection Title	Intersection Type	DoS	Cycle	Max Q	Notes
01		IN-57.1-01 am	Type I - 5a AM Peak - Ultimate Conditions	Signals	0.520	120	100.6	
02		IN-57.1-01 pm	Type I - 5a PM Peak - Ultimate Conditions	Signals	0.655	120	147.3	
03		IN-57.1-02 am	IN-57.1-02 (Type I - 6) AM Peak - Ultimate Conditions	Signals	0.588	120	42.4	
04		IN-57.1-02 pm	IN-57.1-02 (Type I - 6) PM Peak - Ultimate Conditions	Signals	0.596	120	57.7	
05		IN-57.1-03 am	IN-57.1-03 (Type I - 6a) AM Peak - Ultimate Conditions	Signals	0.191	120	12.5	
06		IN-57.1-03 pm	IN-57.1-03 (Type I - 6a) PM Peak - Ultimate Conditions	Signals	0.273	120	17.6	
07		IN-57.1-04 am	IN-57.1-04 (Type I - 3) AM Peak - Ultimate Conditions	Signals	0.294	120	33.2	
08		IN-57.1-04 pm	IN-57.1-04 (Type I - 3) PM Peak - Ultimate Conditions	Signals	0.550	120	58.5	
09								
10								
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39								
40								

Type I - 5a - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-01 am]



Phase	Grn	Total	%
A	34	40	33%
B	56	62	52%
C	12	18	15%

North

App	R	T	L
25.2	67.9	22.3	0
100.6	34.1	100.6	0
0.520	0.520	0.489	0.000

Cycle 120 sec

West

L	18.1	24.4
T	0	0
R	26.8	23.1
App	21.7	24.4

1304	82	1222	0
51	2	49	0
1253	80	1173	0
2330	61	780	0
89	1	32	0
2419	62	812	0
0.520	0.174	0.497	0.000
100.6	19.3	88	0
29.8	44.8	38.6	0
0.520	0.174	0.497	0.000

Intersection

L T R App

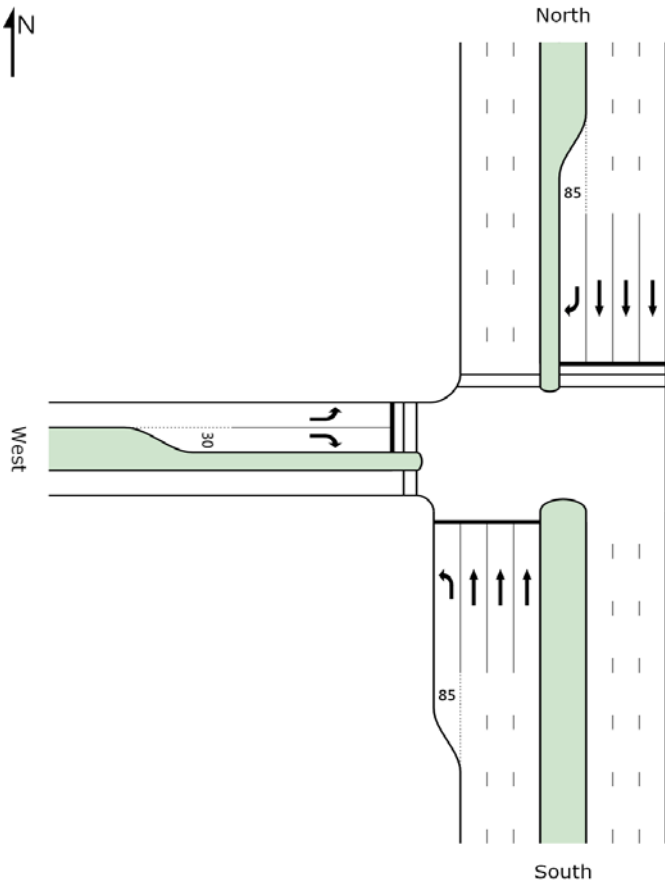
South

*Output Volumes

Type I - 5a - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-01 pm]



Phase	Grn	Total	%
A	45	51	43%
B	39	45	38%
C	18	24	20%

North

App	R	T	L
16.2	64	8.7	0
63.1	63.1	41.5	0

Cycle 120 sec

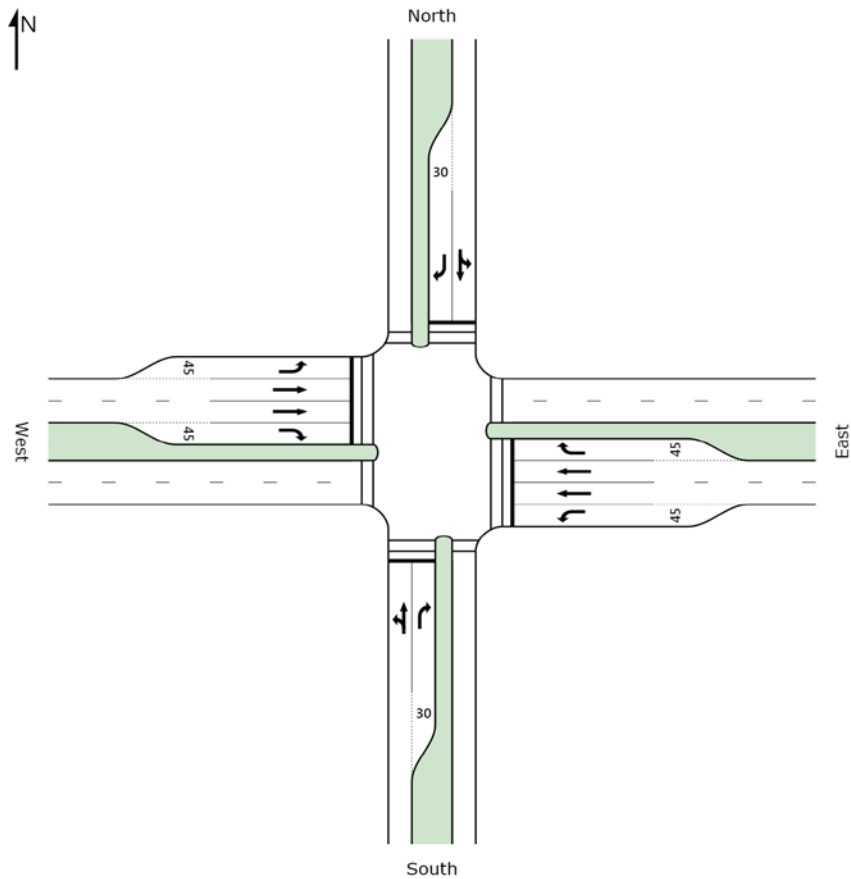
		West		North		South		East		West		North		South		East		West		North		South		East					
L	T	R	App	L	T	R	App	L	T	R	App	L	T	R	App	L	T	R	App	L	T	R	App	L	T	R	App		
23.4	0	41.2	31.7	25.4	0	32.8	32.8	0.149	0.000	0.655	0.655	0.149	0.000	0.655	0.655	0.149	0.000	0.655	0.655	0.149	0.000	0.655	0.655	0.149	0.000	0.655	0.655		
120	0	105	225	120	0	105	225	118	0	103	221	118	0	103	221	118	0	103	221	118	0	103	221	118	0	103	221		
2	0	2	4	2	0	2	4	2	0	2	4	2	0	2	4	2	0	2	4	2	0	2	4	2	0	2	4		
105	0	105	225	105	0	105	225	105	0	105	225	105	0	105	225	105	0	105	225	105	0	105	225	105	0	105	225		
2781	105	2886	0.655	2781	105	2886	0.655	2781	105	2886	0.655	2781	105	2886	0.655	2781	105	2886	0.655	2781	105	2886	0.655	2781	105	2886	0.655		
105	2	107	0.270	105	2	107	0.270	105	2	107	0.270	105	2	107	0.270	105	2	107	0.270	105	2	107	0.270	105	2	107	0.270		
147.3	29.8	147.3	0	147.3	29.8	147.3	0	147.3	29.8	147.3	0	147.3	29.8	147.3	0	147.3	29.8	147.3	0	147.3	29.8	147.3	0	147.3	29.8	147.3	0		
25.2	37.2	30.6	0	31.1	37.2	30.6	0	31.1	37.2	30.6	0	31.1	37.2	30.6	0	31.1	37.2	30.6	0	31.1	37.2	30.6	0	31.1	37.2	30.6	0		
Intersection		L		T		R		App		Intersection		L		T		R		App		Intersection		L		T		R		App	
2781		105		1355		0		1460		LV*		105		56		0		58		2886		105		56		0		58	
105		2		56		0		58		Total Vol*		105		56		0		58		DoS		105		56		0		58	
147.3		29.8		147.3		0		147.3		95th %ile Back of Queue (m)		147.3		29.8		147.3		0		31.1		147.3		29.8		147.3		0	
25.2		37.2		30.6		0		31.1		Average Delay (sec)		31.1		37.2		30.6		0		25.2		147.3		29.8		147.3		0	

*Output Volumes

IN-57.1-02 (Type I - 6) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-02 am]

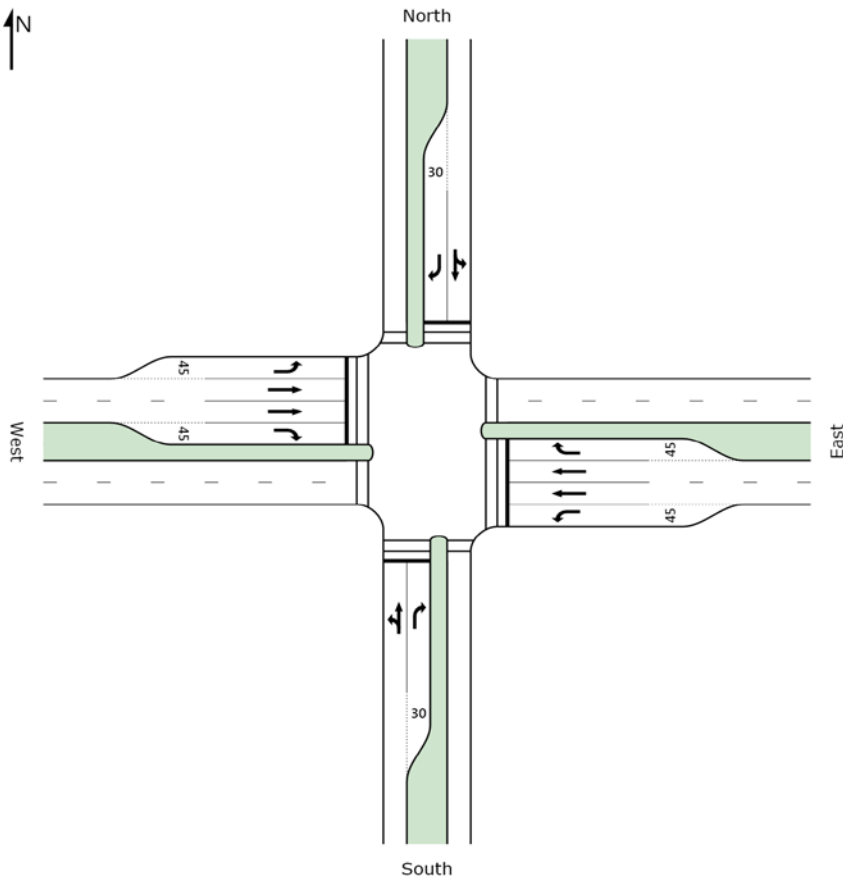


												Phase	Grn	Total	%
												A	18	24	20%
												B1	32	38	32%
												C	16	22	18%
												D1	6	12	10%
												D3	18	24	20%
												Cycle		120	sec
												North			
												App	R	T	L
												45.9	27.2	50.8	58.1
												38.2	9.4	38.2	38.2
												0.391	0.212	0.391	0.391
												139	40	64	35
												3	1	1	1
												136	39	63	34
												East			
												L	14.6	3.2	0.057
												T	26.1	13.3	0.086
												R	46.8	39.8	0.576
												App	34.6	39.8	0.576
												23	0	23	
												115	5	110	
												117	2	115	
												255	7	248	
												886	38	19	61
												24	1	0	1
												910	39	19	62
												0.588	0.206	0.206	0.330
												42.4	21	21	14.8
												40	53.6	46.3	27.9
												Intersection	L	T	R
												South			App
												39.2			
												LV*			
												HV*			
												Total Vol*			
												DoS			
												95th %ile Back of Queue (m)			
												Average Delay (sec)			
												*Output Volumes			
												App			
												R			
												T			
												L			
												396	0.588	42.4	41.7
												9	0.114	3.8	69.7
												226	0.392	42.4	50.5
												161	0.588	39.6	27.8

IN-57.1-02 (Type I - 6) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-02 pm]



Phase	Grn	Total	%
A	17	23	19%
B1	18	24	20%
B2	30	36	30%
C	16	22	18%
D1	9	15	13%
Cycle		120	sec

North

App	R	T	L
40.7	24.2	49.9	57.2
19.1	5.6	19.1	19.1
0.202	0.134	0.202	0.202

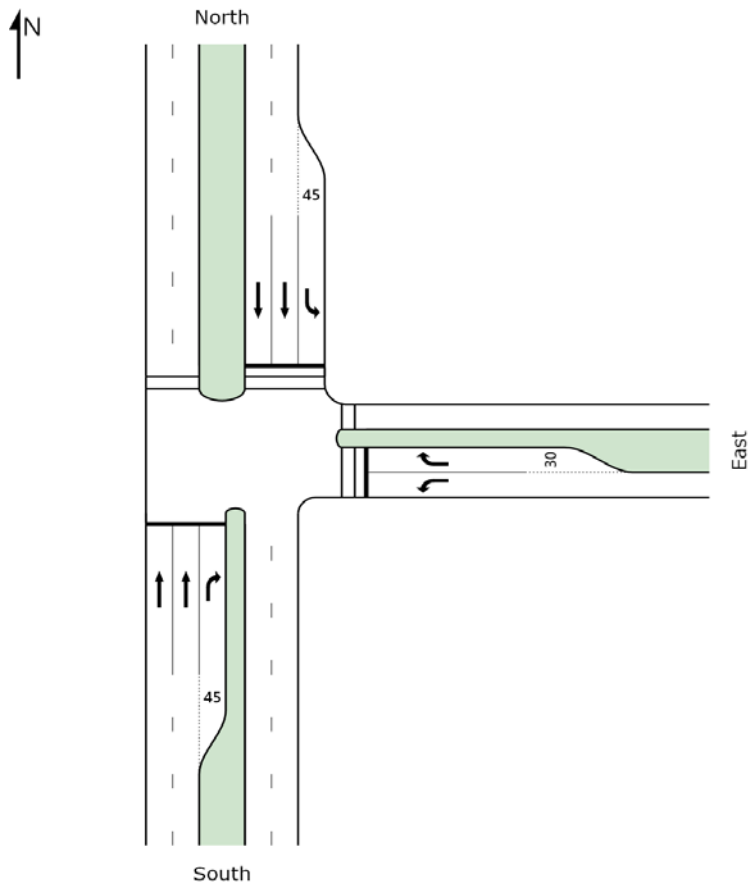
West		East	
L	37.4	29.3	0.438
T	52.8	57.7	0.540
R	68.4	25.6	0.508
App	51.4	57.7	0.540
North		South	
L	37.4	29.3	0.438
T	52.8	57.7	0.540
R	68.4	25.6	0.508
App	51.4	57.7	0.540

*Output Volumes

IN-57.1-03 (Type I - 6a) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-03 am]



Phase	Grn	Total	%
A	12	18	15%
B	67	73	61%
C	23	29	24%

Cycle 120 sec

North

App	R	T	L
56.2	0	54.6	62.2
12.5	0	12.5	6.7
0.169	0.000	0.169	0.111

82	0	65	17
3	0	3	0
79	0	62	17

East

L	0	0	0.000	0	0	0	128	3	131	0.191	8.2	13.2	App
T	0	0	0.000	0	0	0	43	1	44	0.191	8.2	19.7	R
R	0	0	0.000	0	0	0	0	0	0	0.000	0	0	T
App	0	0	0.000	0	0	0	85	2	87	0.059	7.4	9.9	L

292	0	50	35	85	LV*
9	0	2	1	3	HV*
301	0	52	36	88	Total Vol*

*Output Volumes

0.191	0.000	0.040	0.190	0.190	DoS
-------	-------	-------	-------	-------	-----

12.5	0	6	12.5	12.5	95th %ile Back of Queue (m)
31.7	0	26.5	50.8	36.4	Average Delay (sec)

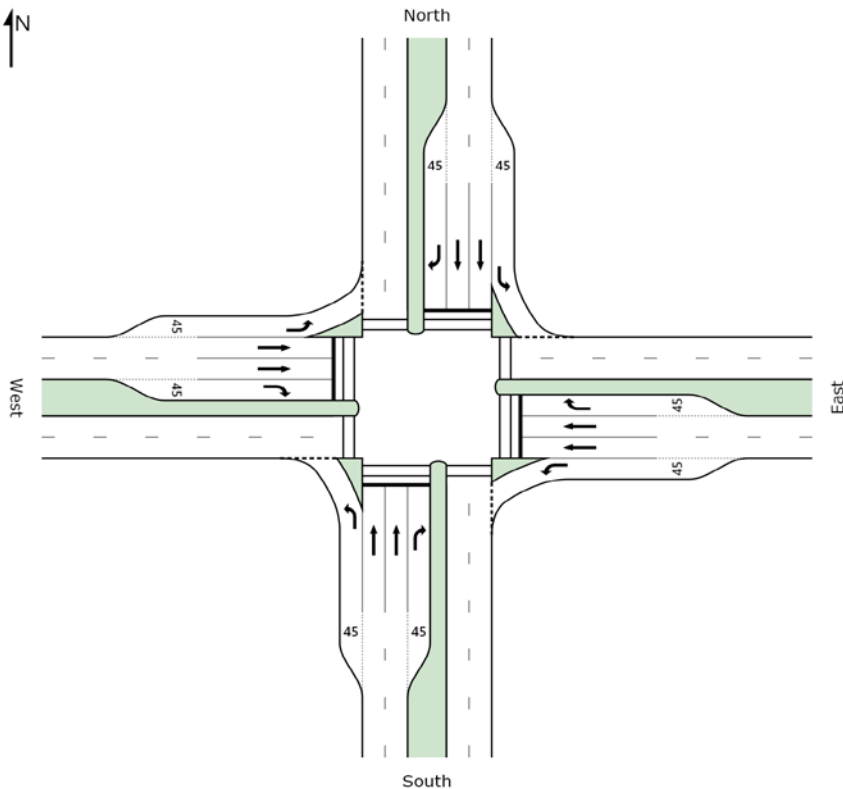
Intersection L T R App

South

IN-57.1-04 (Type I - 3) - AM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-04 am]



Phase	Grn	Total	%
A	21	27	23%
B1	43	49	41%
C	15	21	18%
D1	17	23	19%

Cycle 120 sec

North

App	R	T	L
41	35.2	51.4	8.6
16.2	16.2	14.6	0.7
0.250	0.250	0.165	0.019

West

L	8.1	0.8
T	46.5	30
R	58.3	19.3
App	44	30

152	58	79	15
6	2	3	1
146	56	76	14
32	1	31	293
172	7	165	5
50	2	48	181
254	10	244	107
845	48	49	65
35	2	2	3
880	50	51	68
0.294	0.063	0.106	0.294
33.2	2.2	9.3	19.2
37.4	8.5	50.8	35.5

East

0.281	33.2	33	App
0.028	1.8	55.9	R
0.281	33.2	46.7	T
0.128	4.6	8.4	L

Intersection

South

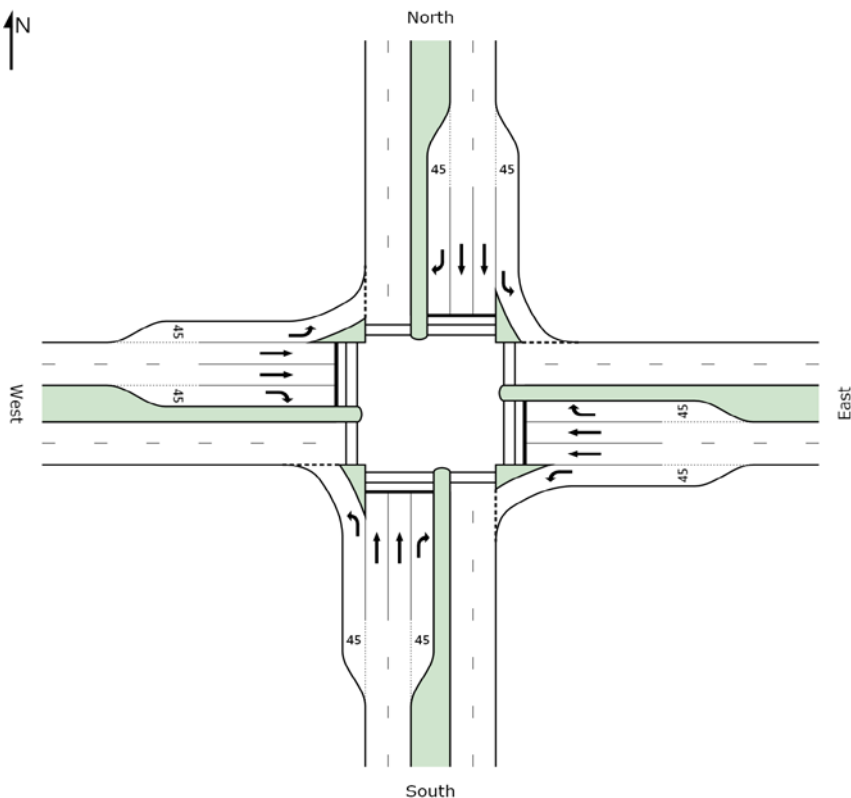
*Output Volumes

95th %ile Back of Queue (m)
Average Delay (sec)

IN-57.1-04 (Type I - 3) - PM Peak - Ultimate Conditions

Signals

N:\WINDOWS\2013\CG130783\SIDRA\CG130783SID003D01 IN-57.1.sip[IN-57.1-04 pm]



Phase	Grn	Total	%
A	18	24	20%
B1	52	58	48%
B2	0	4	3%
C	15	21	18%
D1	7	13	11%
Cycle		120	sec

North

App	R	T	L
40.7	28.9	51.3	9.8
13.7	11	13.7	0.6
0.174	0.174	0.154	0.014

West

L	8.2	2.3	0.072
T	51.8	58.5	0.524
R	72	22.3	0.550
App	47.1	58.5	0.550

127	45	74	8
5	2	3	0
122	43	71	8
1102	48	101	139
46	2	4	6
1148	50	105	145
0.550	0.064	0.173	0.534
58.5	2.3	18.4	35.7
40.2	8.6	47.5	27.9
0.550	0.064	0.173	0.534
58.5	2.3	18.4	35.7
40.2	8.6	47.5	27.9

East

289	12	301	0.344
15	1	16	0.176
190	8	198	0.344
84	3	87	0.097
36.7	6.9	69.4	36.7
3.3	8.3	8.3	3.3

*Output Volumes

Intersection

South