A. Corridor Crash Data

Clague Road Corridor 2015-2019 Crash Data

	Number
Total	**115**

CRASH_SEVERITY	Number	%
Injury Crash	**23**	20.0%
Property Damage Crash	**92**	80.0%
Grand Total	**115**	**100.0%**

TRAFFIC_CRASH_YEAR	Number	%
2015	**28**	24.3%
2016	**20**	17.4%
2017	**22**	19.1%
2018	**27**	23.5%
2019	**18**	15.7%
Grand Total	**115**	**100.0%**

DAY_OF_WEEK	Number	%
Wednesday	**25**	21.7%
Monday	**20**	17.4%
Tuesday	**18**	15.7%
Saturday	**17**	14.8%
Thursday	**17**	14.8%
Friday	**13**	11.3%
Sunday	**5**	4.3%
Grand Total	**115**	**100.0%**

HOUR_OF_DAY	Number	%
1	**1**	0.9%
2	**1**	0.9%
4	**2**	1.7%
6	**1**	0.9%
7	**5**	4.3%
8	**10**	8.7%
9	**1**	0.9%
10	**4**	3.5%
11	**6**	5.2%
12	**5**	4.3%
13	**9**	7.8%
14	**7**	6.1%
15	**12**	10.4%
16	**12**	10.4%
17	**10**	8.7%
18	**15**	13.0%
19	**4**	3.5%
20	**5**	4.3%
21	**3**	2.6%
22	**2**	1.7%
Grand Total	**115**	**100.0%**

TYPE_OF_CRASH	Number	%
Rear End	**84**	73.0%
Fixed Object	**8**	7.0%
Backing	**5**	4.3%
Sideswipe - Passing	**4**	3.5%
Left Turn	**4**	3.5%
Angle	**4**	3.5%
Head On	**3**	2.6%
Animal	**1**	0.9%
Right Turn	**1**	0.9%
Pedestrian	**1**	0.9%
Grand Total	**115**	**100.0%**

Clague Road Corridor 2015-2019 Crash Data

WEATHER_CONDITION	Number	%
Data Not Valid or Not Provided	**115**	100.0%
Grand Total	**115**	**100.0%**

ROAD_CONDITION	Number	%
Dry	**68**	59.1%
Wet	**38**	33.0%
Snow	**6**	5.2%
Water (Standing, Moving)	**2**	1.7%
Ice	**1**	0.9%
Grand Total	**115**	**100.0%**

LIGHT_CONDITION	Number	%
Daylight	**83**	72.2%
Dusk	**23**	20.0%
Dawn	**6**	5.2%
Unknown	**2**	1.7%
Dark - Lighted Roadway	**1**	0.9%
Grand Total	**115**	**100.0%**

NUMBER_OF_VEHICLES	Number	%
1	**9**	7.8%
2	**81**	70.4%
3	**23**	20.0%
4	**1**	0.9%
5	**1**	0.9%
Grand Total	**115**	**100.0%**

LOCATION	Number	%
Not An Intersection	**84**	73.0%
T-Intersection	**25**	21.7%
Four-Way Intersection	**5**	4.3%
Driveway/Alley Access	**1**	0.9%
Grand Total	**115**	**100.0%**

CRASH_MONTH_NBR	Number	%
1	**8**	7.0%
2	**13**	11.3%
3	**5**	4.3%
4	**1**	0.9%
5	**6**	5.2%
6	**10**	8.7%
7	**10**	8.7%
8	**14**	12.2%
9	**10**	8.7%
10	**18**	15.7%
11	**16**	13.9%
12	**4**	3.5%
Grand Total	**115**	**100.0%**

ROAD_CONTOUR	Number	%
Straight Level	**98**	85.2%
Straight Grade	**10**	8.7%
Curve Level	**7**	6.1%
Grand Total	**115**	**100.0%**

SPECIAL_AREA	Number	%
(blank)	**115**	100.0%
Grand Total	**115**	**100.0%**

ANIMAL_TYPE	Number	%
(blank)	**115**	100.0%
Grand Total	**115**	**100.0%**

Clague Road Corridor 2015-2019 Crash Data

ACTION1	Number	%
Straight Ahead	**88**	76.5%
Making Left Turn	**9**	7.8%
Slowing Or Stopped In Traffic	**7**	6.1%
Backing	**5**	4.3%
Negotiating A Curve	**1**	0.9%
Leaving Traffic Lane	**1**	0.9%
Entering Or Crossing Specified Location	**1**	0.9%
Overtaking/Passing	**1**	0.9%
Making Right Turn	**1**	0.9%
Entering Traffic Lane	**1**	0.9%
Grand Total	**115**	**100.0%**

CONTRIBUTING_FACTOR1	Number	%
Left Of Center	**80**	69.6%
Unknown	**13**	11.3%
Failure To Yield	**9**	7.8%
None-Motorist	**8**	7.0%
Improper Start From Parked Position	**3**	2.6%
Unsafe Speed	**1**	0.9%
Improper Turn	**1**	0.9%
Grand Total	**115**	**100.0%**

	Number	%
Total	**115**	**100.0%**

TRAFFIC_CONTROL1	Number	%
No Control	**80**	69.6%
Signal	**31**	27.0%
Stop Sign	**4**	3.5%
Grand Total	**115**	**100.0%**

DRIVER_ALCOHOL1	Number	%
No	**109**	94.8%
Yes	**6**	5.2%
Grand Total	**115**	**100.0%**

DRIVER_DRUGS1	Number	%
No	**115**	100.0%
Grand Total	**115**	**100.0%**

Clague Road Corridor 2015-2019 Crash Data

DIRECTION_FROM1	Number	%
South	**62**	53.9%
North	**44**	38.3%
West	**5**	4.3%
East	**3**	2.6%
Unknown	**1**	0.9%
Grand Total	**115**	**100.0%**

DIRECTION_TO1	Number	%
North	**59**	51.3%
South	**42**	36.5%
West	**6**	5.2%
East	**4**	3.5%
Unknown	**4**	3.5%
Grand Total	**115**	**100.0%**

POSTED_SPEED1	Number	%
35	**108**	93.9%
25	**5**	4.3%
0	**2**	1.7%
Grand Total	**115**	**100.0%**

ESTIMATED_SPEED1	Number	%
20	**21**	18.3%
10	**17**	14.8%
35	**16**	13.9%
5	**15**	13.0%
15	**15**	13.0%
25	**13**	11.3%
30	**7**	6.1%
1	**3**	2.6%
0	**3**	2.6%
3	**2**	1.7%
60	**1**	0.9%
2	**1**	0.9%
40	**1**	0.9%
Grand Total	**115**	**100.0%**

VEHICLE_TYPE1	Number	%
Sub-Compact	**72**	62.6%
Mid Size	**22**	19.1%
Full Size	**9**	7.8%
Compact	**5**	4.3%
Minivan	**4**	3.5%
Single Unit Truck; 3+ Axles	**1**	0.9%
Single Unit Truck/Trailer	**1**	0.9%
Animal With Rider	**1**	0.9%
Grand Total	**115**	**100.0%**

VEHICLE_TYPE2	Number	%
Sub-Compact	**51**	44.3%
Mid Size	**39**	33.9%
Full Size	**9**	7.8%
	9	7.8%
Compact	**3**	2.6%
Minivan	**2**	1.7%
Unknown Or Hit/Skip	**1**	0.9%
Single Unit Truck; 3+ Axles	**1**	0.9%
Grand Total	**115**	**100.0%**

Clague Road Corridor 2015-2019 Crash Data

ACTION2	Number	%
Slowing Or Stopped In Traffic	**66**	57.4%
Straight Ahead	**36**	31.3%
	10	8.7%
Making Left Turn	**3**	2.6%
Grand Total	**115**	**100.0%**

CONTRIBUTING_FACTOR2	Number	%
None-Motorist	**100**	87.0%
	9	7.8%
Unknown	**3**	2.6%
Left Of Center	**2**	1.7%
Failure To Yield	**1**	0.9%
Grand Total	**115**	**100.0%**

DIRECTION_FROM2	Number	%
South	**57**	49.6%
North	**45**	39.1%
	9	7.8%
West	**2**	1.7%
Unknown	**1**	0.9%
East	**1**	0.9%
Grand Total	**115**	**100.0%**

DIRECTION_TO2	Number	%
North	**56**	48.7%
South	**44**	38.3%
	9	7.8%
West	**3**	2.6%
East	**2**	1.7%
Unknown	**1**	0.9%
Grand Total	**115**	**100.0%**

DRIVER_ALCOHOL2	Number	%
(blank)	**115**	100.0%
Grand Total	**115**	**100.0%**

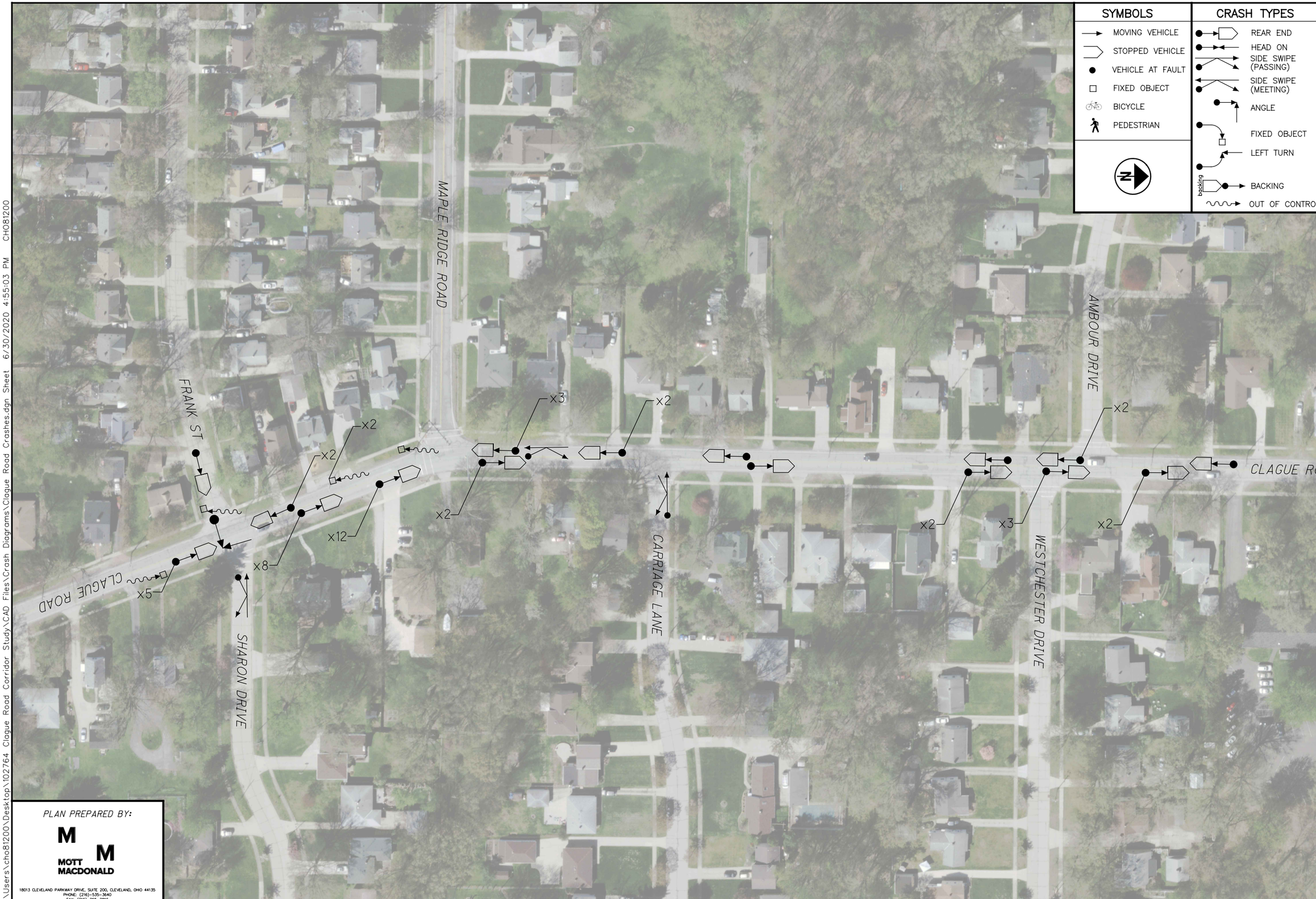
DRIVER_DRUGS2	Number	%
(blank)	**115**	100.0%
Grand Total	**115**	**100.0%**

Clague Road Corridor 2015-2019 Crash Data

SEVERITY	CRASH_SEVERITY	
TRAFFIC_CRASH_YEAR	Property Damage Crash	Injury Crash
2015	22	6
2016	15	5
2017	17	5
2018	23	4
2019	15	3
Grand Total	**92**	**23**

TRAFFIC_CRASH_YEAR	Fatalities	Incapacitating Injuries
2015	0	2
2016	0	0
2017	0	0
2018	0	0
2019	0	1
Grand Total	**0**	**3**

TRAFFIC_CRASH_YEAR	INJ_TYPE2_SERIOUS_VISIBLE	INJ_TYPE3_MINOR_VISIBLE	INJ_TYPE4_NO_VISIBLE
2015	2	2	5
2016	0	3	4
2017	0	0	7
2018	0	2	4
2019	1	3	1
Grand Total	**3**	**10**	**21**



PLAN PREPARED BY:

MOTT MACDONALD

18013 CLEVELAND PARKWAY DRIVE, SUITE 200, CLEVELAND, OHIO 44135
PHONE: (216)-535-3640
FAX: (216)-265-2816

CALCULATED AC
CHECKED SJB

CLAGUE ROAD FROM FRANK ST TO AMBOUR DR COLLISION DIAGRAM (2015-2019)

CLAGUE RD STUDY

1/3

C:\Users\cho81200\Desktop\102764 Clague Road Corridor Study\CAD Files\Crash Diagrams\Clague Road Crashes.dgn Sheet 6/30/2020 4:55:03 PM CHO81200

PLAN PREPARED BY:

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PHONE: (216)-535-3640
FAX: (216)-265-2816

CALCULATED AC
CHECKED SJB

CLAGUE ROAD FROM ALEXANDER RD TO MARION RD COLLISION DIAGRAM (2015-2019)

CLAGUE RD STUDY

2/3

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PLAN PREPARED BY:

MOTT MACDONALD

18013 CLEVELAND PARKWAY DRIVE, SUITE 200, CLEVELAND, OHIO 44135
PHONE: (216)-535-3640
FAX: (216)-265-2816

CALCULATED AC
CHECKED SJB

CLAGUE ROAD AT DELMERE DR COLLISION DIAGRAM (2015-2019)

CLAGUE RD STUDY

3/3

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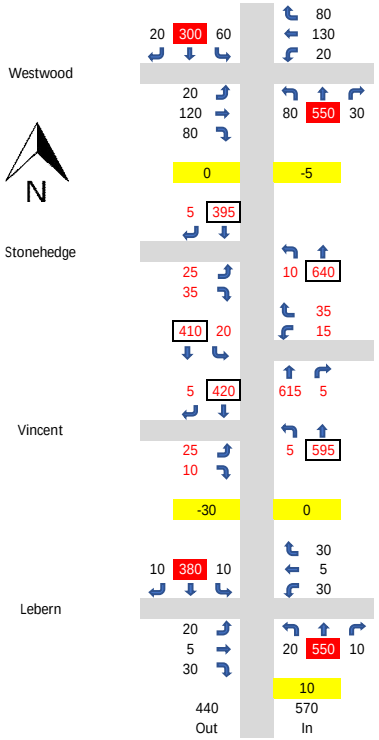
B. Corridor Volume Data

2024

AM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80
130
20
20
120
80
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0
-5
Stonehedge
5 395
25
35
10 640
35
15
410 20
Marion
5 420
615 5
Vincent
25
10
5 595
-30
0
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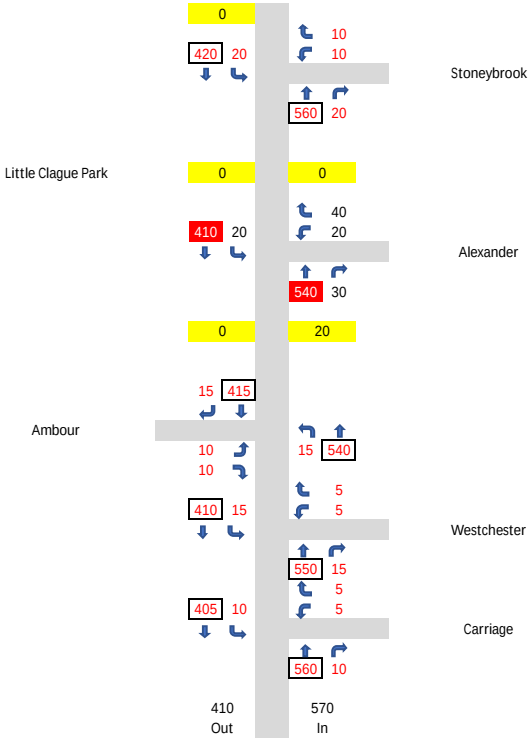
10 380 10
5
30
Lebern
Clifford
20
5
30
20 550 10
10
440
Out
570
In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10
Stoneybrook
560 20
Little Clague Park
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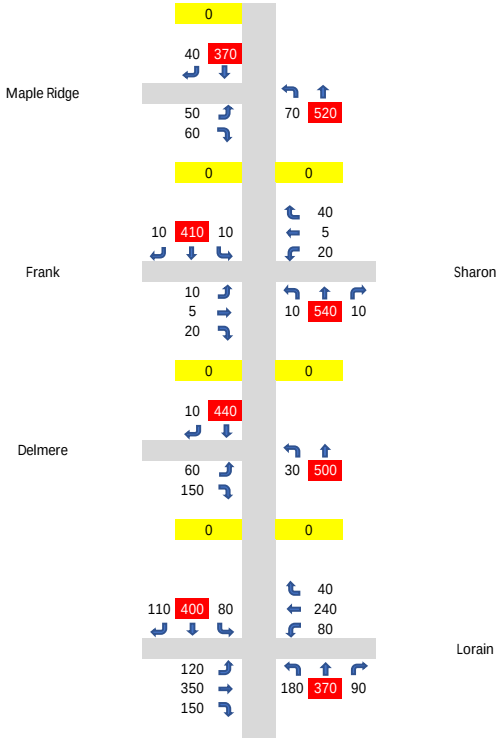
0
40
410 20
20
Alexander
540 30
0
20
15 415
Ambour
10
10
15 540
5
410 15
5
Westchester
550 15
5
405 10
5
Carriage
560 10
410
Out
570
In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Maple Ridge
50
60
70 520
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20
Frank
Sharon
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5
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0
0
10 440
Delmere
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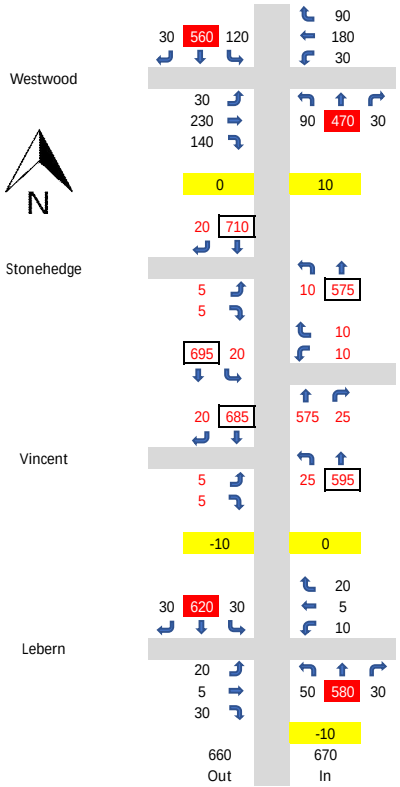
110 400 80
240
80
Lorain
120
350
150
180 370 90

2024
PM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Stonehedge
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5
10 575
10
10
695 20
Marion
20 685
575 25
Vincent
5
5
25 595
-10
0
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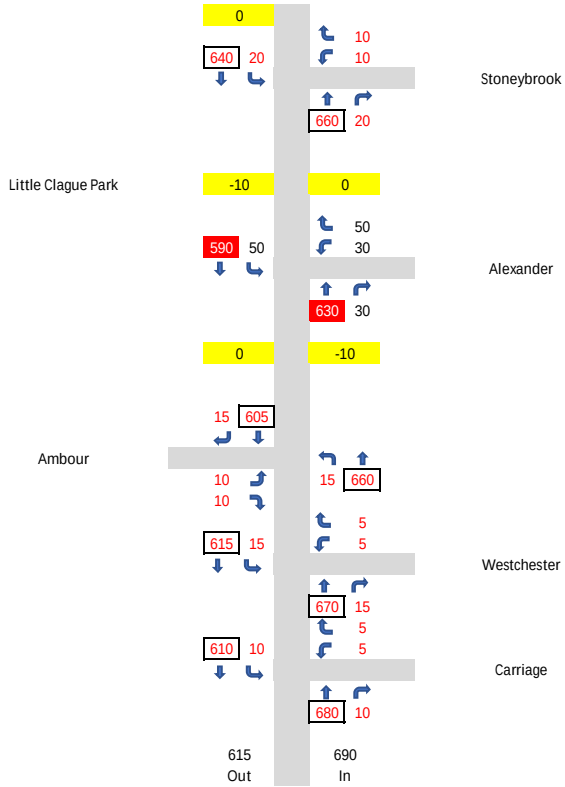
30 620 30
5
10
Lebern
Clifford
20
5
30
50 580 30
-10
660
Out
670
In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Little Clague Park
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50
590 50
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Alexander
630 30
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5
615 15
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Westchester
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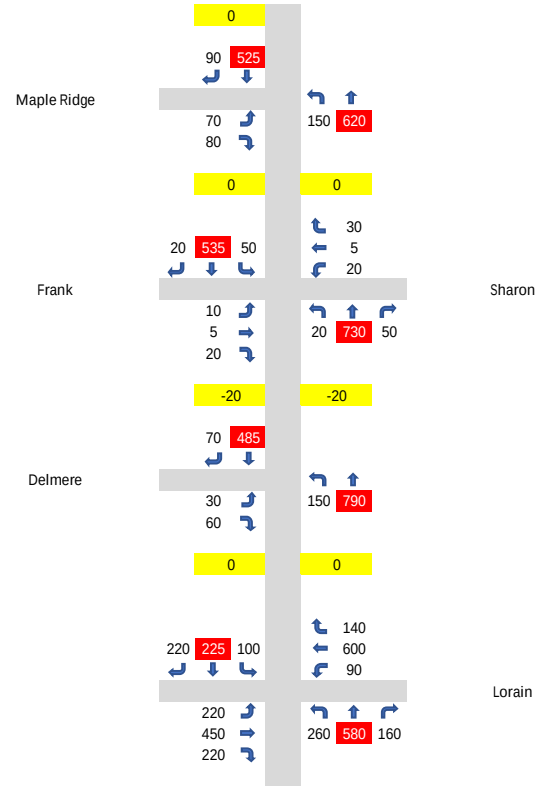
610 10
5
Carriage
680 10
615
Out
690
In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20
Frank
Sharon
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20 730 50
-20
-20
70 485
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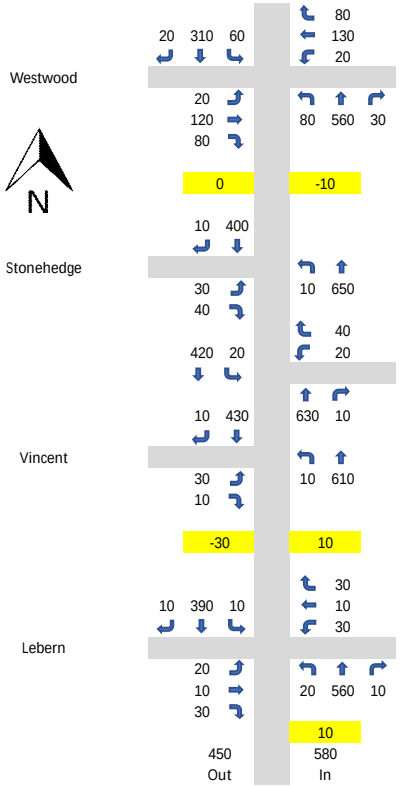
90
Lorain
220
450
220
260 580 160

2044 AM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-10
Stonehedge
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20
Marion
10 430
630 10
Vincent
30
10
10 610
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Lebern
Clifford
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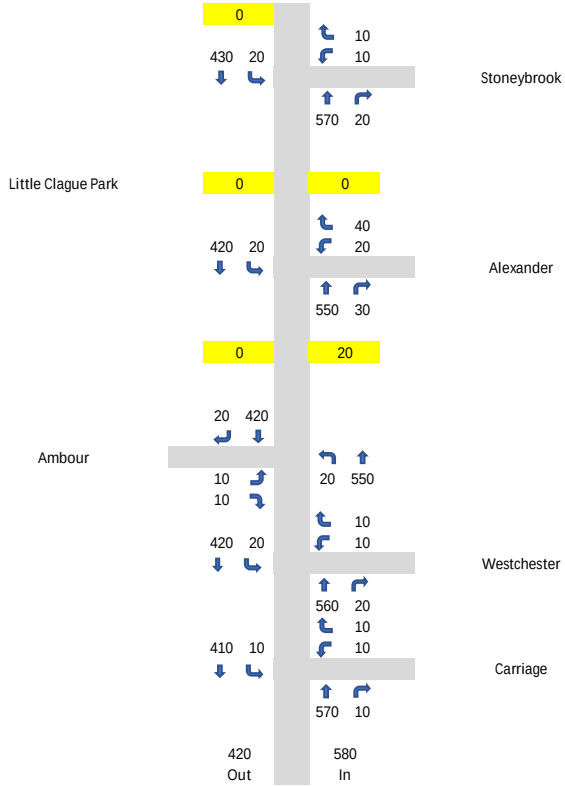
Out
580
In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Carriage
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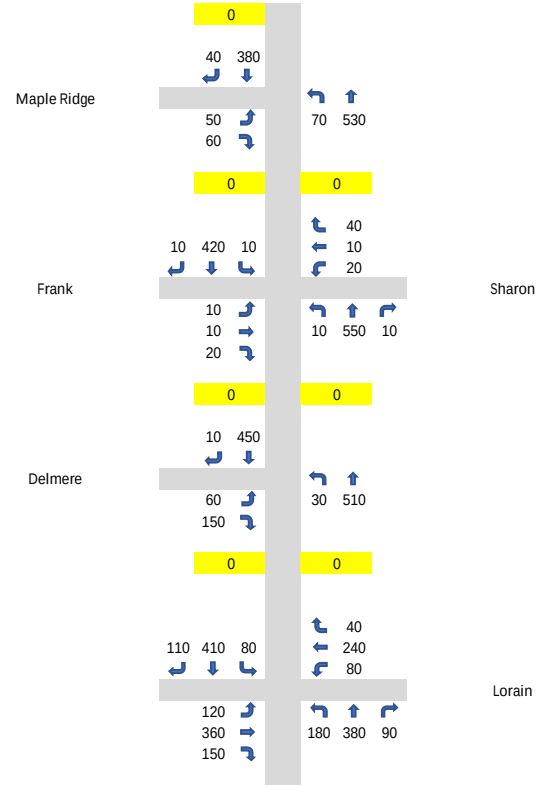
Out
580
In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Sharon
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Lorain
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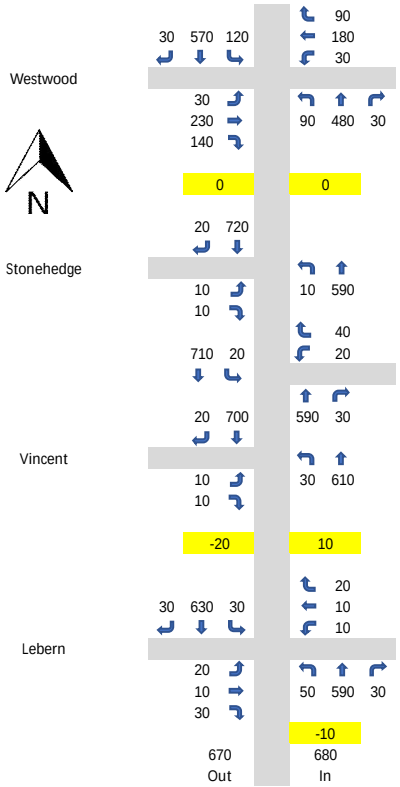
2044

PM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Stonehedge
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40
710 20
20
Marion
20 700
590 30
Vincent
10
10
30 610
-20
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Lebern
Clifford
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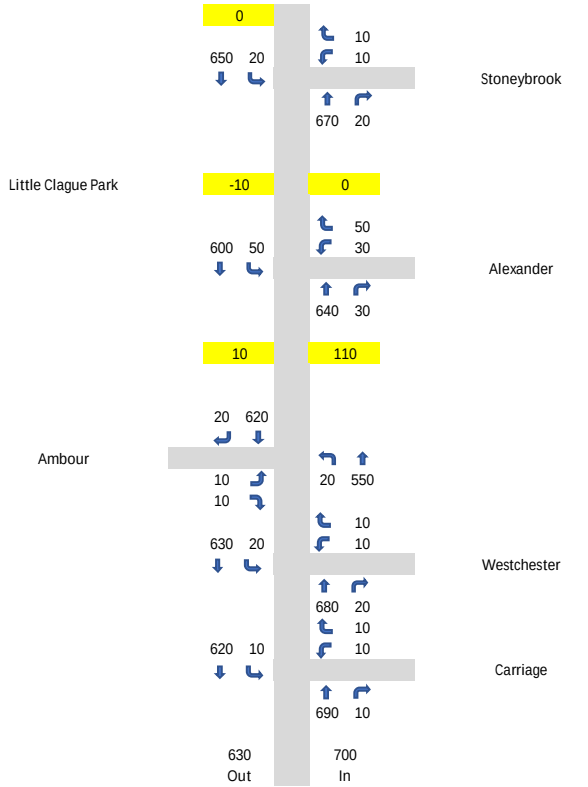
10
30
50 590 30
-10
670
Out
680
In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Carriage
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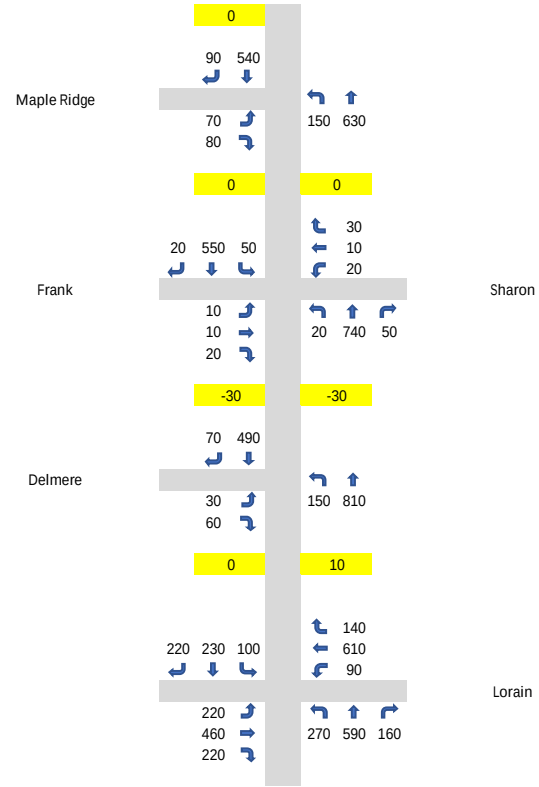
Out
700
In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Sharon
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20
20 740 50
-30
-30
70 490
Delmere
30
60
150 810
0
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Lorain
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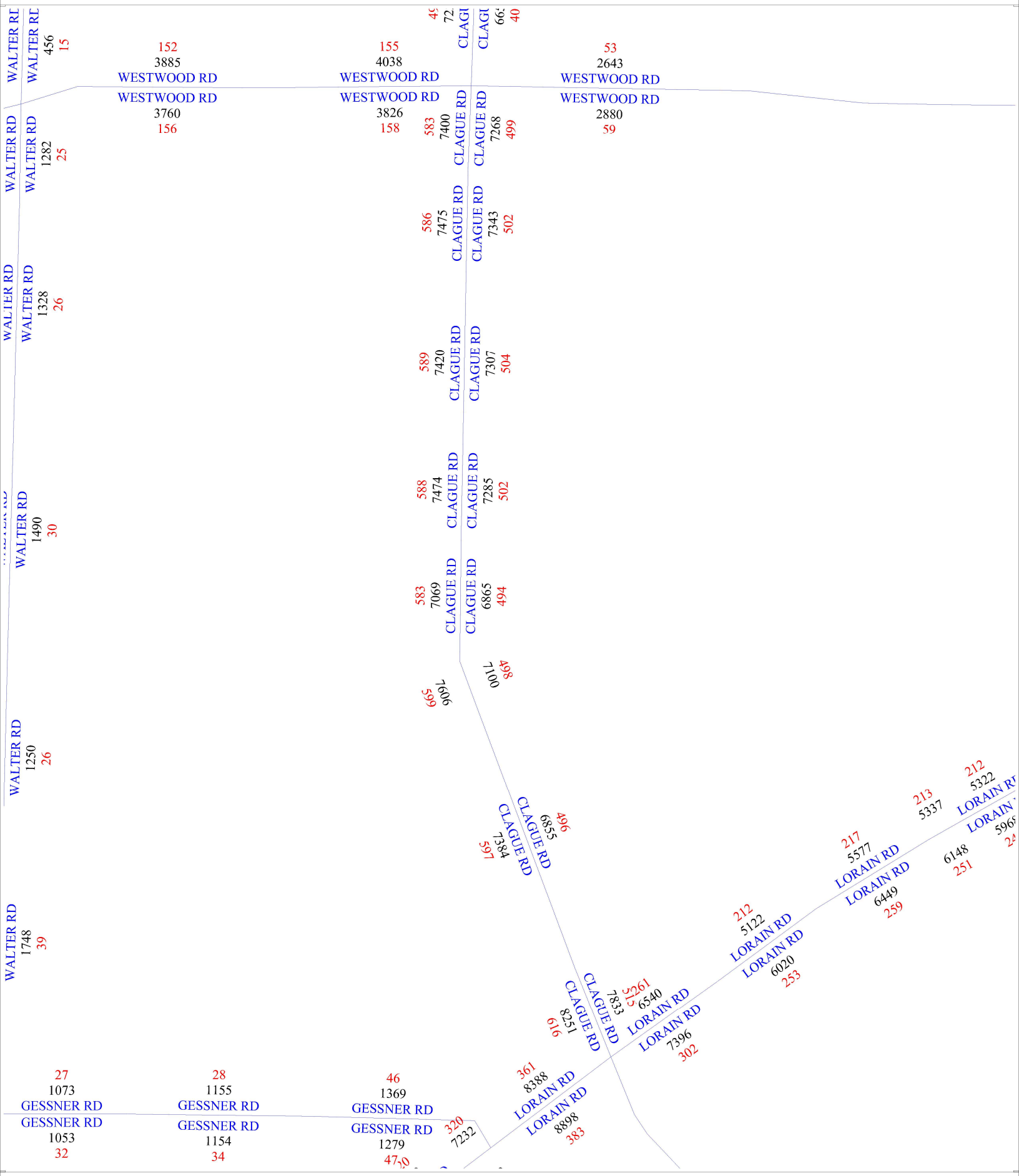
NOACA 2020 Base Year
NOACA Travel Forecasting Model
Directional 24-HR Auto & Truck Volumes



NOACA

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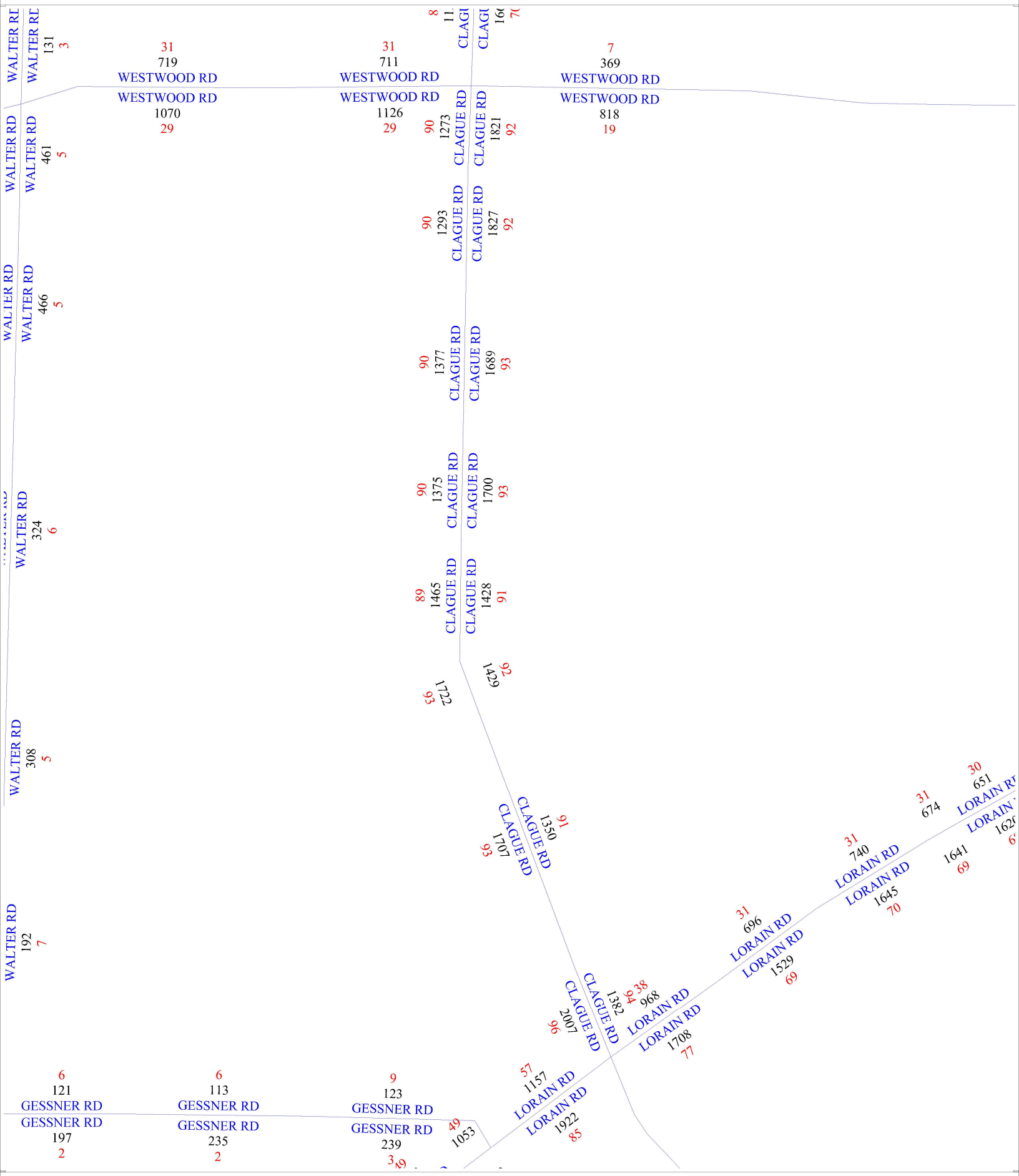
NOACA 2020 Base Year
NOACA Travel Forecasting Model
Directional AM Peak Period Auto & Truck Volumes



NOACA

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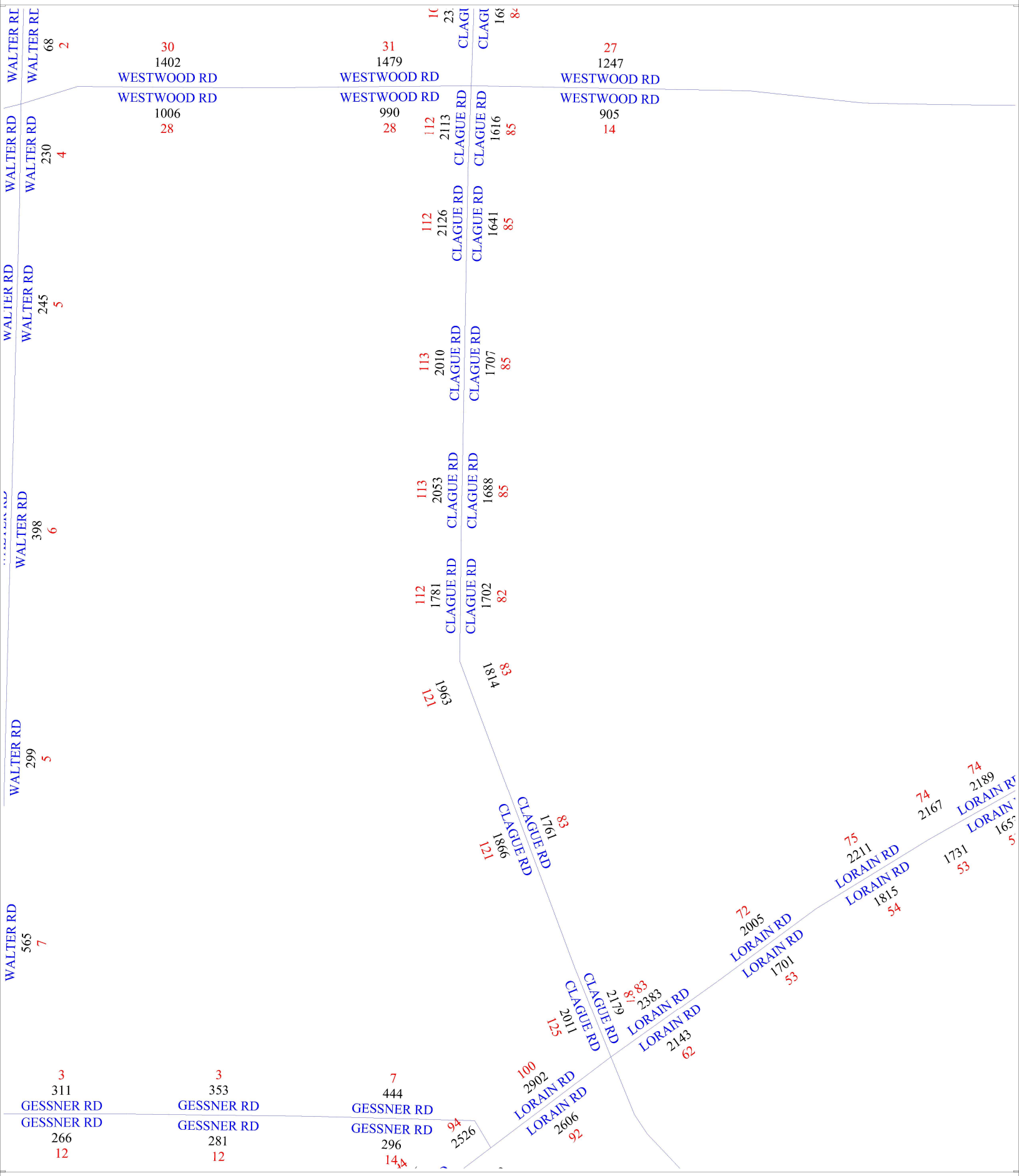
NOACA 2020 Base Year
NOACA Travel Forecasting Model
Directional PM Peak Period Auto & Truck Volumes



NOACA

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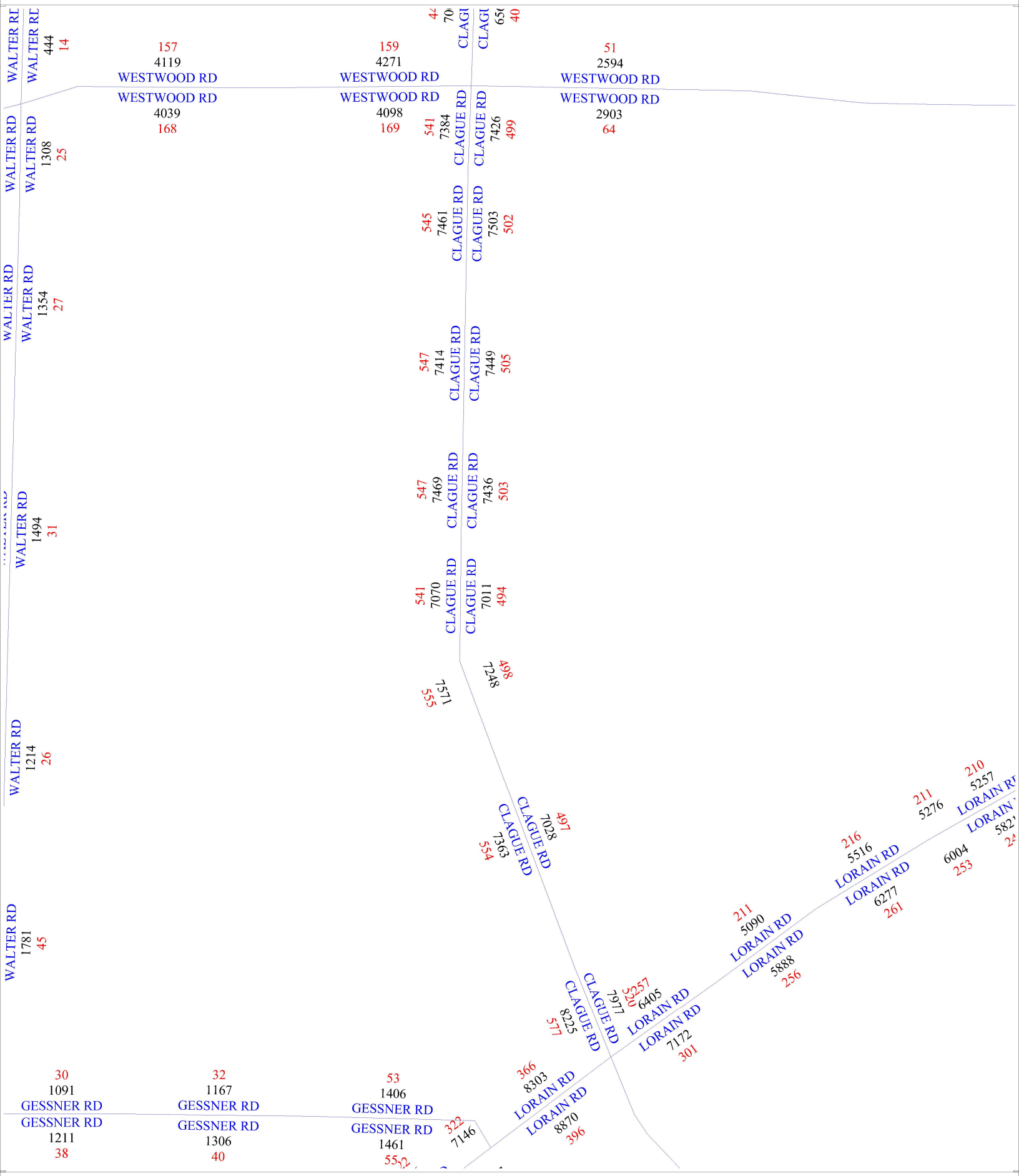
NOACA 2040 Scenario Year
NOACA Travel Forecasting Model
Directional 24-HR Auto & Truck Volumes



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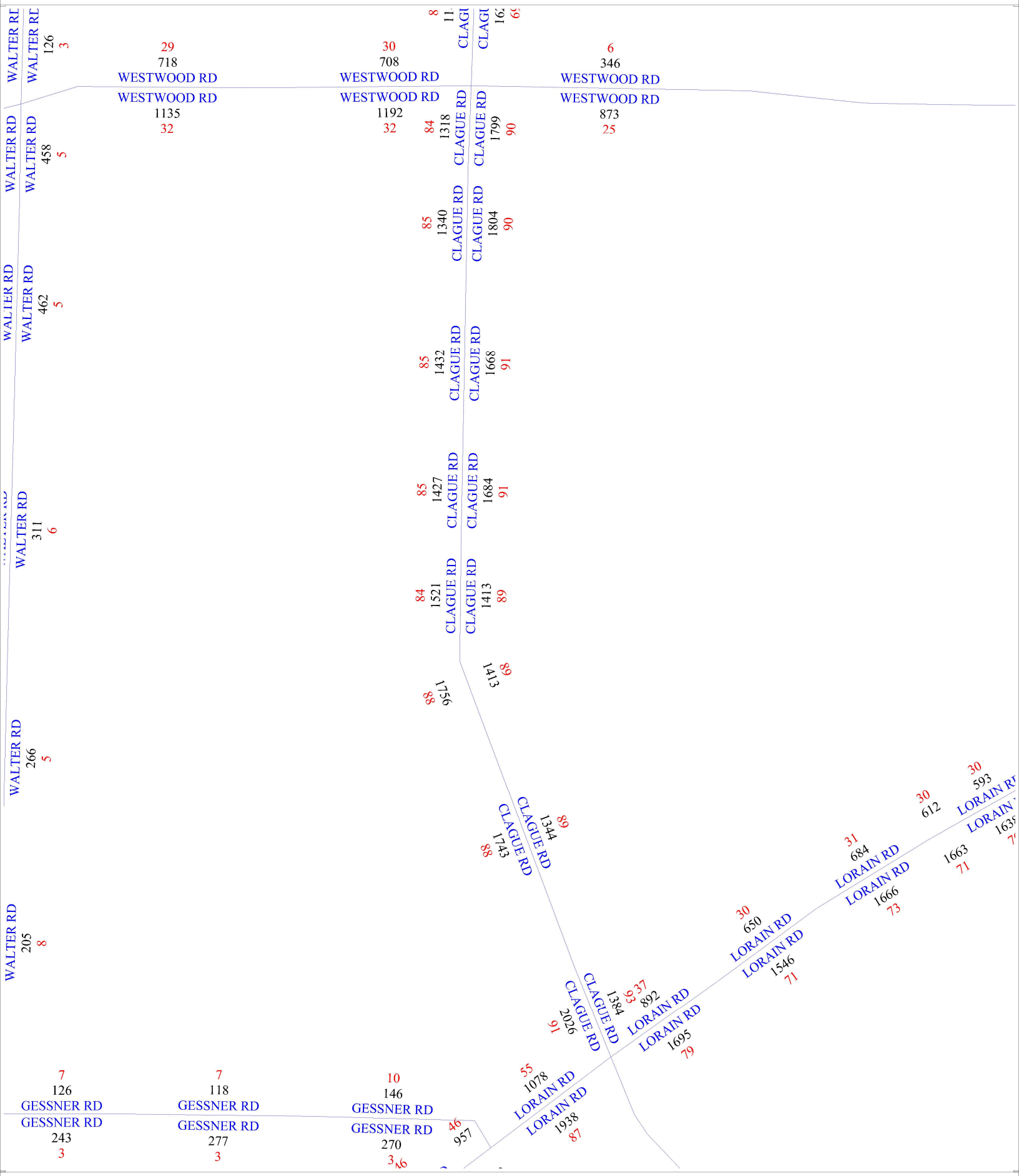
NOACA 2040 Scenario Year
NOACA Travel Forecasting Model
Directional AM Peak Period Auto & Truck Volumes



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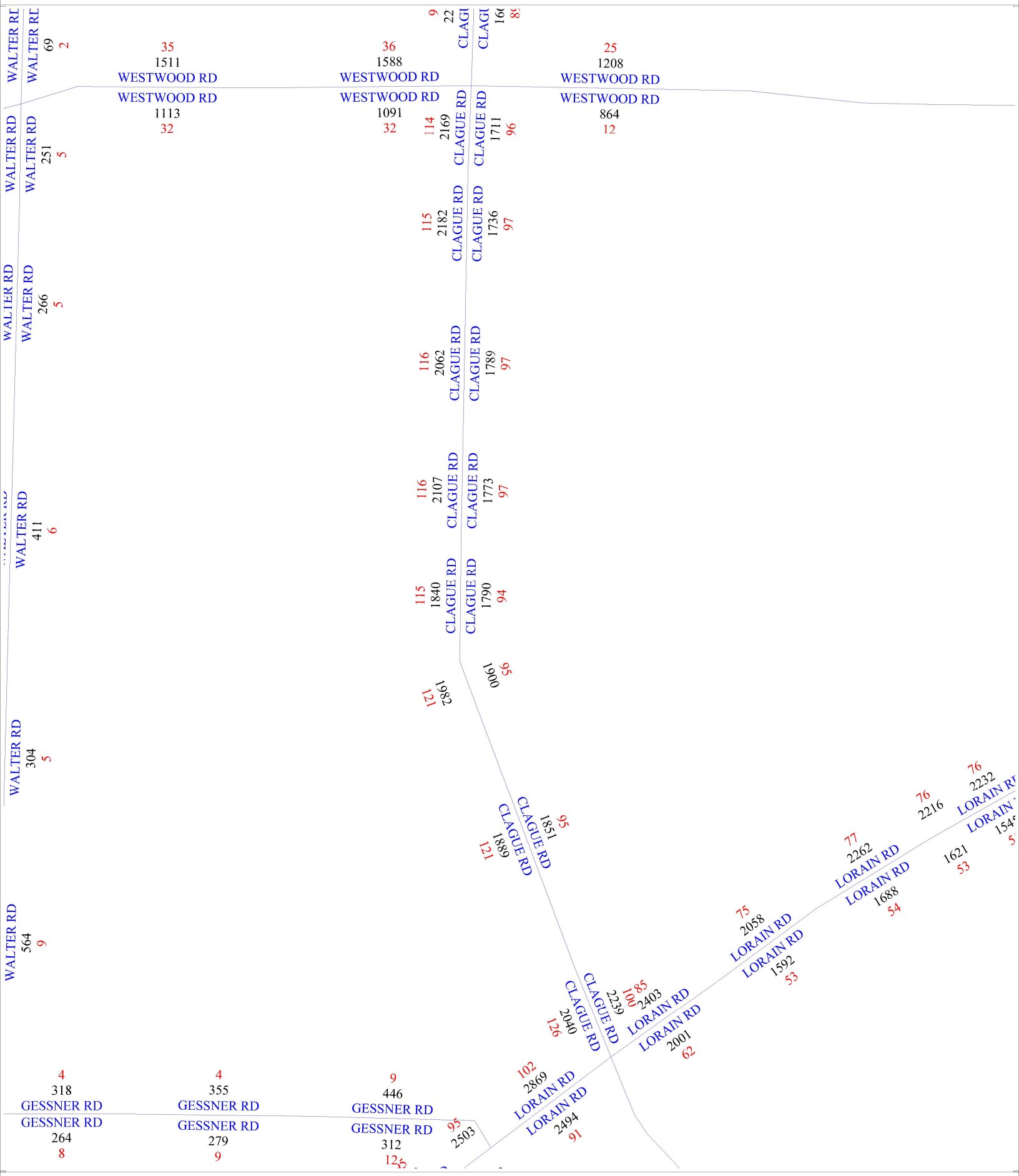
NOACA 2040 Scenario Year
NOACA Travel Forecasting Model
Directional PM Peak Period Auto & Truck Volumes



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C. Left Turn Lane Calculations

STORAGE LENGTH CALCULATION WORKSHEET - SIGNALIZED INTERSECTION
From the ODOT Location & Design Manual (Vol. 1) - Sections 401-9E and 401-10E

Date Competed:	7/21/2020
Completed by:	AC
Checked by:	SJB
Project:	Clague Road Safety Study
Intersection:	Clague Road at Maple Ridge 2024 PM
Approaches Analyzed:	3
Cycle Length Known:	No
Cycle Length (sec):	
Signal Phases:	3
Cycles / Hr	40

Approach:	Street Name:	Design Speed:	
Eastbound	Maple Ridge Road	35	mph
Westbound			mph
Northbound	Clague Road	35	mph
Southbound	Clague Road	35	mph

Notes:

	EB - Maple Ridge Road						NB - Clague Road			SB - Clague Road		
	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt	Lt	Thru	Rt
Volume:		150					120	720			670	70
Demand:							high					low
# Lanes:	0	1	0	1	1	0	1	1	0	1	1	0
Avg Veh/Cycle:	0	4	0	0	0	0	3	18	0	0	17	2
Condition:							A					A
Thru Backup:		175						625			600	
L&D Length (ft)[1]:							200					150
95% Queue (ft)[2]:												

			NB Lt	SB Rt
Recommended Turn Length (ft)[1]:				

[1] includes 50 ft taper

[2] from SimTraffic

[created by Mott MacDonald]

rev. 9/06/2018

Justification for Turn Lane Length Recommendations

Eastbound

Left: n/a Right: n/a

Westbound

Left: n/a Right: n/a

Northbound

Left: n/a Right: n/a

Southbound

Left: n/a Right: n/a

D. Capacity Analysis Results

Existing Condition – No Build

Project:	Clague Road Existing
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,209.0	3.58	10.7	B
2	814.0	2.28	10.1	B
3	1,069.0	3.24	10.9	B
4	94.0	0.40	15.1	B
5	806.0	2.42	10.8	B
6	616.0	1.81	10.6	B
7	2.0	0.00	0.0	A
8	1,195.0	3.61	10.9	B
9	1,207.0	3.37	10.1	B
10	773.0	1.98	9.2	A
Average:	778.5	2.27	9.8	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,606.0	7.20	16.1	B
2	1,319.0	6.44	17.6	B
3	1,560.0	7.20	16.6	B
4	396.0	1.79	16.3	B
5	1,285.0	5.75	16.1	B
6	1,094.0	5.45	17.9	B
7	262.0	1.35	18.5	B
8	1,613.0	7.94	17.7	B
9	1,614.0	7.79	17.4	B
10	1,259.0	6.40	18.3	B
Average:	1,200.8	5.73	17.3	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,396.0	25.90	38.9	D
2	2,088.0	21.71	37.4	D
3	2,337.0	24.27	37.4	D
4	1,179.0	7.80	23.8	C
5	2,069.0	20.96	36.5	D
6	1,831.0	16.39	32.2	C
7	991.0	5.15	18.7	B
8	2,398.0	29.57	44.4	D
9	2,403.0	25.73	38.5	D
10	2,030.0	20.14	35.7	D
Average:	1,972.2	19.76	34.4	C

Project:	Clague Road Existing
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	2.3	1.3	0.0	3.6	10
38	Clague Road & Westwood Road	Actuated	5.7	2.3	1.4	7.9	10
8	Lorain Road & Clague Road	Actuated	19.8	7.9	5.2	29.6	10

Project:	Clague Road Existing
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	9.8	3.8	0.0	15.1	10
38	Clague Road & Westwood Road	Actuated	17.3	0.9	16.1	18.5	10
8	Lorain Road & Clague Road	Actuated	34.4	7.6	18.7	44.4	10

Project:	Clague Road Existing
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,430.0	5.79	14.6	B
2	1,445.0	6.02	15.0	B
3	1,380.0	5.96	15.5	B
4	1,450.0	6.34	15.7	B
5	346.0	1.65	17.2	B
6	895.0	3.59	14.5	B
7	1,429.0	7.05	17.8	B
8	1,449.0	6.29	15.6	B
9	1,435.0	6.38	16.0	B
10	574.0	2.64	16.5	B
Average:	1,183.3	5.17	15.8	B

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,949.0	12.32	22.7	C
2	1,950.0	12.43	22.9	C
3	1,934.0	11.99	22.3	C
4	1,947.0	13.11	24.2	C
5	691.0	4.53	23.6	C
6	1,431.0	8.71	21.9	C
7	1,953.0	12.26	22.6	C
8	1,963.0	12.37	22.7	C
9	1,950.0	12.22	22.6	C
10	1,036.0	6.80	23.6	C
Average:	1,680.4	10.67	22.9	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	3,058.0	53.52	63.0	E
2	3,075.0	54.18	63.4	E
3	3,045.0	53.02	62.7	E
4	3,064.0	54.10	63.6	E
5	1,878.0	31.36	60.1	E
6	2,554.0	39.96	56.3	E
7	3,044.0	52.88	62.5	E
8	3,070.0	53.72	63.0	E
9	3,060.0	53.03	62.4	E
10	2,135.0	36.12	60.9	E
Average:	2,798.3	48.19	61.8	E

Project:	Clague Road Existing
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	5.2	1.8	1.7	7.1	10
38	Clague Road & Westwood Road	Actuated	10.7	2.9	4.5	13.1	10
8	Lorain Road & Clague Road	Actuated	48.2	8.8	31.4	54.2	10

Project:	Clague Road Existing
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	15.8	1.1	14.5	17.8	10
38	Clague Road & Westwood Road	Actuated	22.9	0.7	21.9	24.2	10
8	Lorain Road & Clague Road	Actuated	61.8	2.2	56.3	63.6	10

Project:	Clague Road Existing
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	524.0	2.52	17.3	B
2	1,127.0	5.57	17.8	B
3	1,011.0	5.28	18.8	B
4	134.0	0.80	21.4	C
5	1,077.0	5.93	19.8	B
6	1,110.0	5.36	17.4	B
7	1,117.0	5.49	17.7	B
8	1,129.0	5.28	16.8	B
9	1,118.0	6.03	19.4	B
10	915.0	5.11	20.1	C
Average:	926.2	4.74	18.7	B

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	975.0	4.61	17.0	B
2	1,505.0	7.18	17.2	B
3	1,453.0	6.63	16.4	B
4	505.0	2.43	17.3	B
5	1,504.0	6.85	16.4	B
6	1,503.0	6.87	16.5	B
7	1,512.0	7.14	17.0	B
8	1,494.0	7.04	17.0	B
9	1,500.0	7.71	18.5	B
10	1,412.0	6.51	16.6	B
Average:	1,336.3	6.30	17.0	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,654.0	14.11	30.7	C
2	2,240.0	20.03	32.2	C
3	2,190.0	22.07	36.3	D
4	1,158.0	7.71	24.0	C
5	2,191.0	19.43	31.9	C
6	2,229.0	21.92	35.4	D
7	2,226.0	20.13	32.6	C
8	2,212.0	21.61	35.2	D
9	2,238.0	21.36	34.4	C
10	2,144.0	19.60	32.9	C
Average:	2,048.2	18.80	32.6	C

Project:	Clague Road Existing
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	4.7	1.7	0.8	6.0	10
38	Clague Road & Westwood Road	Actuated	6.3	1.6	2.4	7.7	10
8	Lorain Road & Clague Road	Actuated	18.8	4.5	7.7	22.1	10

Project:	Clague Road Existing
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	18.7	1.5	16.8	21.4	10
38	Clague Road & Westwood Road	Actuated	17.0	0.6	16.4	18.5	10
8	Lorain Road & Clague Road	Actuated	32.6	3.5	24.0	36.3	10

Project:	Clague Road Existing
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	96.0	0.36	13.6	B
2	168.0	0.75	16.1	B
3	1,452.0	6.01	14.9	B
4	248.0	1.07	15.5	B
5	416.0	1.87	16.2	B
6	1,459.0	6.48	16.0	B
7	277.0	1.15	15.0	B
8	1,449.0	5.50	13.7	B
9	107.0	0.38	12.7	B
10	1,442.0	6.28	15.7	B
Average:	711.4	2.99	14.9	B

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	349.0	2.29	23.6	C
2	460.0	3.13	24.5	C
3	1,966.0	13.29	24.3	C
4	578.0	4.84	30.1	C
5	833.0	5.68	24.5	C
6	1,978.0	12.48	22.7	C
7	669.0	3.94	21.2	C
8	1,976.0	13.01	23.7	C
9	490.0	4.21	31.0	C
10	1,981.0	12.02	21.9	C
Average:	1,128.0	7.49	24.8	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,529.0	25.71	60.5	E
2	1,405.0	25.54	65.4	E
3	3,081.0	53.35	62.3	E
4	1,709.0	34.36	72.4	E
5	2,000.0	24.77	44.6	D
6	3,082.0	54.43	63.6	E
7	1,643.0	22.48	49.3	D
8	3,057.0	52.44	61.8	E
9	1,464.0	31.34	77.1	E
10	3,086.0	54.87	64.0	E
Average:	2,205.6	37.93	62.1	E

Project:	Clague Road Existing
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	3.0	2.7	0.4	6.5	10
38	Clague Road & Westwood Road	Actuated	7.5	4.6	2.3	13.3	10
8	Lorain Road & Clague Road	Actuated	37.9	14.1	22.5	54.9	10

Project:	Clague Road Existing
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	14.9	1.2	12.7	16.2	10
38	Clague Road & Westwood Road	Actuated	24.8	3.3	21.2	31.0	10
8	Lorain Road & Clague Road	Actuated	62.1	9.5	44.6	77.1	10

Alternative 1

Project:	Clague Road Proposed
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,107.0	1.82	5.9	A
2	1,097.0	2.00	6.6	A
3	719.0	1.15	5.8	A
4	1,095.0	1.65	5.4	A
5	1,114.0	1.87	6.1	A
6	1,114.0	1.98	6.4	A
7	726.0	1.22	6.0	A
8	318.0	0.60	6.8	A
9	1,114.0	1.79	5.8	A
10	1,108.0	1.74	5.7	A
Average:	951.2	1.58	6.1	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,475.0	6.34	15.5	B
2	1,482.0	6.23	15.1	B
3	1,170.0	5.24	16.1	B
4	1,481.0	6.94	16.9	B
5	1,487.0	6.81	16.5	B
6	1,485.0	6.06	14.7	B
7	1,159.0	4.83	15.0	B
8	651.0	2.87	15.9	B
9	1,474.0	5.99	14.6	B
10	1,491.0	6.72	16.2	B
Average:	1,335.5	5.80	15.7	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,203.0	21.97	35.9	D
2	2,199.0	20.03	32.8	C
3	1,881.0	17.89	34.2	C
4	2,195.0	21.27	34.9	C
5	2,210.0	20.90	34.0	C
6	2,218.0	23.14	37.6	D
7	1,877.0	17.69	33.9	C
8	1,363.0	10.15	26.8	C
9	2,206.0	21.97	35.9	D
10	2,211.0	23.10	37.6	D
Average:	2,056.3	19.81	34.4	C

Project:	Clague Road Proposed
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	1.6	0.5	0.6	2.0	10
38	Clague Road & Westwood Road	Actuated	5.8	1.2	2.9	6.9	10
8	Lorain Road & Clague Road	Actuated	19.8	3.9	10.2	23.1	10

Project:	Clague Road Proposed
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	6.1	0.4	5.4	6.8	10
38	Clague Road & Westwood Road	Actuated	15.7	0.8	14.6	16.9	10
8	Lorain Road & Clague Road	Actuated	34.4	3.1	26.8	37.6	10

Project:	Clague Road Proposed
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,439.0	3.61	9.0	A
2	1,422.0	3.28	8.3	A
3	1,455.0	3.39	8.4	A
4	739.0	1.90	9.3	A
5	1,419.0	3.57	9.0	A
6	1,432.0	3.38	8.5	A
7	1,091.0	2.61	8.6	A
8	1,312.0	3.07	8.4	A
9	193.0	0.53	9.9	A
10	1,437.0	3.63	9.1	A
Average:	1,193.9	2.90	8.9	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,953.0	11.23	20.7	C
2	1,943.0	11.38	21.1	C
3	1,949.0	12.40	22.9	C
4	1,188.0	7.56	22.9	C
5	1,943.0	11.67	21.6	C
6	1,955.0	12.38	22.8	C
7	1,643.0	10.64	23.3	C
8	1,900.0	12.02	22.8	C
9	518.0	3.44	23.9	C
10	1,947.0	11.28	20.9	C
Average:	1,693.9	10.40	22.3	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	3,028.0	51.61	61.4	E
2	3,017.0	52.93	63.2	E
3	3,066.0	54.33	63.8	E
4	2,384.0	38.50	58.1	E
5	3,024.0	53.73	64.0	E
6	3,027.0	54.48	64.8	E
7	2,778.0	46.81	60.7	E
8	3,041.0	52.86	62.6	E
9	1,738.0	19.66	40.7	D
10	3,045.0	53.16	62.8	E
Average:	2,814.8	47.81	60.2	E

Project:	Clague Road Proposed
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	2.9	1.0	0.5	3.6	10
38	Clague Road & Westwood Road	Actuated	10.4	2.8	3.4	12.4	10
8	Lorain Road & Clague Road	Actuated	47.8	11.0	19.7	54.5	10

Project:	Clague Road Proposed
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	8.9	0.5	8.3	9.9	10
38	Clague Road & Westwood Road	Actuated	22.3	1.1	20.7	23.9	10
8	Lorain Road & Clague Road	Actuated	60.2	7.1	40.7	64.8	10

Project:	Clague Road Proposed
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,133.0	2.19	7.0	A
2	1,129.0	2.22	7.1	A
3	312.0	0.65	7.5	A
4	827.0	1.70	7.4	A
5	589.0	1.32	8.1	A
6	1,144.0	2.10	6.6	A
7	1,124.0	2.26	7.2	A
8	1,095.0	2.08	6.8	A
9	1,118.0	2.34	7.5	A
10	1,128.0	2.25	7.2	A
Average:	959.9	1.91	7.2	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,499.0	7.18	17.3	B
2	1,504.0	6.94	16.6	B
3	675.0	3.49	18.6	B
4	1,271.0	6.03	17.1	B
5	1,015.0	4.76	16.9	B
6	1,505.0	7.36	17.6	B
7	1,509.0	7.22	17.2	B
8	1,490.0	7.10	17.2	B
9	1,512.0	6.96	16.6	B
10	1,498.0	6.91	16.6	B
Average:	1,347.8	6.40	17.2	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,241.0	20.92	33.6	C
2	2,220.0	21.14	34.3	C
3	1,380.0	10.46	27.3	C
4	2,017.0	17.60	31.4	C
5	1,722.0	14.40	30.1	C
6	2,254.0	21.62	34.5	C
7	2,241.0	22.43	36.0	D
8	2,226.0	22.98	37.2	D
9	2,234.0	22.80	36.7	D
10	2,238.0	21.17	34.0	C
Average:	2,077.3	19.55	33.5	C

Project:	Clague Road Proposed
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	1.9	0.5	0.7	2.3	10
38	Clague Road & Westwood Road	Actuated	6.4	1.3	3.5	7.4	10
8	Lorain Road & Clague Road	Actuated	19.6	4.1	10.5	23.0	10

Project:	Clague Road Proposed
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	7.2	0.4	6.6	8.1	10
38	Clague Road & Westwood Road	Actuated	17.2	0.6	16.6	18.6	10
8	Lorain Road & Clague Road	Actuated	33.5	3.1	27.3	37.2	10

Project:	Clague Road Proposed
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	296.0	0.73	8.8	A
2	1,473.0	3.81	9.3	A
3	1,469.0	3.99	9.8	A
4	1,463.0	4.07	10.0	B
5	1,247.0	3.42	9.9	A
6	1,452.0	3.91	9.7	A
7	1,476.0	4.31	10.5	B
8	1,452.0	3.68	9.1	A
9	949.0	2.73	10.4	B
10	1,444.0	3.54	8.8	A
Average:	1,272.1	3.42	9.6	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	628.0	4.13	23.7	C
2	1,976.0	12.90	23.5	C
3	1,992.0	12.95	23.4	C
4	1,977.0	14.04	25.6	C
5	1,857.0	11.43	22.2	C
6	1,978.0	12.23	22.3	C
7	1,978.0	12.40	22.6	C
8	1,986.0	12.66	22.9	C
9	1,514.0	9.63	22.9	C
10	1,960.0	12.07	22.2	C
Average:	1,784.6	11.44	23.1	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,855.0	30.06	58.3	E
2	3,097.0	53.86	62.6	E
3	3,066.0	54.31	63.8	E
4	3,077.0	55.21	64.6	E
5	2,972.0	51.50	62.4	E
6	3,068.0	54.14	63.5	E
7	3,098.0	54.18	63.0	E
8	3,072.0	54.84	64.3	E
9	2,654.0	43.12	58.5	E
10	3,048.0	54.39	64.2	E
Average:	2,900.7	50.56	62.5	E

Project:	Clague Road Proposed
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	3.4	1.0	0.7	4.3	10
38	Clague Road & Westwood Road	Actuated	11.4	2.8	4.1	14.0	10
8	Lorain Road & Clague Road	Actuated	50.6	8.0	30.1	55.2	10

Project:	Clague Road Proposed
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	9.6	0.6	8.8	10.5	10
38	Clague Road & Westwood Road	Actuated	23.1	1.0	22.2	25.6	10
8	Lorain Road & Clague Road	Actuated	62.5	2.3	58.3	64.6	10

Alternative 2

Project:	Clague Road Proposed TWLTL
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,101.0	2.15	7.0	A
2	1,107.0	2.19	7.1	A
3	1,105.0	2.37	7.7	A
4	1,109.0	1.96	6.4	A
5	1,108.0	2.00	6.5	A
6	1,102.0	2.06	6.7	A
7	1,108.0	2.12	6.9	A
8	1,115.0	2.23	7.2	A
9	1,110.0	1.94	6.3	A
10	1,107.0	2.11	6.9	A
Average:	1,107.2	2.11	6.9	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,476.0	6.18	15.1	B
2	1,487.0	6.42	15.5	B
3	1,479.0	6.08	14.8	B
4	1,478.0	5.90	14.4	B
5	1,495.0	6.30	15.2	B
6	1,479.0	5.75	14.0	B
7	1,483.0	6.36	15.4	B
8	1,483.0	6.13	14.9	B
9	1,473.0	6.02	14.7	B
10	1,482.0	6.52	15.8	B
Average:	1,481.5	6.17	15.0	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,186.0	22.18	36.5	D
2	2,211.0	21.50	35.0	D
3	2,207.0	21.83	35.6	D
4	2,208.0	22.39	36.5	D
5	2,201.0	22.18	36.3	D
6	2,203.0	22.43	36.6	D
7	2,200.0	21.22	34.7	C
8	2,212.0	21.95	35.7	D
9	2,200.0	22.23	36.4	D
10	2,205.0	21.97	35.9	D
Average:	2,203.3	21.99	35.9	D

Project:	Clague Road Proposed TWLTL
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	2.1	0.1	1.9	2.4	10
38	Clague Road & Westwood Road	Actuated	6.2	0.2	5.8	6.5	10
8	Lorain Road & Clague Road	Actuated	22.0	0.4	21.2	22.4	10

Project:	Clague Road Proposed TWLTL
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	6.9	0.4	6.3	7.7	10
38	Clague Road & Westwood Road	Actuated	15.0	0.5	14.0	15.8	10
8	Lorain Road & Clague Road	Actuated	35.9	0.7	34.7	36.6	10

Project:	Clague Road Proposed TWLTL
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,444.0	4.15	10.3	B
2	1,444.0	4.37	10.9	B
3	1,455.0	4.17	10.3	B
4	1,435.0	3.84	9.6	A
5	1,447.0	4.19	10.4	B
6	1,440.0	4.04	10.1	B
7	1,454.0	4.37	10.8	B
8	1,458.0	3.57	8.8	A
9	1,441.0	3.58	8.9	A
10	1,456.0	3.90	9.6	A
Average:	1,447.4	4.02	10.0	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,960.0	12.50	23.0	C
2	1,946.0	11.88	22.0	C
3	1,950.0	12.23	22.6	C
4	1,960.0	12.10	22.2	C
5	1,954.0	11.09	20.4	C
6	1,961.0	12.34	22.7	C
7	1,959.0	12.84	23.6	C
8	1,963.0	12.05	22.1	C
9	1,957.0	11.90	21.9	C
10	1,943.0	11.43	21.2	C
Average:	1,955.3	12.04	22.2	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	3,056.0	53.48	63.0	E
2	3,045.0	52.49	62.1	E
3	3,066.0	54.64	64.2	E
4	3,045.0	54.14	64.0	E
5	3,067.0	52.45	61.6	E
6	3,070.0	53.73	63.0	E
7	3,059.0	54.09	63.7	E
8	3,053.0	53.05	62.6	E
9	3,057.0	53.85	63.4	E
10	3,066.0	53.58	62.9	E
Average:	3,058.4	53.55	63.1	E

Project:	Clague Road Proposed TWLTL
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	4.0	0.3	3.6	4.4	10
38	Clague Road & Westwood Road	Actuated	12.0	0.5	11.1	12.8	10
8	Lorain Road & Clague Road	Actuated	53.6	0.7	52.5	54.6	10

Project:	Clague Road Proposed TWLTL
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	10.0	0.7	8.8	10.9	10
38	Clague Road & Westwood Road	Actuated	22.2	0.9	20.4	23.6	10
8	Lorain Road & Clague Road	Actuated	63.1	0.8	61.6	64.2	10

Project:	Clague Road Proposed TWLTL
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,132.0	2.21	7.0	A
2	1,141.0	2.27	7.2	A
3	1,121.0	2.05	6.6	A
4	1,124.0	2.11	6.7	A
5	1,134.0	1.92	6.1	A
6	1,119.0	2.16	7.0	A
7	1,132.0	2.31	7.3	A
8	1,130.0	2.14	6.8	A
9	1,122.0	2.38	7.6	A
10	1,109.0	2.06	6.7	A
Average:	1,126.4	2.16	6.9	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,504.0	6.32	15.1	B
2	1,511.0	6.51	15.5	B
3	1,512.0	6.68	15.9	B
4	1,502.0	6.73	16.1	B
5	1,498.0	6.65	16.0	B
6	1,498.0	6.78	16.3	B
7	1,499.0	6.51	15.6	B
8	1,516.0	6.83	16.2	B
9	1,503.0	6.88	16.5	B
10	1,497.0	6.79	16.3	B
Average:	1,504.0	6.67	16.0	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,242.0	21.09	33.9	C
2	2,230.0	21.32	34.4	C
3	2,240.0	21.22	34.1	C
4	2,240.0	21.34	34.3	C
5	2,239.0	22.16	35.6	D
6	2,216.0	20.43	33.2	C
7	2,242.0	21.55	34.6	C
8	2,225.0	20.90	33.8	C
9	2,228.0	23.09	37.3	D
10	2,231.0	20.08	32.4	C
Average:	2,233.3	21.32	34.4	C

Project:	Clague Road Proposed TWLTL
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	2.2	0.1	1.9	2.4	10
38	Clague Road & Westwood Road	Actuated	6.7	0.2	6.3	6.9	10
8	Lorain Road & Clague Road	Actuated	21.3	0.8	20.1	23.1	10

Project:	Clague Road Proposed TWLTL
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	6.9	0.4	6.1	7.6	10
38	Clague Road & Westwood Road	Actuated	16.0	0.4	15.1	16.5	10
8	Lorain Road & Clague Road	Actuated	34.4	1.3	32.4	37.3	10

Project:	Clague Road Proposed TWLTL
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,451.0	3.69	9.1	A
2	1,463.0	3.80	9.4	A
3	1,480.0	4.23	10.3	B
4	1,462.0	3.70	9.1	A
5	1,445.0	3.40	8.5	A
6	1,466.0	3.90	9.6	A
7	1,474.0	4.04	9.9	A
8	1,453.0	3.77	9.3	A
9	1,448.0	3.75	9.3	A
10	1,451.0	3.86	9.6	A
Average:	1,459.3	3.81	9.4	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,972.0	12.27	22.4	C
2	1,992.0	12.24	22.1	C
3	1,984.0	12.43	22.6	C
4	1,988.0	12.93	23.4	C
5	1,974.0	11.96	21.8	C
6	1,969.0	13.25	24.2	C
7	1,984.0	12.83	23.3	C
8	1,985.0	12.28	22.3	C
9	1,987.0	13.58	24.6	C
10	1,970.0	12.35	22.6	C
Average:	1,980.5	12.61	22.9	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	3,058.0	53.27	62.7	E
2	3,069.0	53.84	63.2	E
3	3,098.0	55.43	64.4	E
4	3,078.0	55.09	64.4	E
5	3,050.0	54.26	64.0	E
6	3,040.0	53.67	63.6	E
7	3,084.0	54.24	63.3	E
8	3,056.0	54.60	64.3	E
9	3,074.0	53.57	62.7	E
10	3,081.0	54.51	63.7	E
Average:	3,068.8	54.25	63.6	E

Project:	Clague Road Proposed TWLTL
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	3.8	0.2	3.4	4.2	10
38	Clague Road & Westwood Road	Actuated	12.6	0.5	12.0	13.6	10
8	Lorain Road & Clague Road	Actuated	54.2	0.7	53.3	55.4	10

Project:	Clague Road Proposed TWLTL
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	9.4	0.5	8.5	10.3	10
38	Clague Road & Westwood Road	Actuated	22.9	0.9	21.8	24.6	10
8	Lorain Road & Clague Road	Actuated	63.6	0.6	62.7	64.4	10

Alternative 3

Project:	Clague Road Proposed NB LTL
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,107.0	2.24	7.3	A
2	1,107.0	2.58	8.4	A
3	168.0	0.31	6.6	A
4	774.0	1.54	7.1	A
5	1,104.0	2.43	7.9	A
6	1,113.0	2.02	6.5	A
7	552.0	1.23	8.0	A
8	966.0	2.04	7.6	A
9	1,113.0	2.41	7.8	A
10	1,107.0	2.29	7.4	A
Average:	911.1	1.91	7.5	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,482.0	6.47	15.7	B
2	1,489.0	6.43	15.5	B
3	562.0	2.68	17.2	B
4	1,236.0	5.41	15.8	B
5	1,479.0	6.62	16.1	B
6	1,488.0	6.78	16.4	B
7	990.0	4.44	16.1	B
8	1,426.0	5.88	14.8	B
9	1,485.0	6.59	16.0	B
10	1,482.0	6.56	15.9	B
Average:	1,311.9	5.79	16.0	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,207.0	22.14	36.1	D
2	2,191.0	23.37	38.4	D
3	1,188.0	8.21	24.9	C
4	1,963.0	17.84	32.7	C
5	2,185.0	21.45	35.3	D
6	2,205.0	21.15	34.5	C
7	1,688.0	15.61	33.3	C
8	2,152.0	20.86	34.9	C
9	2,208.0	22.13	36.1	D
10	2,198.0	23.01	37.7	D
Average:	2,018.5	19.58	34.4	C

Project:	Clague Road Proposed NB LTL
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	1.9	0.7	0.3	2.6	10
38	Clague Road & Westwood Road	Actuated	5.8	1.3	2.7	6.8	10
8	Lorain Road & Clague Road	Actuated	19.6	4.7	8.2	23.4	10

Project:	Clague Road Proposed NB LTL
Scenario:	2024 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	7.5	0.6	6.5	8.4	10
38	Clague Road & Westwood Road	Actuated	16.0	0.6	14.8	17.2	10
8	Lorain Road & Clague Road	Actuated	34.4	3.8	24.9	38.4	10

Project:	Clague Road Proposed NB LTL
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	969.0	2.85	10.6	B
2	1,469.0	3.74	9.2	A
3	1,434.0	3.70	9.3	A
4	1,446.0	4.49	11.2	B
5	1,452.0	4.31	10.7	B
6	1,416.0	4.03	10.2	B
7	1,220.0	3.27	9.7	A
8	283.0	0.84	10.7	B
9	1,008.0	3.45	12.3	B
10	1,076.0	2.81	9.4	A
Average:	1,177.3	3.35	10.3	B

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,455.0	8.94	22.1	C
2	1,959.0	12.24	22.5	C
3	1,947.0	12.81	23.7	C
4	1,934.0	11.97	22.3	C
5	1,950.0	12.06	22.3	C
6	1,932.0	11.93	22.2	C
7	1,832.0	11.16	21.9	C
8	621.0	4.25	24.6	C
9	1,547.0	10.24	23.8	C
10	1,661.0	10.38	22.5	C
Average:	1,683.8	10.60	22.8	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	2,671.0	43.70	58.9	E
2	3,054.0	54.76	64.5	E
3	3,035.0	53.90	63.9	E
4	3,010.0	53.05	63.5	E
5	3,055.0	54.91	64.7	E
6	3,011.0	53.64	64.1	E
7	2,948.0	51.26	62.6	E
8	1,664.0	27.40	59.3	E
9	2,667.0	44.24	59.7	E
10	2,797.0	48.37	62.3	E
Average:	2,791.2	48.52	62.4	E

Project:	Clague Road Proposed NB LTL
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	3.3	1.0	0.8	4.5	10
38	Clague Road & Westwood Road	Actuated	10.6	2.5	4.3	12.8	10
8	Lorain Road & Clague Road	Actuated	48.5	8.5	27.4	54.9	10

Project:	Clague Road Proposed NB LTL
Scenario:	2024 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	10.3	1.0	9.2	12.3	10
38	Clague Road & Westwood Road	Actuated	22.8	0.9	21.9	24.6	10
8	Lorain Road & Clague Road	Actuated	62.4	2.2	58.9	64.7	10

Project:	Clague Road Proposed NB LTL
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	677.0	1.39	7.4	A
2	65.0	0.15	8.1	A
3	358.0	0.73	7.3	A
4	1,112.0	2.17	7.0	A
5	1,139.0	2.38	7.5	A
6	192.0	0.47	8.8	A
7	1,126.0	2.62	8.4	A
8	1,023.0	2.14	7.5	A
9	1,069.0	2.16	7.3	A
10	1,124.0	2.36	7.6	A
Average:	788.5	1.66	7.7	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,129.0	5.45	17.4	B
2	430.0	2.40	20.1	C
3	736.0	3.41	16.7	B
4	1,500.0	7.11	17.1	B
5	1,504.0	7.18	17.2	B
6	522.0	2.30	15.8	B
7	1,510.0	6.78	16.2	B
8	1,473.0	6.87	16.8	B
9	1,484.0	7.03	17.0	B
10	1,505.0	6.78	16.2	B
Average:	1,179.3	5.53	17.1	B

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,841.0	16.25	31.8	C
2	1,076.0	6.64	22.2	C
3	1,439.0	10.16	25.4	C
4	2,230.0	21.04	34.0	C
5	2,233.0	22.00	35.5	D
6	1,225.0	8.64	25.4	C
7	2,227.0	21.61	34.9	C
8	2,214.0	21.70	35.3	D
9	2,196.0	19.28	31.6	C
10	2,225.0	20.95	33.9	C
Average:	1,890.6	16.83	31.0	C

Project:	Clague Road Proposed NB LTL
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	1.7	0.9	0.2	2.6	10
38	Clague Road & Westwood Road	Actuated	5.5	2.0	2.3	7.2	10
8	Lorain Road & Clague Road	Actuated	16.8	6.1	6.6	22.0	10

Project:	Clague Road Proposed NB LTL
Scenario:	2044 AM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	08:00:00 - 09:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	7.7	0.6	7.0	8.8	10
38	Clague Road & Westwood Road	Actuated	17.1	1.2	15.8	20.1	10
8	Lorain Road & Clague Road	Actuated	31.0	4.9	22.2	35.5	10

Project:	Clague Road Proposed NB LTL
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Overview

CLAGUE ROAD & MAPLE RIDGE ROAD -- SIGNALIZED NODE: 5

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,454.0	4.09	10.1	B
2	1,476.0	4.08	9.9	A
3	397.0	0.93	8.5	A
4	705.0	1.77	9.0	A
5	1,478.0	3.94	9.6	A
6	1,459.0	3.80	9.4	A
7	362.0	1.03	10.3	B
8	1,114.0	2.47	8.0	A
9	1,449.0	4.59	11.4	B
10	1,272.0	3.29	9.3	A
Average:	1,116.6	3.00	9.6	A

CLAGUE ROAD & WESTWOOD ROAD -- SIGNALIZED NODE: 38

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	1,973.0	12.95	23.6	C
2	1,981.0	12.52	22.8	C
3	817.0	4.82	21.2	C
4	1,177.0	7.96	24.3	C
5	1,977.0	13.49	24.6	C
6	1,979.0	13.83	25.2	C
7	760.0	4.58	21.7	C
8	1,704.0	10.35	21.9	C
9	1,982.0	12.18	22.1	C
10	1,894.0	12.29	23.4	C
Average:	1,624.4	10.50	23.1	C

LORAIN ROAD & CLAGUE ROAD -- SIGNALIZED NODE: 8

Run	Number of Vehicles	Total Control Delay (hr)	Avg Control Delay (sec/veh)	Level of Service
1	3,079.0	53.62	62.7	E
2	3,103.0	54.07	62.7	E
3	1,815.0	30.88	61.2	E
4	2,297.0	33.99	53.3	D
5	3,123.0	54.54	62.9	E
6	3,083.0	54.86	64.1	E
7	1,779.0	29.62	59.9	E
8	2,837.0	48.72	61.8	E
9	3,053.0	53.10	62.6	E
10	3,017.0	53.14	63.4	E
Average:	2,718.6	46.65	61.5	E

Project:	Clague Road Proposed NB LTL
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Total Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	3.0	1.4	0.9	4.6	10
38	Clague Road & Westwood Road	Actuated	10.5	3.5	4.6	13.8	10
8	Lorain Road & Clague Road	Actuated	46.7	10.6	29.6	54.9	10

Project:	Clague Road Proposed NB LTL
Scenario:	2044 PM
Run(s):	Batch (10 runs)
Simulated:	Various
Time:	16:00:00 - 17:00:00
Interval:	Summary
Selection:	Signalized Intersections

Intersection LOS - Avg Control Delay

Node ID	Intersection	Control Type	Average	Std Dev	Minimum	Maximum	# Samples
5	Clague Road & Maple Ridge Road	Actuated	9.6	1.0	8.0	11.4	10
38	Clague Road & Westwood Road	Actuated	23.1	1.4	21.2	25.2	10
8	Lorain Road & Clague Road	Actuated	61.5	3.1	53.3	64.1	10

E. Public Involvement Summary

MOTT MACDONALD

CITY of NORTH OLMSTED

August 2020

Clague Road Corridor Study

Public Outreach Summary

Jun-July 2020
Existing Traffic + Safety Analysis

August 5th-21st
Public Outreach

Aug-Sep 2020
Assess Options + Explore Funding Strategies

Sep-Oct 2020
Refine Options + Apply for Safety Funding

2021-2024
Engineering + Construction

Preliminary public outreach for the Clague Road Corridor Study includes a project website, a Public Information Session and an online survey. Due to the COVID-19 pandemic, public outreach was conducted entirely virtually.

On August 5th, the project team kicked off the 17-day public outreach with a Public Information Session. This session outlined background and initial traffic analysis for the Clague Road study area, the project team also encouraged the public to visit the Clague Road Corridor Study project website, participate in the online Survey and get in touch with the project team.

The online survey received 190 responses from the public. Over 90% of them are residents from the City of North Olmsted. And over 50% participants use Clague Road at least once a day.

The public outreach gauged the experience of local residents and road users, and shaped the development of this corridor study. The valuable input reflects the needs and concerns of the public, and expressed the community's interest in supporting the safety improvements on Clague Road.

Opportunities and Concerns We Heard

Safe Driving

- Adding turning lanes may improve traffic flow
- Enforce speed limited and traffic regulation
- Reduce congestion

Safe Crossing

- Install signalized crosswalk at Clague Park
- Safe crosswalk along the corridor

Active Transportation

- Resurface sidewalk and road
- Improved lighting and signage

The survey received 28 detailed comments regarding turn lanes. Of which, 10 indicated their support of a two-way left-turn lane down the center of Clague Road, 8 comments mentioned they would like to see a left turn lane at intersections as they have experienced the most traffic backup at intersections on Clague - especially at the Clague-Lorain intersection, 3 had expressed that adding turn lanes on Clague will reduce congestion and improve road safety, but they do not have a preference on the location of turn lanes. Seven comments said they do not support road widening or adding turn lanes, as they believe such measures will encourage faster vehicle speed and increase traffic volume, ultimately altering the residential neighborhood characteristic and not contributing to road safety improvement.

Apart from the main opportunities and concerns, the public also expressed their concerns about the perceived safety of using Clague Road. As a minor arterial connecting I-90 and I-480, Clague Road experiences heavy through and local traffic. Local residents would like to maintain the residential neighborhood characteristic, and see improvement on Clague Road that will reduce congestion, improve vehicle turning movement and increase safe crossing along the corridor.

* A wordcloud highlighting the survey comment themes by font size

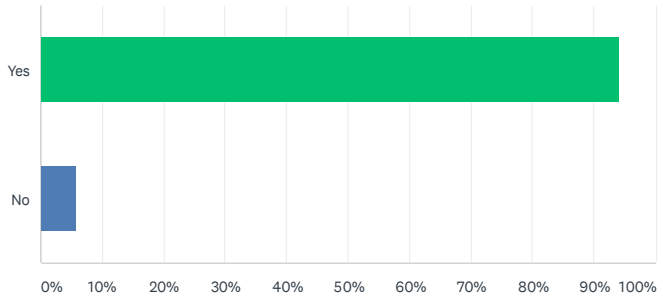
Get in Touch

Kim Lieber, AICP
Director of Planning and Community Development
City of North Olmsted
lieberk@north-olmsted.com

CITY of NORTH OLMSTED

Q1 Do you reside in North Olmsted?

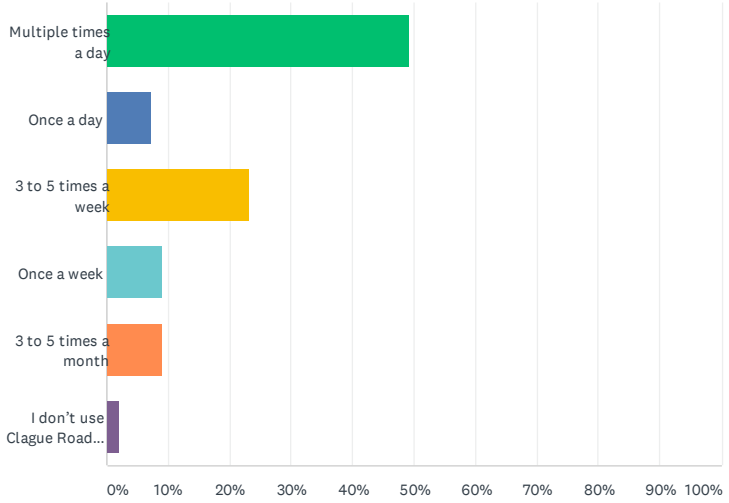
Answered: 189 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	94.18%	178
No	5.82%	11
TOTAL		189

Q2 How often do you use the Clague Road section identified in the study area map?

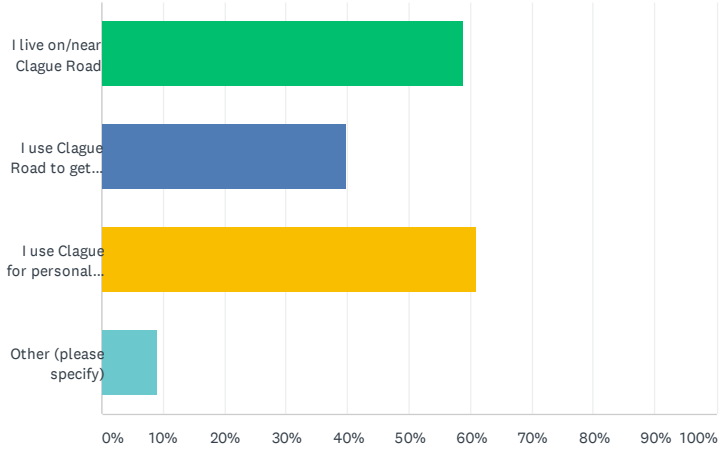
Answered: 189 Skipped: 1



ANSWER CHOICES	RESPONSES	
Multiple times a day	49.21%	93
Once a day	7.41%	14
3 to 5 times a week	23.28%	44
Once a week	8.99%	17
3 to 5 times a month	8.99%	17
I don't use Clague Road often or ever	2.12%	4
TOTAL		189

Q3 What is the typical purpose of your trip on Clague Road? Select all that apply.

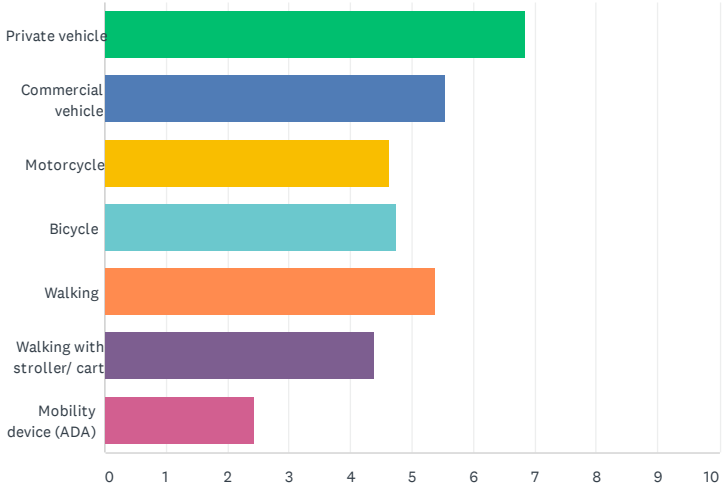
Answered: 189 Skipped: 1



ANSWER CHOICES	RESPONSES	
I live on/near Clague Road	58.73%	111
I use Clague Road to get to/from work	39.68%	75
I use Clague for personal trips	60.85%	115
Other (please specify)	8.99%	17
Total Respondents: 189		

Q4 Which modes of transportation do you use on Clague Road? Please rank from 1-most often to 7-least often, N/A for not applicable.

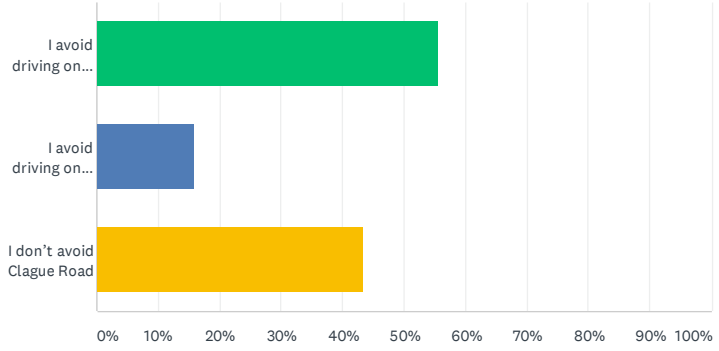
Answered: 189 Skipped: 1



	1	2	3	4	5	6	7	N/A	TOTAL	SCORE
Private vehicle	87.98% 161	5.46% 10	1.64% 3	0.55% 1	0.00% 0	1.09% 2	0.00% 0	3.28% 6	183	6.84
Commercial vehicle	2.90% 4	7.25% 10	3.62% 5	0.00% 0	2.17% 3	0.00% 0	0.00% 0	84.06% 116	138	5.55
Motorcycle	0.00% 0	6.38% 9	3.55% 5	4.26% 6	0.71% 1	1.42% 2	0.71% 1	82.98% 117	141	4.63
Bicycle	0.00% 0	10.96% 16	24.66% 36	10.27% 15	3.42% 5	1.37% 2	0.68% 1	48.63% 71	146	4.75
Walking	3.33% 5	34.00% 51	14.00% 21	6.00% 9	0.67% 1	2.67% 4	0.67% 1	38.67% 58	150	5.37
Walking with stroller/ cart	2.16% 3	2.16% 3	10.07% 14	5.04% 7	2.16% 3	2.16% 3	1.44% 2	74.82% 104	139	4.40
Mobility device (ADA)	0.73% 1	1.46% 2	0.00% 0	0.00% 0	0.73% 1	1.46% 2	5.84% 8	89.78% 123	137	2.43

Q5 Do you avoid driving on parts or all of this corridor because you consider it too congested or unsafe? Select all that apply.

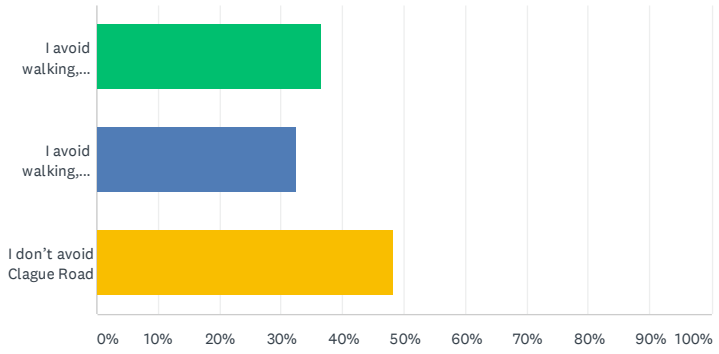
Answered: 189 Skipped: 1



ANSWER CHOICES	RESPONSES	
I avoid driving on Clague Road because I consider it to be congested / busy	55.56%	105
I avoid driving on Clague Road because I consider it to be unsafe	15.87%	30
I don't avoid Clague Road	43.39%	82
Total Respondents: 189		

Q6 Do you avoid walking, biking, or other non-vehicle travel on all or parts of this corridor because you consider it too busy or unsafe? Select all that apply.

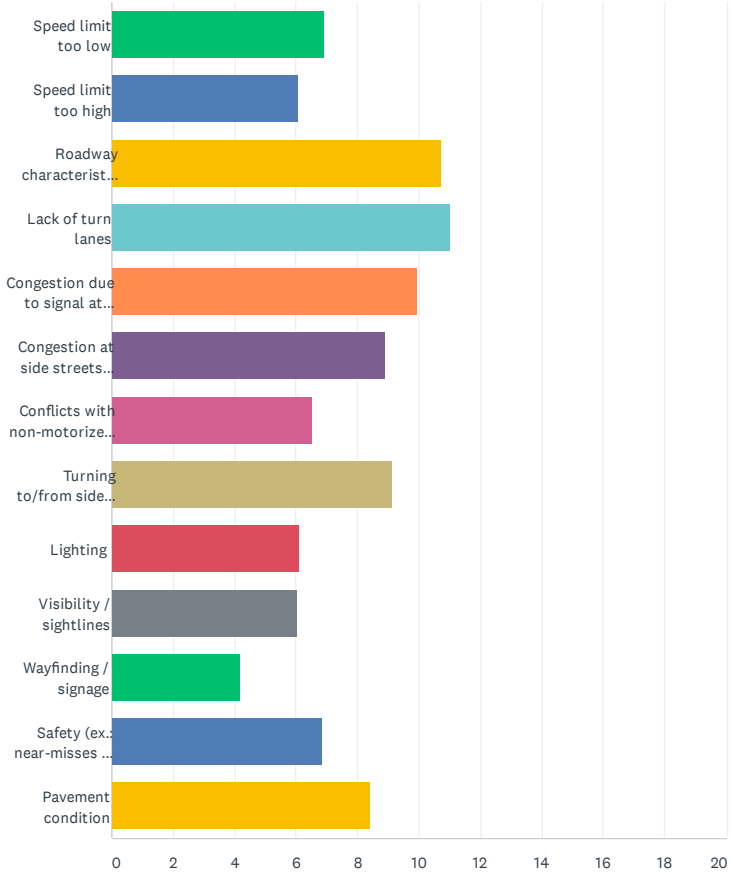
Answered: 188 Skipped: 2



ANSWER CHOICES	RESPONSES	
I avoid walking, biking, or other non-vehicle travel on Clague Road because I consider it to be congested / busy	36.70%	69
I avoid walking, biking, or other non-vehicle travel on Clague Road because I consider it to be unsafe	32.45%	61
I don't avoid Clague Road	48.40%	91
Total Respondents: 188		

Q7 What are the issues for drivers on Clague Road? Please rank from 1-most important to 13-least important, N/A for ‘not an issue for me’.

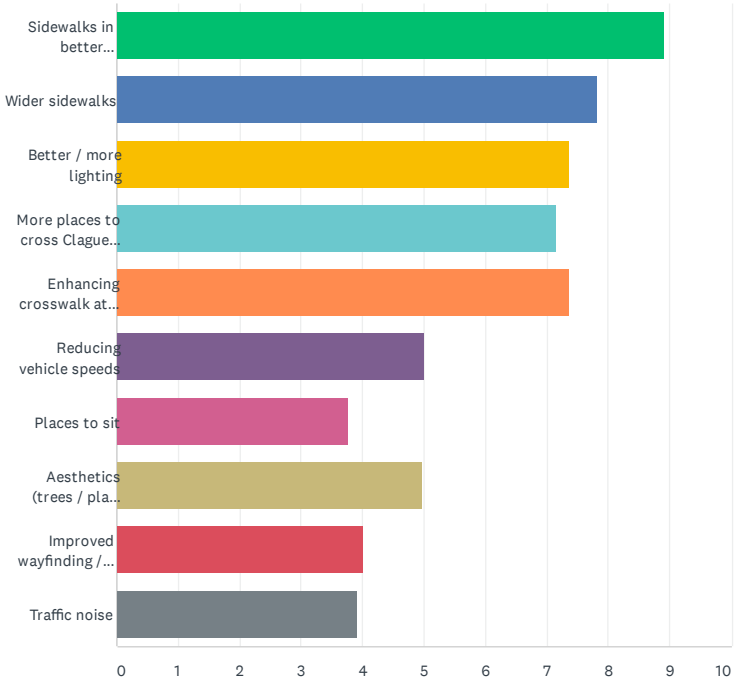
Answered: 190 Skipped: 0



	1	2	3	4	5	6	7	8	9	10	11	12	13	N/
Speed limit too low	8.89% 16	3.33% 6	0.56% 1	4.44% 8	2.78% 5	1.11% 2	1.67% 3	2.22% 4	2.22% 4	5.56% 10	3.33% 6	3.33% 6	7.22% 13	53
Speed limit too high	1.09% 2	3.80% 7	4.89% 9	2.72% 5	2.72% 5	3.80% 7	3.80% 7	0.54% 1	3.80% 7	0.54% 1	1.09% 2	9.24% 17	7.61% 14	54
Roadway characteristics (ex: narrow lanes, Lack of curb, lack of roadway definition, etc.)	25.42% 45	15.25% 27	14.12% 25	9.60% 17	11.30% 20	2.26% 4	5.08% 9	2.26% 4	0.56% 1	0.56% 1	1.13% 2	0.56% 1	0.00% 0	11
Lack of turn lanes	26.29% 46	20.57% 36	16.00% 28	13.14% 23	5.71% 10	4.57% 8	1.71% 3	2.86% 5	0.57% 1	0.57% 1	0.00% 0	0.57% 1	0.00% 0	7
Congestion due to signal at Maple Ridge intersection	11.30% 20	18.64% 33	11.30% 20	11.86% 21	12.43% 22	8.47% 15	5.65% 10	3.39% 6	0.56% 1	1.69% 3	1.13% 2	0.56% 1	0.00% 0	12
Congestion at side streets (non-signalized)	4.05% 7	8.67% 15	13.29% 23	13.87% 24	10.98% 19	16.18% 28	11.56% 20	4.05% 7	1.73% 3	1.73% 3	1.73% 3	1.73% 3	0.00% 0	10
Conflicts with non-motorized users (pedestrians, cyclists, etc.)	1.70% 3	0.57% 1	6.25% 11	3.41% 6	5.11% 9	7.95% 14	9.66% 17	9.09% 16	6.25% 11	3.98% 7	6.25% 11	3.98% 7	3.41% 6	32
Turning to/from side streets/driveways	6.67% 12	11.67% 21	10.00% 18	14.44% 26	14.44% 26	11.67% 21	6.67% 12	7.78% 14	5.00% 9	1.67% 3	0.56% 1	0.56% 1	0.00% 0	8
Lighting	1.10% 2	1.66% 3	3.87% 7	1.66% 3	1.10% 2	4.97% 9	11.05% 20	13.26% 24	11.60% 21	8.29% 15	6.08% 11	1.10% 2	2.21% 4	32
Visibility / sightlines	0.00% 0	2.82% 5	1.69% 3	3.95% 7	3.39% 6	5.65% 10	6.78% 12	13.56% 24	10.73% 19	14.69% 26	7.34% 13	1.13% 2	0.00% 0	28
Wayfinding / signage	0.00% 0	0.56% 1	1.12% 2	0.56% 1	2.25% 4	2.25% 4	1.69% 3	0.56% 1	11.24% 20	11.24% 20	14.61% 26	10.11% 18	2.81% 5	41
Safety (ex.: near-misses or crashes)	4.37% 8	6.56% 12	4.92% 9	6.01% 11	8.20% 15	5.46% 10	7.10% 13	7.65% 14	2.73% 5	6.56% 12	5.46% 10	8.20% 15	5.46% 10	21
Pavement condition	11.60% 21	7.73% 14	11.05% 20	8.29% 15	12.15% 22	10.50% 19	6.63% 12	2.21% 4	3.87% 7	3.31% 6	3.87% 7	2.21% 4	6.63% 12	9

Q8 What are your priorities for improving the experience for walking, biking, or other non-vehicle travel on Clague Road? Please rank from 1-most important to 10-least important, N/A for 'not a priority for me'.

Answered: 187 Skipped: 3



	1	2	3	4	5	6	7	8	9	10	N/A	TOTAL	SCORE
Sidewalks in better condition	44.25% 77	17.82% 31	7.47% 13	4.60% 8	2.87% 5	1.72% 3	2.87% 5	0.00% 0	0.57% 1	0.00% 0	17.82% 31	174	8.92
Wider sidewalks	8.24% 14	22.94% 39	15.29% 26	10.59% 18	7.06% 12	2.94% 5	2.94% 5	1.18% 2	0.00% 0	0.00% 0	28.82% 49	170	7.83
Better / more lighting	9.47% 16	14.79% 25	14.79% 25	10.65% 18	11.24% 19	5.33% 9	1.18% 2	2.96% 5	1.18% 2	0.59% 1	27.81% 47	169	7.36
More places to cross Clague Road	8.19% 14	8.19% 14	19.30% 33	19.30% 33	11.70% 20	7.02% 12	3.51% 6	2.92% 5	0.00% 0	0.00% 0	19.88% 34	171	7.15
Enhancing crosswalk at Little Clague Park	16.28% 28	11.05% 19	12.79% 22	11.05% 19	17.44% 30	5.23% 9	3.49% 6	2.33% 4	0.58% 1	0.58% 1	19.19% 33	172	7.37
Reducing vehicle speeds	2.35% 4	4.71% 8	4.12% 7	2.35% 4	4.12% 7	14.12% 24	7.06% 12	5.29% 9	1.76% 3	7.06% 12	47.06% 80	170	5.01
Places to sit	0.00% 0	1.16% 2	2.31% 4	1.16% 2	4.62% 8	4.62% 8	13.87% 24	7.51% 13	10.40% 18	5.20% 9	49.13% 85	173	3.77
Aesthetics (trees / plants / flowers)	3.45% 6	4.60% 8	4.60% 8	6.90% 12	4.02% 7	8.62% 15	6.32% 11	16.09% 28	6.32% 11	2.87% 5	36.21% 63	174	4.97
Improved wayfinding / signage	2.33% 4	2.91% 5	1.74% 3	4.07% 7	2.33% 4	6.40% 11	5.81% 10	7.56% 13	17.44% 30	5.23% 9	44.19% 76	172	4.01
Traffic noise	2.31% 4	4.05% 7	4.62% 8	4.05% 7	2.89% 5	2.89% 5	6.36% 11	4.62% 8	7.51% 13	19.65% 34	41.04% 71	173	3.91

Q9 Is there anything else you'd like to share or ask at this time?

Answered: 113 Skipped: 77

#	RESPONSES	DATE
1	Re pave and widen the road if possible please	8/21/2020 6:41 PM
2	Eliminating left turns would greatly reduce accidents and congestion. Widen the lanes as more delivery trucks are stopping causing backups.	8/21/2020 11:18 AM
3	Nope, I drive Clague Road from Lorain to I-90 about 15 times per week.	8/21/2020 9:48 AM
4	No	8/20/2020 9:11 AM
5	Virtually impossible to turn left from Delmere onto Clague during either rush or 11 to noon.	8/19/2020 7:07 PM
6	Congestion due to no turn lanes is bad	8/19/2020 8:54 AM
7	Please improve the crosswalk for Little Clague Park. Currently the flashing lights are too high up and hard to see. No signs low saying state law to stop when flashing. I have witnessed many close call pedestrian hits by cars. I do not believe this crosswalk currently meets state or county standards.	8/18/2020 9:46 PM
8	No	8/18/2020 9:04 AM
9	Entrance to the Starbucks and Church need a turning lane..	8/18/2020 6:15 AM
10	NA	8/17/2020 9:17 AM
11	No	8/17/2020 7:34 AM
12	no	8/16/2020 4:41 PM
13	Clague needs a center turn lane all the way down from Lorain to Center Ridge. Use eminent domain to reduce the tree lawns, which belong to the city, to do so. There needs to be more cross walks that have some variation of sensor controlled activation. There are numerous high school students (who should receive school bus transportation any way) who put their lives at risk to cross Clague to get RTA busses both ways.	8/16/2020 1:37 PM
14	Any work done on Clague Rd causes Walter Rd to be used as an alternative. Walter is not conducive to increased traffic and creates danger for pedestrians, especially elderly and children.	8/16/2020 8:05 AM
15	Na	8/15/2020 2:54 PM
16	Widen out the road for turning lanes on the north side of Lorain	8/15/2020 2:41 PM
17	I don’t live near the road and I thank god for that every day	8/15/2020 1:12 PM
18	Bike lanes are always a welcomed addition.	8/15/2020 9:20 AM
19	Yes, just remember if you do this project. There are residents that live off Clauge and will still have to get to work. I live on Marion and I take the entire length of claugue to Lorain.	8/15/2020 9:05 AM
20	Please fix it and improve the lighting.	8/15/2020 8:41 AM
21	The Clague Lorain intersection is dangerous. The corridor in question needs to be completely repaved. Traffic heading south during rush hour makes me avoid Clague. Making left out of Delmere onto Clague is horrible.	8/15/2020 7:57 AM
22	Better, more pleasing signage for Clague Park on Clague Road and entrance to the park is needed.	8/15/2020 7:16 AM
23	thank you	8/15/2020 2:12 AM
24	No	8/14/2020 10:56 PM
25	I feel that prior to fixing a street at the far end of the community, tax payers money should be used to fix the well known sewer issues. This issue is prevalent throughout all of North Olmsted and would benefit all community members. The Clague Road project seems like it effects far less people in the community. Additionally, some aspects on the survey are not necessities, such as appearance and large walkways. Safety and function should only be considered. Lastly, I feel that this survey was a bit confusing with the ranking from 1-13.	8/14/2020 10:12 PM
26	Too much congestion and near accidents near Starbucks plaza on Clague and Lorain	8/14/2020 10:09 PM

27	I have lived on Clague road most of my life, 50+ years, traffic has changed, I believe it has decreased. Adding better crosswalks, curbs so cars do not use tree lawns as a passing lanes and new asphalt will make the roadway better. Adding a center turn line will help with traffic flow, but will increase the speed of the traffic on this residential street, which is not good for the residents, only good for the cars/people passing through. If the restrictions of flow; ie: side streets, driveways; are eased by the addition of a turning lane, this will increase the traffic speed, and likely increase traffic accidents and more problems crossing this street	8/14/2020 10:07 PM
28	This road should be widened to have a turning lane down the middle	8/14/2020 6:16 PM
29	More turn lanes for side streets, wider sidewalks	8/14/2020 5:37 PM
30	No, thanks.	8/14/2020 5:18 PM
31	Do not screw over the residents on Clague like you did to those on Stearns. This city government and planning department is only worried about money and raising taxes. They don't care about the citizens needs, if you are going to widen the road making the street less friendly to live on, buy out the homeowners and redevelop the land so people can find less congested areas to live. Just like you promised with Stearns Road. The residents on Stearns are still waiting for the developers considering it is now a four lane highway with cars traveling 55+ at times. And if cars aren't speeding it is bumper to bumper traffic with a 5-10 minute wait to get out of your driveway.	8/14/2020 4:31 PM
32	Widening the road to allow for some kind of shoulder / bike path would be great. This is a problem in North Olmsted generally, and on Clague in particular. The sidewalks are not maintained by the city and are not in appropriate shape for biking (nor should people be biking on sidewalks, anyway).	8/14/2020 4:02 PM
33	Needs bike lanes!!!!	8/14/2020 3:59 PM
34	No	8/14/2020 2:53 PM
35	no	8/14/2020 12:36 PM
36	At many times during the day, turning left (from west to travel north) is almost impossible. Traffic is a considerable factor. Residential landscaping also limits visibility, especially at Lebern Drive.	8/14/2020 12:25 PM
37	N/A	8/14/2020 12:23 PM
38	Clague Road is in terrible condition. The road is filled with holes and ridiculous bumps. I try to avoid the street, but unfortunately cannot since we live so close to it! Turning onto the street can take a long time, traffic is awful from both sides (I live in between the Maple and Westwood traffic light). The sidewalks are also terrible, as we like to take bike rides often. It would be amazing to fix it up!!!	8/14/2020 11:52 AM
39	A consistent problem on Clague is cars DO NOT stop for school buses. Ask the bus drivers. I would love better traffic flow on Clague, but that may increase the problem of drivers speeding right by them too. So maybe from that perspective I would think about size of sidewalks or size of aprons, etc. and whether it brings kids waiting for buses closer to or further from the street.	8/14/2020 10:43 AM
40	no	8/14/2020 10:32 AM
41	The flashing yellow at Little Clague Park needs to be converted to a full signal. Even if the full signal is flashing yellow most of the time with the ability to turn red, it would be an improvement. Currently, cars fly right through the crossing and it's very unsafe for children.	8/14/2020 10:28 AM
42	Na	8/14/2020 10:27 AM
43	It needs to be wider with turning lanes	8/14/2020 10:27 AM
44	As a home owner at the corner of Frank and Clague, I am concerned about reducing the yard space in front of the house. In the early morning hours (2-5 am) there have been 2 accidents in the last 5 years resulting in the guard rail being mangles or cutting through my front lawn and hitting the neighbors house. The slight turn in the road at this location makes it dangerous particularly with impaired drivers. Widening/ adding lanes will result in my house being closer to the street and possibly more proan to being struck by irresponsible drivers.	8/14/2020 10:19 AM
45	N/A	8/14/2020 9:50 AM

46	No	8/14/2020 9:49 AM
47	I have lived on Clague road most of my life. Grew up here and and then moved back. The crosswalk at little Clague Park is ridiculous. No one pays attention to it. Clague road is treated like a highway. I do not want the road widened. The traffic is very loud and the last thing I want is it to be closer to my front door. Is 35 mile per hour speed limit needs to be enforced.	8/14/2020 9:21 AM
48	I am concerned about the speed of traffic and the disregard people have for the traffic light on clague and mapleridge. Too many people run that red light during morning and afternoon time when children are walking to school. Reduce the speed in that area like all other areas are during those times	8/14/2020 9:13 AM
49	Widen the street and make a center turn lane	8/14/2020 8:47 AM
50	If possible this street should change from a single lane north and south to two lanes north and south.	8/14/2020 8:40 AM
51	N/A	8/14/2020 8:40 AM
52	Turning lane would be huge improvement	8/14/2020 8:16 AM
53	No	8/14/2020 7:58 AM
54	No I think this covered everything.	8/14/2020 7:51 AM
55	N/A	8/14/2020 7:50 AM
56	n/a	8/14/2020 7:45 AM
57	Get it done!	8/14/2020 7:40 AM
58	No	8/14/2020 7:14 AM
59	A middle turn lane would be great. We live off of clagur and getti g out is sometimes a pain due to someone trying to turn n.	8/14/2020 6:57 AM
60	Time all the traffic Lights to reduce stop and go	8/14/2020 6:42 AM
61	No	8/14/2020 6:15 AM
62	Thank you for asking residents :)	8/13/2020 11:56 PM
63	The blind spots (curves) near Maple Ridge, Carriage and Sharon need to be considered	8/13/2020 11:56 PM
64	No.	8/13/2020 11:48 PM
65	no	8/13/2020 11:35 PM
66	As a resident living across from little clague park I have witnessed many people almost getting hit and some get hot and killed due to crosswalk being ignored at little clague park	8/13/2020 11:28 PM
67	I'd love to see a bike lane put in since you can take clague down to mastick and into the metro parks.	8/13/2020 11:18 PM
68	A center turn lane would be nice. Actual curbs, too.	8/13/2020 11:15 PM
69	I have lived off of Clague, North of Lorain, for all but 3 years of my life. It has always been a nightmare to turn onto or off the side streets. We have needed a full turn lane since the early 80's and I am really hoping we finally get it. Everyones life will be a lot easier and commutes will go smoother.	8/13/2020 11:11 PM
70	I couldn't say I avoid clague because I live on LeBern. It gets WAY too busy. I often can't get out of my street (if going left / north from my street. If I had known it would be this bad, I would not have purchased a home on my street. I often see little kids waiting for ever to cross at little clague park and that's when they use the xing sign.	8/13/2020 11:01 PM
71	More trees and flowers	8/13/2020 10:54 PM
72	No	8/13/2020 10:37 PM
73	No	8/13/2020 10:29 PM
74	Lower taxes	8/13/2020 10:28 PM

75	Red light at Clague Park	8/13/2020 10:28 PM
76	N/A	8/13/2020 10:17 PM
77	I would suggest a bike lane since folks ride bikes in and out of little Clague Park.	8/13/2020 10:13 PM
78	Please improve crossing signal at North Olmsted Clague Park entrance. PLEASE!!	8/13/2020 10:07 PM
79	No	8/13/2020 9:58 PM
80	No	8/13/2020 9:54 PM
81	No	8/13/2020 9:50 PM
82	Maple is the worst, roads second. I don't see speed as in issue but I don't live there, only drive	8/13/2020 9:49 PM
83	Please look at the crossing at Little Clague Park. Many times the light will be flashing but it is hard to see and you do not see it until it is too late to stop.	8/13/2020 10:08 AM
84	I believe that a turning lane for the entire length of the road would be good. Unrelated, can you work on the on and off ramps at 480? Traffic backs up on to the highway at rush-hour and is very dangerous	8/12/2020 9:43 PM
85	Is the Clague-Lorain intersection under review. Lanes are tight and traffic congestion is prevalent.	8/12/2020 10:31 AM
86	make sure any amenities are sustainable. having flowers that need watering and care, and putting in benches and planters that get destroyed by road salt is not a good use of money. larger street trees would be nice, there is a wide tree lawn area.	8/12/2020 7:53 AM
87	I live on Alexander Road and frequently walk across Clague to the park. It is a struggle to get anyone to obey the traffic laws to let me cross the street. I am seriously concerned for any children that need to cross the street there	8/11/2020 7:24 AM
88	Just get people to slow down!	8/10/2020 11:40 AM
89	Na	8/9/2020 4:25 PM
90	No	8/9/2020 9:46 AM
91	No	8/8/2020 2:09 PM
92	No	8/8/2020 8:56 AM
93	Trying to turn out of a side street at certain times of the day is difficult, better traffic flow is needed	8/7/2020 9:09 PM
94	No	8/7/2020 4:32 PM
95	I live on clague rd. And I can see the clague park cross walk and it is horrible in the nice weather. People do not slow down or even stop, we stood there for 5 mins one time for my sons baseball game and not one car stopped the lights were flashing, it took another parent to stop traffic with their car when they were trying to turn in and when we were halfway crossing the street the cars still were not stopping. We had kids with us too. It is unsafe for kids to cross, people are constantly speeding by even when the kids are standing close to the street. I have been honked at for turning to slow into my driveway on multiple occasions. People are very aggressive when driving on clague rd. I have to turn on my signal way before my house bc I am afraid of getting rear ended (most of the time my children are in the car with me) I try to pick my kids up from school and try not to go anywhere from 3 to 6. I would love a turn lane but I worry that I am going to lose some of my front yard. We have a decent size front yard and I dont want the road closer to my house. My sister now lives in my grandmas house on clague and she had a car almost go through the front of her house. The drive was drinking and go south on clague the small bend by maple ridge, he was going to fast and lost control. It was scary. I've grown up on this street so i am use to the noise. My children are not allowed to play in the front of our house bc the cars fly down the street when it isnt busy, the cars fly even when it is busy. And garbage day.....we watch the cars play Russian roulette trying to pass the garbage truck.	8/7/2020 3:42 PM
96	I live very close to the Maple Ridge intersection. When I was commuting to work pre-COVID, I often struggled to get out of my driveway due to the congestion there. I would have to aggressively assert my space to get in the north-bound lane (on my side of the street), and	8/7/2020 3:32 PM

	motorists would often block my driveway. I would have to lay on my horn until they got the message. That said, I would gladly accept all these inconveniences to prevent Clague from becoming a three-lane road. I hate the aesthetics of Clague south of Lorain to 480. Clague loses all its residential feel because of the greater space dedicated to cars and pavement. Please limit changes to Maple Ridge to just a dedicated left-turn lane. The aesthetics of Clague are so important to me, as I like walking with my daughter to the park or to the Sharon neighborhood. Please don't turn my home into just a commuter street.	
97	Cars do not abide by the pedestrian crossing at little Clague Park.	8/7/2020 3:27 PM
98	Please include a bike lane.	8/7/2020 2:53 PM
99	I have been working from home since COVID and do use Clague as often anymore. Although, since COVID I have been running and walking locally more often. It would be great to see some additional sidewalk improvements as well.	8/7/2020 7:31 AM
100	I included signage in one of the questions, because Clague Rd is supposed to be restricted for trucks over a certain weight limit, yet there is a constant flow of large trucks over that weight restriction. There is signage posted, but it is not sufficient. Also, there is little to no enforcement for overweight trucks. There needs to be more signage and enforcement, so that the truckers get used the facts that this is not a state route, and there is a weight limit with restrictions and penalties. The heavy truck traffic is probably a major reason for the decaying road conditions.	8/6/2020 4:31 PM
101	I wish there were unlimited funds to make Sharon and Maple ridge a cross roads instead of a zig zag I live off of Sharon dr. I only go to clague if I'm going north You can't make a left turn very well because of traffic and sight lines. Also I'm guessing the water puddling on clague will be fixed with the resurfacing?	8/6/2020 1:22 PM
102	1. Where there are turning lanes (Delmere & Maple) some reckless drivers will aggressively drive around onto grass. Is this situation made safer with a wider footprint or just enables more misbehavior? 2. Is the land immediately next to Clague on each side suitable enough for widening?	8/6/2020 11:06 AM
103	dont' even think about not adding a left hand lane during this re-paving. there is room. from lorain road to the westlake line.	8/6/2020 10:27 AM
104	I live on a side street off Clague Rd. During high traffic peaks it can take several minutes to turn off my street onto Clague. Not having a turn lane also causes back ups when turning onto side streets from Clague. I think adding a center turn lane and turn lane at Maple is the improvement that will most improve traffic flow on Clague.	8/6/2020 9:05 AM
105	No	8/6/2020 8:08 AM
106	Sideways need replaced. Can't ride your bike on Clague roads sidewalks	8/6/2020 7:22 AM
107	The crosswalk at Little Clague does not work. It is totally unsafe for any one other than an Adult. About half the time I cross there cars ignore the flashing lights and drive thru the crosswalk. I would never let children cross there. I live in the neighborhood across from the park and it would be nice if my kid could utilize it some day by himself, but he won't unless the crosswalk is improved. It NEEDS a traffic light that turns RED to stop clague traffic so you can cross. It would also help people coming out of and into the park. Coming off Alexander its typically impossible to make a left hand turn on to clague. If i want to go to freeway i go up W231 to Lorain instead. It would be more direct for me to go straight up clague to freeway to work but I avoid it both in morning and night because it is so congested. The section south of lorain to 480 is terrible as well. Hope you can improve clague especially the crosswalk situation.	8/5/2020 9:47 PM
108	The cross walk at Little Clague Park needs major improvements. It is a nightmare to try to cross Clague to the park especially with a stroller. Most people completely ignore the current flashing lights that signal needing to yield to pedestrians. I have complained about this to City Council multiple times, and have been told I would get updates, but then nothing was ever done. It is not a safe place that I would let an older kid cross at alone. It needs a traffic light that that switches to red so cars stop and pedestrians can cross. This would also help people driving out of the park.	8/5/2020 9:35 PM
109	No one stops for the Clague park sign. The light is hard to see, the road raises up so you can't see the intersection particularly those that speed. A good thing might be those digital 35 miles	8/5/2020 7:52 PM

	speed indicators.	
110	We enjoy the public sidewalks but I think they do need fixed on the entire street as very uneven and old. Hope this project makes it look better. Thank you	8/5/2020 7:48 PM
111	No	8/5/2020 7:34 PM
112	No	8/5/2020 6:56 PM
113	I live about 100 yards from the intersection of Clague and Lorain (across the street from the plaza with Starbucks). I will say that turning left towards Lorain is one of the worst experiences I've ever had to deal with. I also know that those turning left out of the Starbucks/Robek's plaza towards I-90 are dealing with terrible traffic. That signal always gets so backed up, and motorists driving north on Clague from I-480 drive so fast, making it dangerous turning left out of either of those entrances.	8/5/2020 5:56 PM

F. ECAT Analysis Results

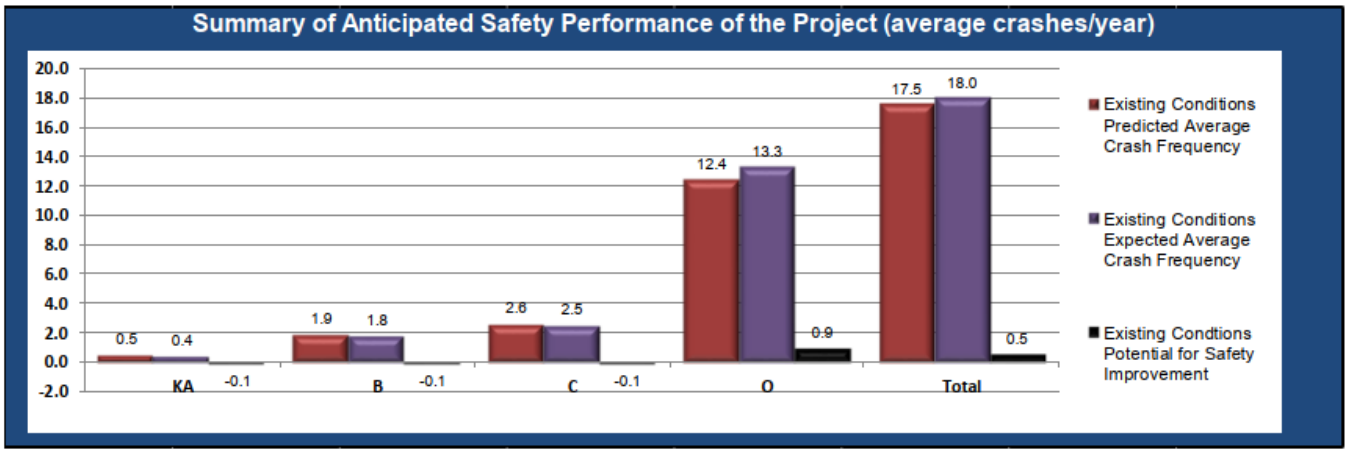
MOTT MACDONALD

Clague Road Corridor Study
Preferred Alternative
Conceptual Estimate of Probable Costs

Item	Unit	Unit Cost $ (2020)	Quantity	Total $
General Construction Costs				
Primary Cost Drivers				
Roadway				
Misc. Earthwork	Lump	$5,000	1	$5,000
curb	foot	$11	1,400	$15,400
4" Concrete Walk	Sq. Ft	$7	100	$700
Curb Ramp	Sq. Ft	$15	450	$6,750
Erosion Control				
Misc. Erosion Control	Lump	$5,000	1	$5,000
Drainage				
Misc. Drainage	Lump	$5,000	1	$5,000
Underdrains	Foot	$12	1,400	$16,800
Pavement				
Asphalt Pavement	Sq. Yd.	$95	900	$85,500
Traffic Control				
PHB	Each	$65,000	1	$65,000
Lump S&PM	Lump	$2,500	1	$2,500
Traffic Signals				
Traffic Signals	Each	$125,000	1	$125,000
Traffic Signal Removal	Each	$3,000	1	$3,000
Primary Cost Drivers Subtotal				$336,000
Incidentals				
Maintenance of Traffic *	Lump			$0
Construction Layout Stakes*	Lump			$0
Field Office, Type B*	Month			$0
Mobilization*	Lump			$0
Contingencies (30%)	Lump			$100,800
Summary of Probable Total Construction Costs 2020				$437,000
Inflation at 9.2% for 2024 Construction				$41,000
Total Probable Construction Costs 2024				$478,000
Construction Inspection Cost*				$0
Summary of Probable Total Project Costs 2024				$480,000

*associated costs to be included in County sponsored resurfacing project

Clague Road Corridor - Existing Conditions PSI



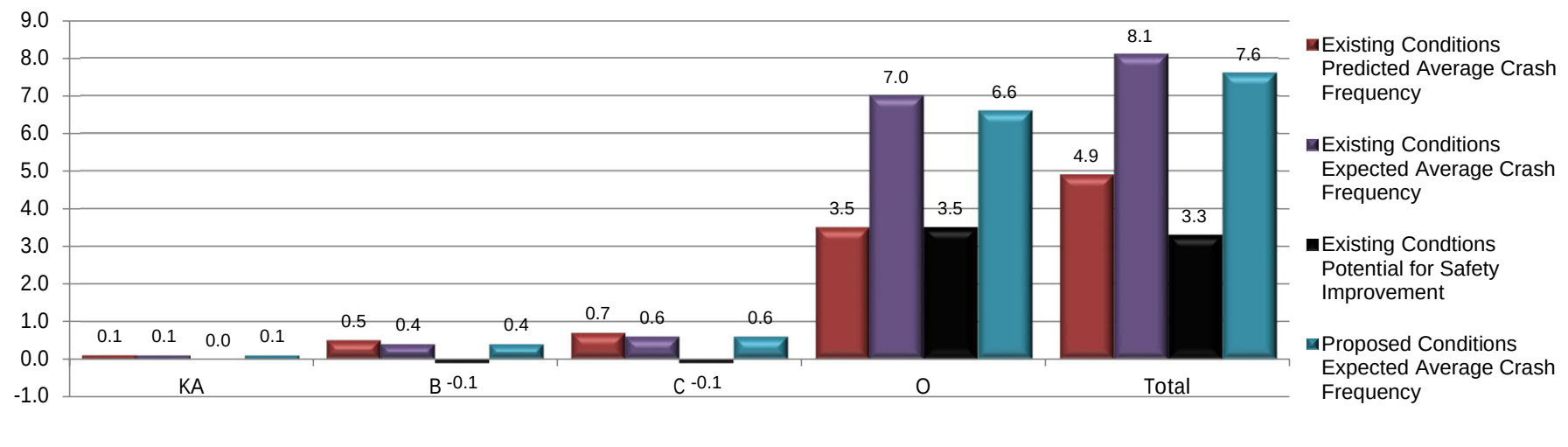
Corridor Location	Site Type	Potential for Safety Improvement
Delmere Dr	Intersection	***0.55***
Delmere Dr to Maple Ridge Rd	Segment	***0.89***
Frank St/Sharon Dr	Intersection	***0.71***
Maple Ridge Rd to Alexander Rd	Segment	***0.15***
Ambour Dr/Westchester Dr	Intersection	***0.17***
Stoneybrook Rd	Intersection	***0.12***

Project Safety Performance Report

General Information

Project Name	Clague Road Corridor Study	Contact Email	alejandro.chock@mottmac.com
Project Description	Clague Road Corridor Study Proposed Alternatives	Contact Phone	216-535-3650
Reference Number	102764	Date Performed	8/27/2020
Analyst	AC	Analysis Year	2020
Agency/Company	Mott MacDonald		

Summary of Anticipated Safety Performance of the Project (average crashes/year)



Project Summary Results (Without Animal Crashes)

	KA	B	C	O	Total
$N_{predicted}$ - Existing Conditions	0.1164	0.5290	0.7467	3.4702	4.8623
$N_{expected}$ - Existing Conditions	0.0957	0.4329	0.6047	7.0165	8.1498
$N_{potential\ for\ improvement}$ - Existing Conditions	-0.0207	-0.0961	-0.1420	**3.5463**	**3.2875**
$N_{expected}$ - Proposed Conditions	0.0904	0.4087	0.5712	6.5744	7.6447

Project Safety Performance Report

General Information

Project Name	Clague Road Corridor Study	Contact Email	alejandro.chock@mottmac.com
Project Description	Clague Road Corridor Study Proposed Alternatives	Contact Phone	216-535-3650
Reference Number	102764	Date Performed	8/27/2020
Analyst	AC	Analysis Year	2020
Agency/Company	Mott MacDonald		

Existing Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR52; 1.615	Clague Road @ Maple Ridge Road	0.095	0.4322	0.6041	3.0059	4.1372
CR52; 1.892	Little Clague Park	0.0214	0.0968	0.1426	0.4643	0.7251

Project Safety Performance Report

General Information

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Project Description	Clague Road Corridor Study Proposed Alternatives	Contact Phone	216-535-3650
Reference Number	102764	Date Performed	8/27/2020
Analyst	AC	Analysis Year	2020
Agency/Company	Mott MacDonald		

Existing Conditions Project Element Expected Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR52; 1.615	Clague Road @ Maple Ridge Road	0.0784	0.3513	0.4828	6.316	7.2285
CR52; 1.892	Little Clague Park	0.0173	0.0816	0.1219	0.7005	0.9213

Project Safety Performance Report

General Information

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Project Description	Clague Road Corridor Study Proposed Alternatives	Contact Phone	216-535-3650
Reference Number	102764	Date Performed	8/27/2020
Analyst	AC	Analysis Year	2020
Agency/Company	Mott MacDonald		

Existing Conditions Project Element Potential for Safety Improvement Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR52; 1.615	Clague Road @ Maple Ridge Road	-0.0166	-0.0809	-0.1213	3.3101	3.0913
CR52; 1.892	Little Clague Park	-0.0041	-0.0152	-0.0207	0.2362	0.1962

Project Safety Performance Report

General Information

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Proposed Conditions Project Element Expected Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR52; 1.615	Clague Road @ Maple Ridge Road	0.0731	0.3271	0.4493	5.8739	6.7234
CR52; 1.892	Little Clague Park	0.0173	0.0816	0.1219	0.7005	0.9213

Project Safety Performance Report

ECAT Economic Crash Analysis Tool

General Information

Project Name	Clague Road Corridor Study	Contact Email	alejandro.chock@mottmac.com
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Summary by Crash Type

Crash Type	Existing			Proposed
	Predicted Crash Frequency	Expected Crash Frequency	PSI	Expected Crash Frequency
Unknown	0.0027	0.0034	**0.0007**	0.0032
Head On	0.0298	0.0370	**0.0072**	0.0348
Rear End	2.3100	3.4375	**1.1276**	3.2282
Backing	0.1176	0.1974	**0.0798**	0.1852
Sideswipe - Meeting	0.0660	0.0943	**0.0284**	0.0886
Sideswipe - Passing	0.5582	0.8964	**0.3382**	0.8414
Angle	0.8465	1.1994	**0.3529**	1.1268
Parked Vehicle	0.0942	0.1225	**0.0284**	0.1154
Pedestrian	0.0138	0.0055	-0.0083	0.0060
Animal	0.0000	0.0000	0.0000	0.0000
Train	0.0002	0.0002	0.0000	0.0002
Pedalcycles	0.1329	0.1183	-0.0146	0.1104
Other Non-Vehicle	0.0000	0.0000	0.0000	0.0000
Fixed Object	0.1550	0.1930	**0.0380**	0.1818
Other Object	0.0054	0.0070	**0.0016**	0.0066
Overturning	0.0092	0.0099	**0.0007**	0.0094
Other Non-Collision	0.0204	0.0260	**0.0055**	0.0245
Left Turn	0.5004	0.6724	**0.1719**	0.6319
Right Turn	0.0000	0.0000	0.0000	0.0000

Safety Benefit - Cost Analysis

General Information

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Project Description	Clague Road Corridor Study Proposed Alternatives	Contact Phone	216-535-3650
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Select Site Types to be used in Benefit-Cost Analysis:

All Sites

Comments:

Countermeasure Service Lives, Costs, and Safety Benefits

Countermeasures	Service Life (Years)	Initial Cost of Countermeasure	Annual Maintenance & Energy Costs	Salvage Value	Net Present Cost of Countermeasure	Total Cost of Countermeasures	Summary of Annual Crash Modifications	Net Present Value of Safety Benefits
Install NB LTL at Clague/Maple Ridge	20	$480,000.00			$480,000.00	$480,000.00	-0.505	$124,517
Site Characteristic Improvements (Please add description about improvements i.e. Lighting)					$0.00	$0.00		
Site Characteristic Improvements (Please add description about improvements i.e. Signal Phasing)					$0.00	$0.00		
Site Characteristic Improvements (Please add description about improvements i.e. Added Right Turn Lane)					$0.00	$0.00		
CMF 1 - Installation of a High intensity Activated crossWalK (HAWK) pedestrian-activated beacon at an intersection	20				$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
					$0.00	$0.00	0.000	$0
Totals		$480,000.00	$0.00	$0.00	$480,000.00	$480,000.00	-0.505	$124,517

Safety Benefit - Cost Analysis

General Information

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Benefit - Cost Calculator

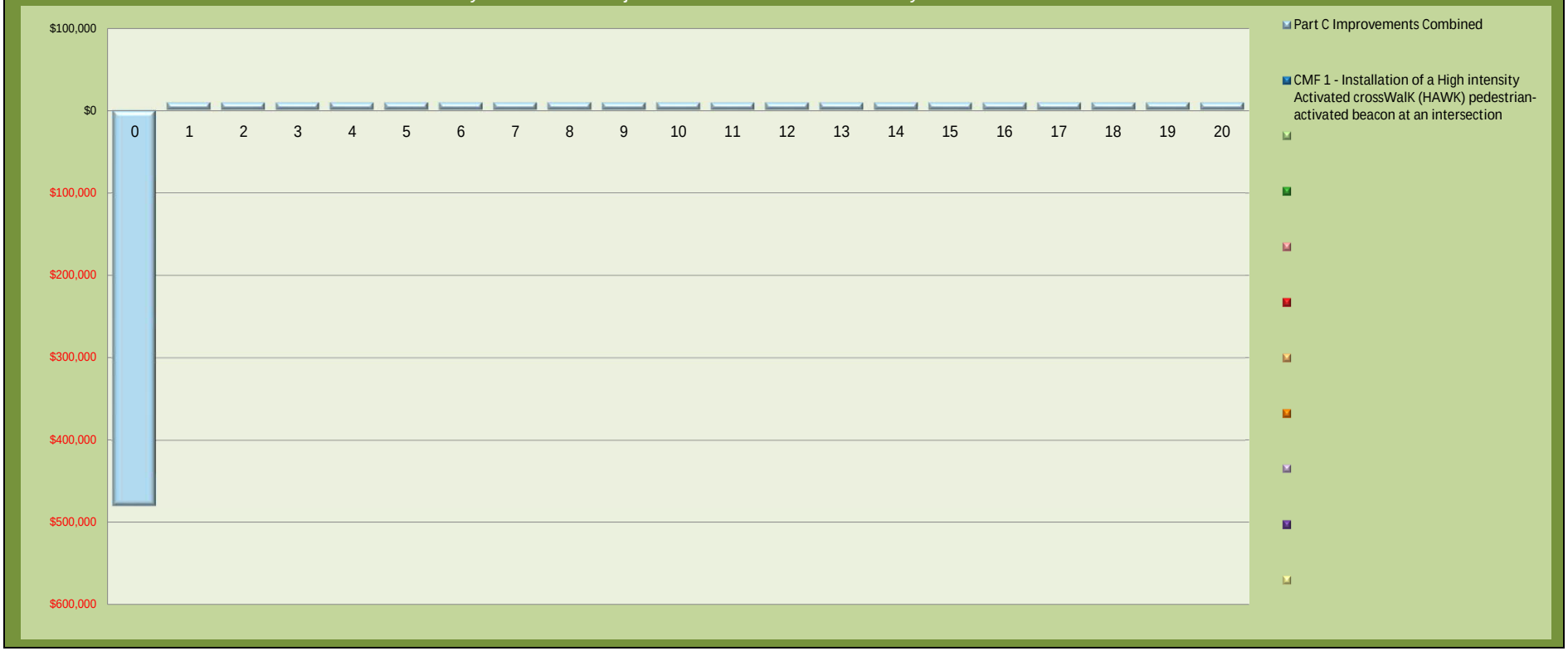
Net Present Value of Project	$480,000.00
Net Present Value of Safety Benefits	$124,516.66
Net Benefit	($355,483.34)
Benefit / Cost Ratio	0.26

Expected Annual Crash Adjustment

Number of Fatal & Incapacitating Injury Crashes	-0.005
Number of Injury Crashes	-0.063
Number of Total Crashes	-0.505

Comments:

Safety Benefits and Project Costs Combined Cash Flows By Countermeasure Per Year



Safety Benefit - Cost Analysis

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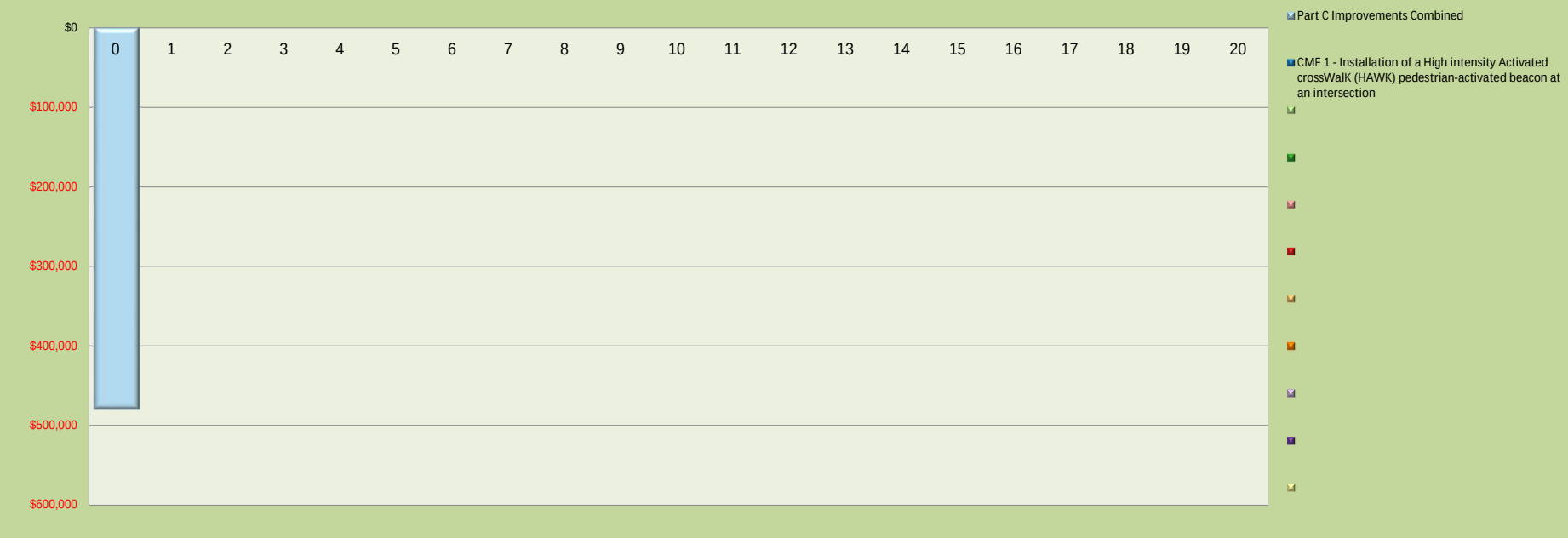
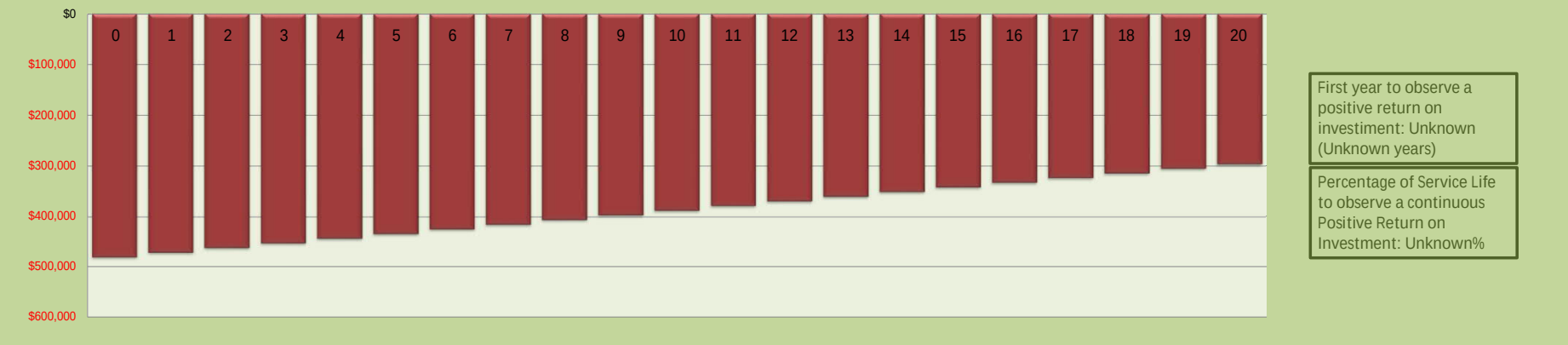
Project Costs Only Cash Flows By Countermeasure Per Year



Return on Investment (Safety Benefits and Project Investments)



First year to observe a positive return on investiment: Unknown (Unknown years)

Percentage of Service Life to observe a continuous Positive Return on Investment: Unknown%