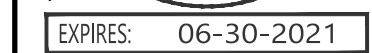


APPENDIX A: PROPOSED SITE PLAN



OAK GROVE

7154p	P11-SW
Design:	M.D.G.
Drawn:	D.G.G.
Checked:	J.J.G.
Date:	JUNE 2021
Scale:	AS SHOWN
As-Built:	----



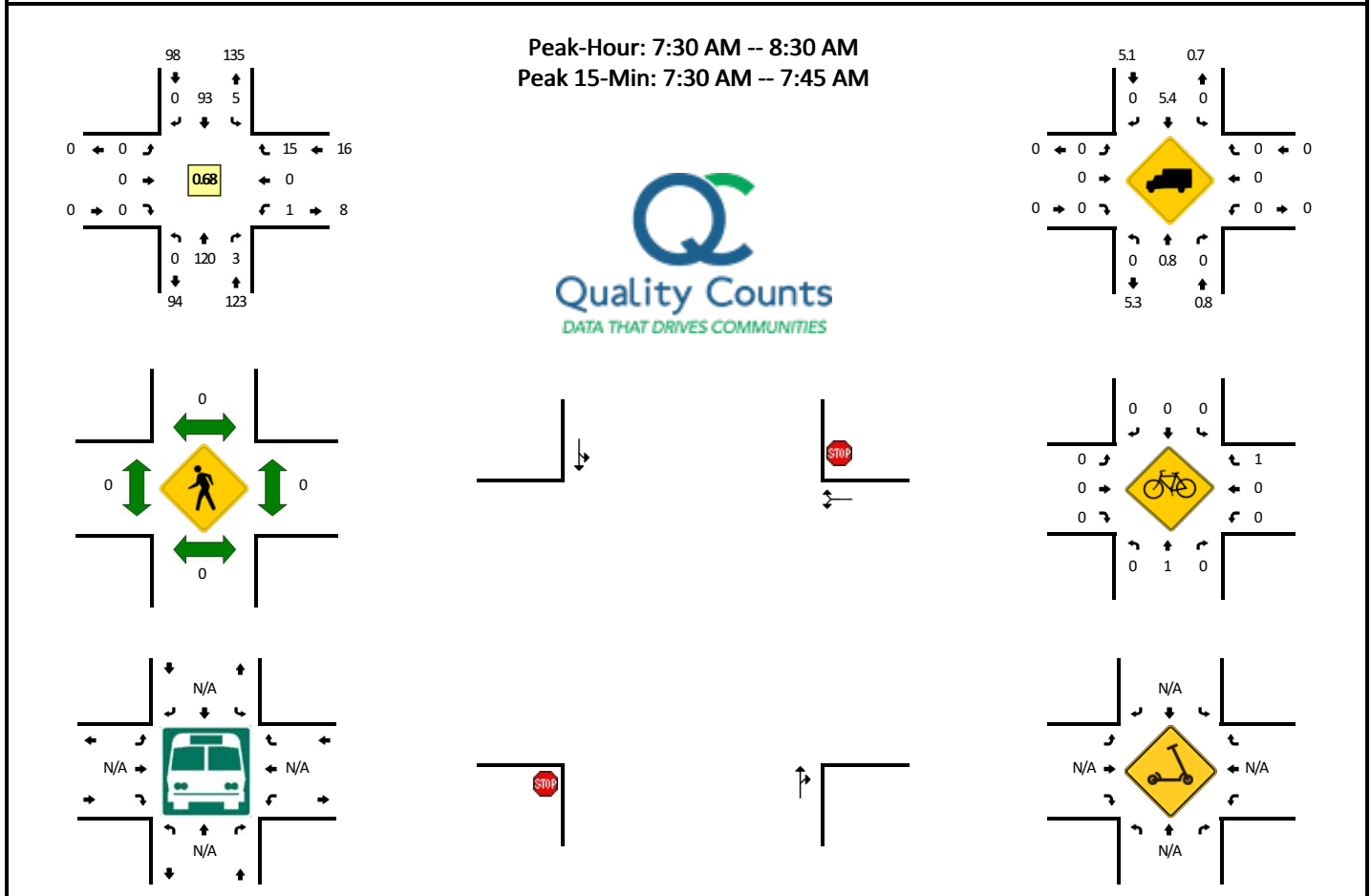
JOB # 7154

P11

APPENDIX B: TRAFFIC COUNTS

LOCATION: Lone Oak Rd SE -- La Cresta Dr SE
CITY/STATE: Salem, OR

QC JOB #: 15840703
DATE: Tue, May 24 2022



5-Min Count Period Beginning At	Lone Oak Rd SE (Northbound)				Lone Oak Rd SE (Southbound)				La Cresta Dr SE (Eastbound)				La Cresta Dr SE (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
6:05 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
6:10 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	
6:15 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	
6:20 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3	
6:25 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	
6:30 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
6:35 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
6:40 AM	0	3	0	0	0	1	0	0	0	0	0	0	1	0	0	0	5	
6:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4	
6:50 AM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	
6:55 AM	0	3	0	0	1	1	0	0	0	0	0	0	0	0	1	0	6	47
7:00 AM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	2	0	9	52
7:05 AM	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	0	11	61
7:10 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7	66
7:15 AM	0	7	0	0	0	2	0	0	0	0	0	0	0	0	2	0	11	74
7:20 AM	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9	80
7:25 AM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	10	86
7:30 AM	0	19	2	0	0	6	0	0	0	0	0	0	0	0	0	0	27	110
7:35 AM	0	21	0	0	0	12	0	0	0	0	0	0	0	0	3	0	36	141
7:40 AM	0	9	0	0	1	12	0	0	0	0	0	0	0	0	2	0	24	160
7:45 AM	0	14	0	0	1	10	0	0	0	0	0	0	0	0	2	0	27	183
7:50 AM	0	13	0	0	1	13	0	0	0	0	0	0	0	0	0	0	27	204
7:55 AM	0	9	0	0	0	7	0	0	0	0	0	0	0	0	1	0	17	215
8:00 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	2	0	12	218
8:05 AM	0	8	0	0	1	9	0	0	0	0	0	0	1	0	4	0	23	230
8:10 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8	231
8:15 AM	0	4	0	0	1	4	0	0	0	0	0	0	0	0	1	0	10	230
8:20 AM	0	3	1	0	0	8	0	0	0	0	0	0	0	0	0	0	12	233
8:25 AM	0	11	0	0	0	3	0	0	0	0	0	0	0	0	0	0	14	237
8:30 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	3	0	16	226
8:35 AM	0	5	0	0	0	4	0	0	0	0	0	0	1	0	0	0	10	200
8:40 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	179
8:45 AM	0	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	6	158
8:50 AM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	11	142
8:55 AM	0	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12	137

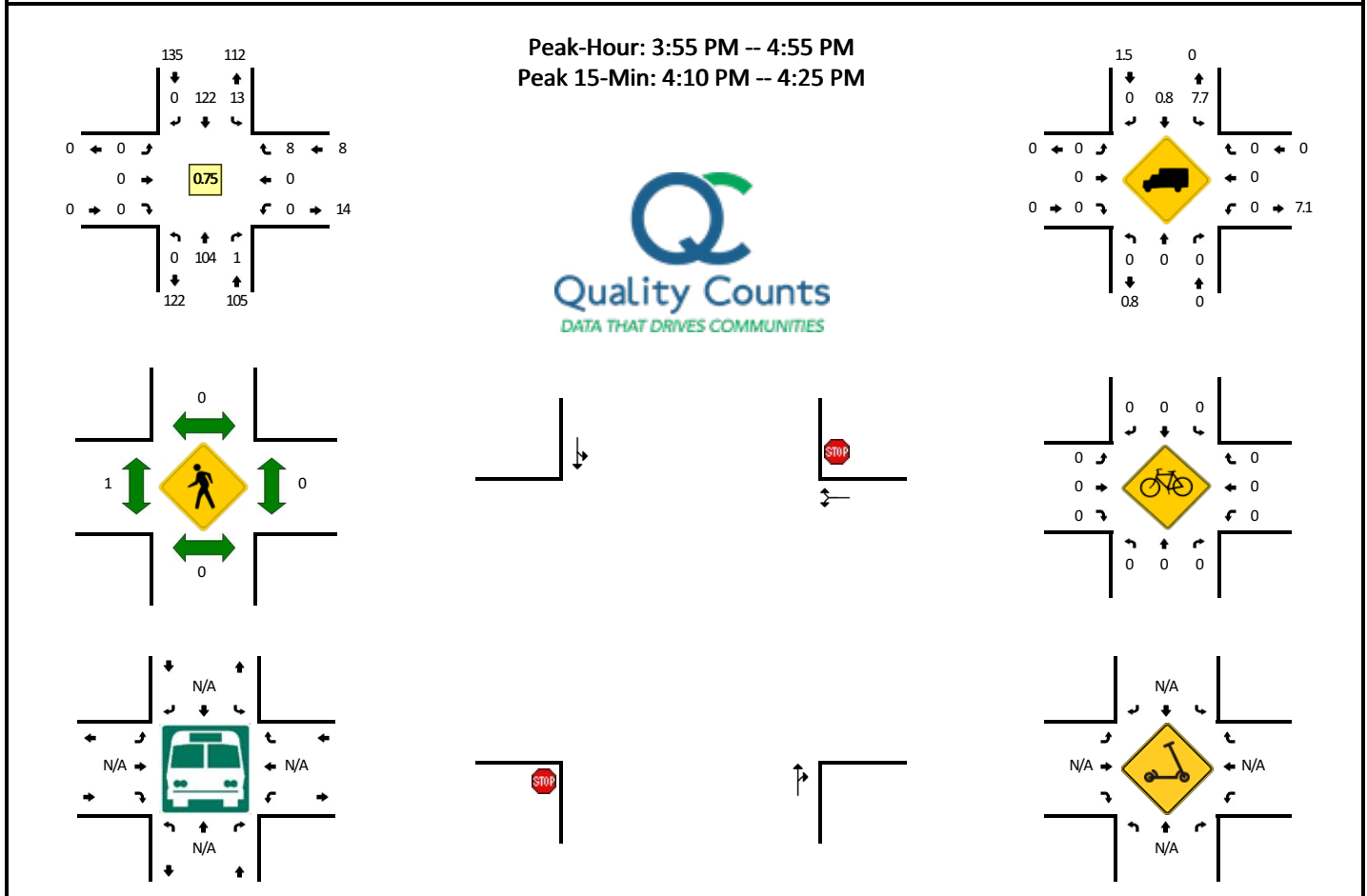
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	196	8	0	4	120	0	0	0	0	0	0	0	0	20	0	348
Heavy Trucks	0	0	0		0	12	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	
<i>Comments:</i>																	

Report generated on 6/2/2022 4:35 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

LOCATION: Lone Oak Rd SE -- La Cresta Dr SE
CITY/STATE: Salem, OR

QC JOB #: 15840704
DATE: Tue, May 24 2022

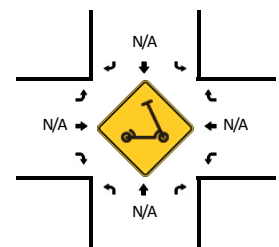
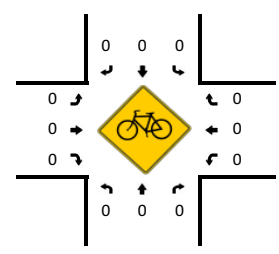
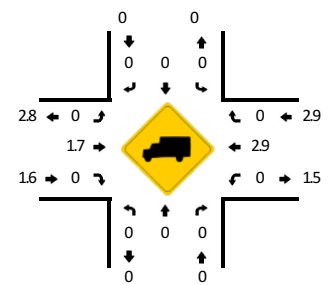


5-Min Count Period Beginning At	Lone Oak Rd SE (Northbound)				Lone Oak Rd SE (Southbound)				La Cresta Dr SE (Eastbound)				La Cresta Dr SE (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	3	0	0	1	11	0	0	0	0	0	0	0	0	1	0	16	
3:05 PM	0	5	0	0	2	3	0	0	0	0	0	0	0	0	0	0	10	
3:10 PM	0	10	0	0	0	9	0	0	0	0	0	0	0	0	0	0	19	
3:15 PM	0	10	0	0	0	8	0	0	0	0	0	0	0	0	0	0	18	
3:20 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	9	
3:25 PM	0	5	0	0	1	9	0	0	0	0	0	0	0	0	0	0	15	
3:30 PM	0	1	0	0	1	10	0	0	0	0	0	0	0	0	2	0	14	
3:35 PM	0	3	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12	
3:40 PM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	11	
3:45 PM	0	9	0	0	0	3	0	0	0	0	0	0	0	0	3	0	15	
3:50 PM	0	8	0	0	1	6	0	0	0	0	0	0	0	0	0	0	15	
3:55 PM	0	13	0	0	1	6	0	0	0	0	0	0	0	0	1	0	21	175
4:00 PM	0	14	0	0	0	7	0	0	0	0	0	0	0	0	1	0	22	181
4:05 PM	0	11	0	0	0	7	0	0	0	0	0	0	0	0	2	0	20	191
4:10 PM	0	7	0	0	2	25	0	0	0	0	0	0	0	0	1	0	35	207
4:15 PM	0	10	0	0	0	12	0	0	0	0	0	0	0	0	1	0	23	212
4:20 PM	0	10	0	0	1	14	0	0	0	0	0	0	0	0	0	0	25	228
4:25 PM	0	4	0	0	0	9	0	0	0	0	0	0	0	0	0	0	13	226
4:30 PM	0	7	0	0	1	4	0	0	0	0	0	0	0	0	1	0	13	225
4:35 PM	0	12	0	0	1	6	0	0	0	0	0	0	0	0	0	0	19	232
4:40 PM	0	6	0	0	4	11	0	0	0	0	0	0	0	0	1	0	22	243
4:45 PM	0	2	1	0	1	10	0	0	0	0	0	0	0	0	0	0	14	242
4:50 PM	0	8	0	0	2	11	0	0	0	0	0	0	0	0	0	0	21	248
4:55 PM	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	0	11	238
5:00 PM	0	6	0	0	2	5	0	0	0	0	0	0	0	0	0	0	13	229
5:05 PM	0	5	0	0	1	7	0	0	0	0	0	0	0	0	0	0	13	222
5:10 PM	0	2	0	0	0	10	0	0	0	0	0	0	0	0	0	0	12	199
5:15 PM	0	8	0	0	1	9	0	0	0	0	0	0	0	0	0	0	18	194
5:20 PM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	1	0	15	184
5:25 PM	0	6	0	0	1	6	0	0	0	0	0	0	0	0	1	0	14	185
5:30 PM	0	6	0	0	2	9	0	0	0	0	0	0	0	0	0	0	17	189
5:35 PM	0	9	0	0	2	5	0	0	0	0	0	0	0	0	0	0	16	186
5:40 PM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	2	0	18	182
5:45 PM	0	6	0	0	2	4	0	0	0	0	0	0	0	0	0	0	12	180
5:50 PM	0	3	0	0	2	9	0	0	0	0	0	0	0	0	1	0	15	174
5:55 PM	0	1	0	0	2	3	0	0	0	0	0	0	0	0	0	0	6	169

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	108	0	0	12	204	0	0	0	0	0	0	0	0	8	0	332
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	0		0
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	
<i>Comments:</i>																	

QC JOB #: 15840705

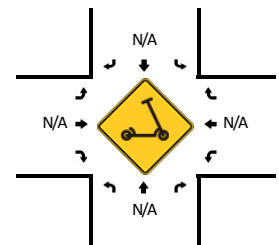
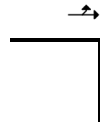
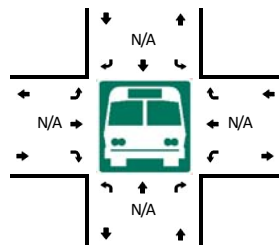
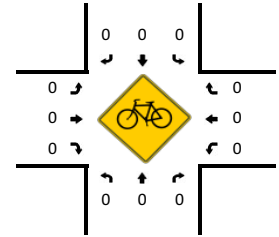
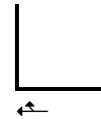
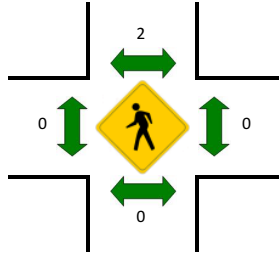
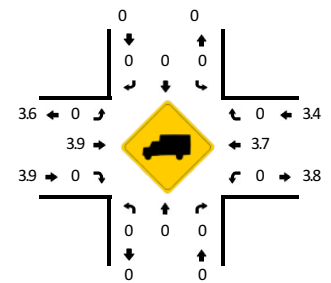
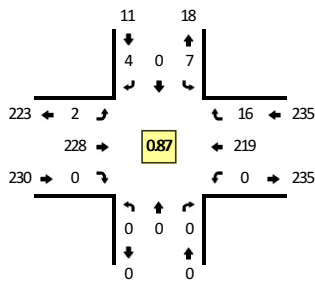
DATE: Tue, May 24 2022



Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	16	0	0	0	4	180	0	0	0	220	0	0	420
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8
Buses																	
Pedestrians		4				0				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	
<i>Comments:</i>																	

LOCATION: Koda St SE -- Mildred Ln SE**CITY/STATE:** Salem, OR**QC JOB #:** 15840706**DATE:** Tue, May 24 2022

Peak-Hour: 3:45 PM -- 4:45 PM
Peak 15-Min: 4:05 PM -- 4:20 PM



5-Min Count Period Beginning At	Koda St SE (Northbound)				Koda St SE (Southbound)				Mildred Ln SE (Eastbound)				Mildred Ln SE (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	0	0	0	0	1	0	1	0	0	13	0	0	0	11	0	0	26	
3:05 PM	0	0	0	0	0	0	0	0	1	12	0	0	0	17	0	0	30	
3:10 PM	0	0	0	0	0	0	0	0	0	12	0	0	0	20	0	0	32	
3:15 PM	0	0	0	0	1	0	0	0	0	13	0	0	0	17	0	0	31	
3:20 PM	0	0	0	0	1	0	1	0	1	5	0	0	0	12	2	0	22	
3:25 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	13	0	0	27	
3:30 PM	0	0	0	0	0	0	0	0	2	18	0	0	0	18	0	0	38	
3:35 PM	0	0	0	0	2	0	0	0	0	21	0	0	0	16	0	0	39	
3:40 PM	0	0	0	0	1	0	0	0	1	20	0	0	0	17	1	0	40	
3:45 PM	0	0	0	0	1	0	1	0	1	17	0	0	0	19	3	0	42	
3:50 PM	0	0	0	0	0	0	0	0	0	10	0	0	0	21	0	0	31	
3:55 PM	0	0	0	0	2	0	1	0	0	11	0	0	0	13	1	0	28	386
4:00 PM	0	0	0	0	0	0	2	0	0	15	0	0	0	22	0	0	39	399
4:05 PM	0	0	0	0	1	0	0	0	0	22	0	0	0	18	0	0	41	410
4:10 PM	0	0	0	0	0	0	0	0	0	25	0	0	0	18	0	0	43	421
4:15 PM	0	0	0	0	1	0	0	0	0	31	0	0	0	20	1	0	53	443
4:20 PM	0	0	0	0	1	0	0	0	0	15	0	0	0	23	2	0	41	462
4:25 PM	0	0	0	0	0	0	0	0	1	17	0	0	0	8	2	0	28	463
4:30 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	21	2	0	41	466
4:35 PM	0	0	0	0	1	0	0	0	0	19	0	0	0	19	3	0	42	469
4:40 PM	0	0	0	0	0	0	0	0	0	28	0	0	0	17	2	0	47	476
4:45 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	17	0	0	35	469
4:50 PM	0	0	0	0	1	0	1	0	1	16	0	0	0	9	0	0	28	466
4:55 PM	0	0	0	0	2	0	0	0	0	15	0	0	0	17	0	0	34	472
5:00 PM	0	0	0	0	0	0	0	0	0	15	0	0	0	20	0	0	35	468
5:05 PM	0	0	0	0	0	0	0	0	0	14	0	0	0	17	0	0	31	458
5:10 PM	0	0	0	0	1	0	1	0	0	18	0	0	0	17	0	0	37	452
5:15 PM	0	0	0	0	0	0	0	0	0	19	0	0	0	21	0	0	40	439
5:20 PM	0	0	0	0	0	0	1	0	1	12	0	0	0	13	1	0	28	426
5:25 PM	0	0	0	0	0	0	0	0	1	9	0	0	0	17	1	0	28	426
5:30 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	17	4	0	39	424
5:35 PM	0	0	0	0	0	0	0	0	0	25	0	0	0	17	2	0	44	426
5:40 PM	0	0	0	0	0	0	0	0	1	17	0	0	0	28	1	0	47	426
5:45 PM	0	0	0	0	2	0	0	0	0	14	0	0	0	25	0	0	41	432
5:50 PM	0	0	0	0	0	0	0	0	0	13	0	0	0	29	2	0	44	448
5:55 PM	0	0	0	0	1	0	0	0	0	11	0	0	0	11	2	0	25	439

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	8	0	0	0	0	312	0	0	0	224	4	0	548
Heavy Trucks	0	0	0		0	0	0		0	16	0		0	4	0		20
Buses																	
Pedestrians		0				4				0				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	
<i>Comments:</i>																	

APPENDIX C:

SYNCHRO REPORTS – 2022 EXISTING AM + PM

HCM 6th TWSC

1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	120	3	5	93
Future Vol, veh/h	1	15	120	3	5	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	1	1	5	5
Mvmt Flow	1	22	176	4	7	137

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	329	178	0
Stage 1	178	-	-
Stage 2	151	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	670	870	-
Stage 1	858	-	-
Stage 2	882	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	667	870	-
Mov Cap-2 Maneuver	667	-	-
Stage 1	858	-	-
Stage 2	878	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	854	1378
HCM Lane V/C Ratio	-	-	0.028	0.005
HCM Control Delay (s)	-	-	9.3	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC

1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	11	111	1	11	110
Future Vol, veh/h	1	11	111	1	11	110
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	9	9	2	2	2	2
Mvmt Flow	1	15	152	1	15	151

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	336	155	0
Stage 1	155	-	-
Stage 2	181	-	-
Critical Hdwy	6.49	6.29	-
Critical Hdwy Stg 1	5.49	-	-
Critical Hdwy Stg 2	5.49	-	-
Follow-up Hdwy	3.581	3.381	-
Pot Cap-1 Maneuver	645	873	-
Stage 1	856	-	-
Stage 2	834	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	636	871	-
Mov Cap-2 Maneuver	636	-	-
Stage 1	854	-	-
Stage 2	824	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	845	1422
HCM Lane V/C Ratio	-	-	0.019	0.011
HCM Control Delay (s)	-	-	9.3	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC
3: Mildred Ln SE & Koda St SE

06/27/2022

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	173	175	3	14	5
Future Vol, veh/h	2	173	175	3	14	5
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	2	194	197	3	16	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	201	0	0 398 200
Stage 1	-	-	- 200 -
Stage 2	-	-	- 198 -
Critical Hdwy	4.12	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.218	-	- 3.5 3.3
Pot Cap-1 Maneuver	1371	-	- 611 846
Stage 1	-	-	- 838 -
Stage 2	-	-	- 840 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1370	-	- 609 845
Mov Cap-2 Maneuver	-	-	- 609 -
Stage 1	-	-	- 835 -
Stage 2	-	-	- 839 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1370	-	-	-	657
HCM Lane V/C Ratio	0.002	-	-	-	0.032
HCM Control Delay (s)	7.6	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC
3: Mildred Ln SE & Koda St SE

06/27/2022

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	228	219	16	7	4
Future Vol, veh/h	2	228	219	16	7	4
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	4	4	3	3	0	0
Mvmt Flow	2	262	252	18	8	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	272	0	0 529 263
Stage 1	-	-	- 263 -
Stage 2	-	-	- 266 -
Critical Hdwy	4.14	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.236	-	- 3.5 3.3
Pot Cap-1 Maneuver	1280	-	- 514 781
Stage 1	-	-	- 786 -
Stage 2	-	-	- 783 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1278	-	- 511 780
Mov Cap-2 Maneuver	-	-	- 511 -
Stage 1	-	-	- 783 -
Stage 2	-	-	- 781 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1278	-	-	-	584
HCM Lane V/C Ratio	0.002	-	-	-	0.022
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

APPENDIX D: METHODS AND ASSUMPTIONS MEMORANDUM

MEMORANDUM

DATE: June 28, 2022

TO: Tony Martin/City of Salem

FROM: Tegan Enloe, PE/Enloe Consulting, LLC

SUBJECT: Oak Grove TIA: Methods & Assumptions

The applicant proposes to construct single family detached housing, located east of Lone Oak Rd SE and south of La Cresta Dr SE in Salem, OR. The subdivision would create 54 single family detached houses. This memorandum outlines key analysis assumptions and methodology to be used in the traffic impact analysis for the proposed development.

Trip Generation

Trip generation values for the proposed development are estimated using the ITE Trip Generation Manual, 11th Edition, and the Land Use Code 210: Single Family Detached. These values will be added to the Background Traffic to develop Total Traffic volumes.

Table 1: Trip Generation

Land Use (ITE Code)	Units	Time Period	Peak Hour Trips		
			In	Out	Total
Single Family Detached (210)	54	AM Peak	11	31	43
		PM Peak	35	21	56
		Daily	-	-	572



Trip Distribution

Trip distribution patterns are recommended based on calculations from existing traffic counts. The following distribution patterns are proposed:

- 16% north on Lone Oak Rd SE
- 23% south on Lone Oak Rd SE
- 10% east on La Cresta Dr SE
- 26% east on Mildred Ln SE
- 25% west on Mildred Ln SE

Scenarios

The traffic analysis will be completed under the assumption that full build out will occur in 2024.

The following analysis scenarios are proposed for review:

- 2022 Existing Conditions, AM Peak Hour
- 2022 Existing Conditions, PM Peak Hour
- 2024 Background Traffic, AM Peak Hour
- 2024 Background Traffic, PM Peak Hour
- 2024 Total Traffic (Background + Site), AM Peak Hour
- 2024 Total Traffic (Background + Site), PM Peak Hour

Study Intersections

The following intersections are suggested for inclusion in the TIA study:

- 1 Lone Oak Rd SE/ La Cresta Dr SE
- 2 La Cresta Dr SE/ Koda St SE
- 3 Mildred Ln SE/ Koda St SE

Analysis Volumes

Traffic counts were collected on Tuesday, May 24, 2022, for use in this study. Seasonal adjustment is not recommended as the counts were collected on a typical weekday while school was in session. An annual growth



rate of 1% is proposed to be applied linearly to the existing volumes. This value is consistent with calculated growth rates used in other traffic impact analyses within the City of Salem.

Planned Improvements

No capital improvement or other planned improvement projects are identified for inclusion in the background and total traffic analysis.

In Process Developments

No in-process developments have been identified for inclusion.

APPENDIX E: CRASH DATA REPORTS

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING
LONE OAK RD at LA CRESTA DR, City of Salem, Marion County, 01/01/2016 to 12/31/2020

SER#	P	R	J	S	W	DATE	CLASS	CITY	STREET	RD	CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	SPCL	USE	MOVE	A	S								
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET																				
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT		LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC	INJ	G	E	LICNS	PED					
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF SALEM, MARION COUNTY

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING
HILDRED LN at KODA ST, City of Salem, Marion County, 01/01/2016 to 12/31/2020

	S	D	M																														
SER#	P	R	J	S	W	DATE	CLASS	CITY	STREET	INT-TYPE							SPCL USE																
INVEST	E	A	U	I	C	O	DAY	DIST	FIRST STREET	RD	CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE								A	S					
RD DPT	E	L	G	N	H	R	TIME	FROM	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER	FROM	PRTC		INJ	G	E	LICNS	PED									
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACT	EVENT	CAUSE				

Disclaimer: The information contained in this report is compiled from individual driver and police crash reports submitted to the Oregon Department of Transportation as required in ORS 811.720. The Crash Analysis and Reporting Unit is committed to providing the highest quality crash data to customers. However, because submittal of crash report forms is the responsibility of the individual driver, the Crash Analysis and Reporting Unit can not guarantee that all qualifying crashes are represented nor can assurances be made that all details pertaining to a single crash are accurate. Note: Legislative changes to DMV's vehicle crash reporting requirement, effective 01/01/2004, may result in fewer property damage only crashes being eligible for inclusion in the Statewide Crash Data File.

CITY OF SALEM, MARION COUNTY

MILDRED LN at KODA ST, City of Salem, Marion County, 01/01/2016 to 12/31/2020

APPENDIX F:
SYNCHRO REPORTS – 2024 BACKGROUND AM + PM

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	15	122	3	5	95
Future Vol, veh/h	1	15	122	3	5	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	1	1	5	5
Mvmt Flow	1	22	179	4	7	140

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	335	181	0
Stage 1	181	-	-
Stage 2	154	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	664	867	-
Stage 1	855	-	-
Stage 2	879	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	660	867	-
Mov Cap-2 Maneuver	660	-	-
Stage 1	855	-	-
Stage 2	874	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	850	1374
HCM Lane V/C Ratio	-	-	0.028	0.005
HCM Control Delay (s)	-	-	9.4	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC

1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	11	113	1	11	112
Future Vol, veh/h	1	11	113	1	11	112
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	9	9	2	2	2	2
Mvmt Flow	1	15	155	1	15	153

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	341	158	0
Stage 1	158	-	-
Stage 2	183	-	-
Critical Hdwy	6.49	6.29	-
Critical Hdwy Stg 1	5.49	-	-
Critical Hdwy Stg 2	5.49	-	-
Follow-up Hdwy	3.581	3.381	-
Pot Cap-1 Maneuver	641	869	-
Stage 1	854	-	-
Stage 2	832	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	632	867	-
Mov Cap-2 Maneuver	632	-	-
Stage 1	852	-	-
Stage 2	822	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	841	1419
HCM Lane V/C Ratio	-	-	0.02	0.011
HCM Control Delay (s)	-	-	9.4	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC
3: Mildred Ln SE & Koda St SE

06/27/2022

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	176	179	3	14	5
Future Vol, veh/h	2	176	179	3	14	5
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	2	198	201	3	16	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	205	0	0 406 204
Stage 1	-	-	- 204 -
Stage 2	-	-	- 202 -
Critical Hdwy	4.12	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.218	-	- 3.5 3.3
Pot Cap-1 Maneuver	1366	-	- 605 842
Stage 1	-	-	- 835 -
Stage 2	-	-	- 837 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1365	-	- 603 841
Mov Cap-2 Maneuver	-	-	- 603 -
Stage 1	-	-	- 832 -
Stage 2	-	-	- 836 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1365	-	-	-	652
HCM Lane V/C Ratio	0.002	-	-	-	0.033
HCM Control Delay (s)	7.6	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC
3: Mildred Ln SE & Koda St SE

06/27/2022

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	233	223	16	7	4
Future Vol, veh/h	2	233	223	16	7	4
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	4	4	3	3	0	0
Mvmt Flow	2	268	256	18	8	5

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	276	0	0 539 267
Stage 1	-	-	- - 267 -
Stage 2	-	-	- - 272 -
Critical Hdwy	4.14	-	- - 6.4 6.2
Critical Hdwy Stg 1	-	-	- - 5.4 -
Critical Hdwy Stg 2	-	-	- - 5.4 -
Follow-up Hdwy	2.236	-	- - 3.5 3.3
Pot Cap-1 Maneuver	1275	-	- - 507 777
Stage 1	-	-	- - 782 -
Stage 2	-	-	- - 778 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1273	-	- - 504 776
Mov Cap-2 Maneuver	-	-	- - 504 -
Stage 1	-	-	- - 779 -
Stage 2	-	-	- - 776 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1273	-	-	-	578
HCM Lane V/C Ratio	0.002	-	-	-	0.022
HCM Control Delay (s)	7.8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

APPENDIX G:
SYNCHRO REPORTS – 2024 TOTAL AM + PM

HCM 6th TWSC

1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	20	122	6	7	95
Future Vol, veh/h	8	20	122	6	7	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	68	68	68	68	68	68
Heavy Vehicles, %	0	0	1	1	5	5
Mvmt Flow	12	29	179	9	10	140

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	344	184	0
Stage 1	184	-	-
Stage 2	160	-	-
Critical Hdwy	6.4	6.2	-
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	657	864	-
Stage 1	852	-	-
Stage 2	874	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	652	864	-
Mov Cap-2 Maneuver	652	-	-
Stage 1	852	-	-
Stage 2	867	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	791	1368
HCM Lane V/C Ratio	-	-	0.052	0.008
HCM Control Delay (s)	-	-	9.8	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th TWSC

1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	14	113	8	16	112
Future Vol, veh/h	5	14	113	8	16	112
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	9	9	2	2	2	2
Mvmt Flow	7	19	155	11	22	153

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	360	163	0
Stage 1	163	-	-
Stage 2	197	-	-
Critical Hdwy	6.49	6.29	-
Critical Hdwy Stg 1	5.49	-	-
Critical Hdwy Stg 2	5.49	-	-
Follow-up Hdwy	3.581	3.381	-
Pot Cap-1 Maneuver	625	864	-
Stage 1	849	-	-
Stage 2	820	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	613	862	-
Mov Cap-2 Maneuver	613	-	-
Stage 1	847	-	-
Stage 2	806	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	779	1407
HCM Lane V/C Ratio	-	-	0.033	0.016
HCM Control Delay (s)	-	-	9.8	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC
2: Koda St SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	8	5	1	16	12	3
Future Vol, veh/h	8	5	1	16	12	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	5	1	17	13	3

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	14
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1604
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1604
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	998	-	-	1604	-
HCM Lane V/C Ratio	0.016	-	-	0.001	-
HCM Control Delay (s)	8.7	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
2: Koda St SE & La Cresta Dr SE

06/27/2022

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	11	13	4	11	8	2
Future Vol, veh/h	11	13	4	11	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	14	4	12	9	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	26
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1588
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1588
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	987	-	-	1588	-
HCM Lane V/C Ratio	0.011	-	-	0.003	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
3: Mildred Ln SE & Koda St SE

06/27/2022

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	176	179	6	22	13
Future Vol, veh/h	4	176	179	6	22	13
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	4	198	201	7	25	15

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	209	0	0 412 206
Stage 1	-	-	- - 206 -
Stage 2	-	-	- - 206 -
Critical Hdwy	4.12	-	- - 6.4 6.2
Critical Hdwy Stg 1	-	-	- - 5.4 -
Critical Hdwy Stg 2	-	-	- - 5.4 -
Follow-up Hdwy	2.218	-	- - 3.5 3.3
Pot Cap-1 Maneuver	1362	-	- - 600 840
Stage 1	-	-	- - 833 -
Stage 2	-	-	- - 833 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1361	-	- - 597 839
Mov Cap-2 Maneuver	-	-	- - 597 -
Stage 1	-	-	- - 830 -
Stage 2	-	-	- - 832 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1361	-	-	-	669
HCM Lane V/C Ratio	0.003	-	-	-	0.059
HCM Control Delay (s)	7.7	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th TWSC
3: Mildred Ln SE & Koda St SE

06/27/2022

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	233	223	25	13	9
Future Vol, veh/h	11	233	223	25	13	9
Conflicting Peds, #/hr	2	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	4	4	3	3	0	0
Mvmt Flow	13	268	256	29	15	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	287	0	0 567 273
Stage 1	-	-	- 273 -
Stage 2	-	-	- 294 -
Critical Hdwy	4.14	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.236	-	- 3.5 3.3
Pot Cap-1 Maneuver	1264	-	- 488 771
Stage 1	-	-	- 778 -
Stage 2	-	-	- 761 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1262	-	- 480 770
Mov Cap-2 Maneuver	-	-	- 480 -
Stage 1	-	-	- 767 -
Stage 2	-	-	- 759 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1262	-	-	-	567
HCM Lane V/C Ratio	0.01	-	-	-	0.045
HCM Control Delay (s)	7.9	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Queuing and Blocking Report

Baseline

06/27/2022

Intersection: 1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	51	13
Average Queue (ft)	19	0
95th Queue (ft)	47	7
Link Distance (ft)	701	837
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Koda St SE & La Cresta Dr SE

Movement	NB
Directions Served	LR
Maximum Queue (ft)	34
Average Queue (ft)	14
95th Queue (ft)	41
Link Distance (ft)	1645
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Mildred Ln SE & Koda St SE

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	27	54
Average Queue (ft)	1	24
95th Queue (ft)	11	53
Link Distance (ft)		1645
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Lone Oak Rd SE/ Lone Oak Rd SE & Mildred Ln SE

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report

Baseline

06/27/2022

Intersection: 1: Lone Oak Rd SE/Lone Oak Rd SE & La Cresta Dr SE

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	45	37
Average Queue (ft)	16	2
95th Queue (ft)	44	16
Link Distance (ft)	701	837
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Koda St SE & La Cresta Dr SE

Movement	NB
Directions Served	LR
Maximum Queue (ft)	35
Average Queue (ft)	12
95th Queue (ft)	38
Link Distance (ft)	1645
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Mildred Ln SE & Koda St SE

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	49	53
Average Queue (ft)	5	17
95th Queue (ft)	28	46
Link Distance (ft)		1645
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Baseline

06/27/2022

Intersection: 6: Lone Oak Rd SE/ Lone Oak Rd SE & Mildred Ln SE

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 0