

The operational simulation analysis is being done to analyze the risk and benefit for the No Build versus Build of a Diverge Diamond Interchange (DDI) at US-395 and Moana Interchange.

Traffic Operations Analysis Report is for the following:

- Year 2010 Existing Conditions
- Opening Year 2015 No Build Alternative
- Opening Year 2015 Build Alternative
- Mid Design Year 2025 No Build Alternative
- Mid Design Year 2025 Build Alternative
- Design Year 2035 No Build Alternative
- Design Year 2035 Build Alternative

The proposed project study areas:

- Intersection of Moana at Kietzke
- Intersection of Moana at US-395 Southbound
- Intersection of Moana at US-395 Northbound
- Intersection of Moana at Neil
- Mainline US-395 Northbound – S. of Moana on ramp to N. of Plumb off ramp
- Mainline US-395 Southbound – N. of Moana on ramp to S. of S. Virginia off ramp

Moana Lane Configuration:

- 2010 Existing Condition – 2 Through lane in each direction (prior to RTC widening project)
- 2015, 2025 & 2035 Existing Condition – 3 Through lane in each direction (RTC widening project completed)

Traffic Operations Analysis Methodology and Assumptions:

- Corsim 6.2 (Build 512) is used in traffic microsimulation models. The Corsim models are run multiple times with different random seeds. The final results are based on the average of 10 runs.
- Study intersections are first optimized in Synchro 7.0 using pre-time control and then input into Corsim models.
- Assumed truck percentage of 5% for US-395, and 2% for Moana intersections.
- Corsim models Vehicle Entry Headway is set to Erlang Distribution with parameter set to 1. It is a preferred choice for networks with FRESIM dominance (per Advance CORSIM Training Manual, MinDOT, January 2008)
- Peak hours are based on a one hour count. To simulate the congestion effect of a buildup peak and how it dissipated, 4 intervals of 15 minutes were introduced into the model using PHF 0.9 (interval 1 = 96%, interval 2 = 112%, interval 3 = 104%, and interval 4 = 88%)

Results of the Analysis on the Arterial:

- At the intersection of Moana and Kietzke – Improvement obtained from constructing DDI: LOS F to C (2025 PM), and LOS F to E (2035 PM).

- At the intersection of Moana and US-395 SB – Improvement obtained from constructing DDI: LOS C to B (2025 AM), LOS D to B (2035 AM), LOS D to B (2015 PM), and LOS E to B (2025 & 2035 PM).
- At the intersection of Moana and US-395 NB – Improvement obtained from constructing DDI: LOS C to B (2035 PM).

Results of the Analysis on the Freeway:

- US-395 Northbound mainline weaving section between Moana and Plumb interchange – degrading the freeway performance from LOS C to D (only by 2.9 veh/mi/ln).
- US-395 Northbound mainline freeway section N. of Plumb off ramp – degrading the freeway performance from LOS C to D (only by 2.5 veh/mi/ln).
- US-395 Southbound mainline freeway & merging sections between N. of Moana on ramp and S. Virginia off ramp – freeway operating at LOS F due to over capacity in 2025 & 2035 PM volumes.
- The volumes calibration showed US-395 Northbound and Southbound for the No Build 2035 GEH target > 5. That's due to the bottle necking at the intersection of Moana and US-395 SB. Those backup volumes cannot process through the models to be accounted for.
- Existing 3 lanes on US-395 Southbound mainline cannot handle the future volumes for the year 2035, resulted in the GEH target > 5. A separate project to widening that section of the freeway will have to be considered if and when those future volumes are realized.

Conclusion:

- The results showed that by constructing a DDI, it will improve the bottle necking at the intersection of Moana and US-395 SB, thus alleviate the back up through the intersection of Moana and Kietzke. But by releasing a large amount of vehicle onto the freeway by constructing a DDI, a negative effect is being put on the freeway in the future years. Ramp metering should mitigate that problem if and when it becomes a problem.

INTERSECTIONS DELAY BETWEEN EXISTING CONDITION Vs. DIVERGE DIAMOND INTERCHANGE

INTERSECTIONS DELAY (sec/veh) / LOS	Moana @ Kietzke	Moana @ US-395 SB Ramps	Moana @ US-395 NB Ramps	Moana @ Neil
EXISTING CONDITION - 2010 AM	22.40 / C	20.44 / C	10.73 / B	18.91 / B
EXISTING CONDITION - 2015 AM	22.47 / C	18.54 / B	13.4 / B	15.98 / B
DDI - 2015 AM	25.91 / C	13.30 / B	18.23 / B	14.18 / B
EXISTING CONDITION - 2025 AM	21.95 / C	30.87 / C	15.97 / B	16.71 / B
DDI - 2025 AM	25.87 / C	13.32 / B	17.88 / B	12.12 / B
EXISTING CONDITION - 2035 AM	23.89 / C	51.01 / D	11.08 / B	16.79 / B
DDI - 2035 AM	26.10 / C	12.94 / B	18.88 / B	12.55 / B
EXISTING CONDITION - 2010 PM	34.73 / C	23.07 / C	16.6 / B	17.68 / B
EXISTING CONDITION - 2015 PM	32.20 / C	37.78 / D	16.46 / B	16.86 / B
DDI - 2015 PM	33.21 / C	14.19 / B	13.64 / B	14.09 / B
EXISTING CONDITION - 2025 PM	91.31 / F	55.98 / E	19.81 / B	16.98 / B
DDI - 2025 PM	41.13 / C	10.76 / B	13.96 / B	15.77 / B
EXISTING CONDITION - 2035 PM	140.88 / F	61.31 / E	25.88 / C	21.08 / C
DDI - 2035 PM	70.82 / E	10.45 / B	13.27 / B	23.74 / C

FREEWAY MOE's BETWEEN EXISTING CONDITION VS. DIVERGE DIAMOND INTERCHANGE

	US-395 NORTHBOUND Freeway Section S. of Moana On Ramp		US-395 NORTHBOUND Weaving Section btw Moana & Plumb I/C		US-395 NORTHBOUND Freeway Section N. of Plumb Off Ramp		US-395 SOUTHBOUND Freeway Section N. of Moana On Ramp		US-395 SOUTHBOUND Merging Section btw Moana & S. Virginia I/C		US-395 SOUTHBOUND Freeway Section S. of S. Virginia Off Ramp	
	Speed (mph)	Density (veh/mi/ln)	Speed (mph)	Density (veh/mi/ln)	Speed (mph)	Density (veh/mi/ln)	Speed (mph)	Density (veh/mi/ln)	Speed (mph)	Density (veh/mi/ln)	Speed (mph)	Density (veh/mi/ln)
EXISTING CONDITION - 2015 AM	61.6	23.4 / C	61.0	16.3 / B	62.3	15.6 / B	60.6	27.9 / D	56.4	30.2 / D	61.6	23.5 / C
DDI - 2015 AM	61.6	23.4 / C	61.2	16.6 / B	62.2	16.9 / B	60.7	27.8 / D	56.6	30.2 / D	61.6	23.5 / D
EXISTING CONDITION - 2025 AM	60.7	29.1 / D	59.6	20.4 / C	61.4	19.5 / C	57.2	35.7 / E	51.4	40.1 / E	60.1	29.2 / D
DDI - 2025 AM	60.8	28.8 / D	60.3	20.4 / C	61.5	20.6 / C	57.4	35.9 / E	51.5	40.3 / E	60.1	29.4 / D
EXISTING CONDITION - 2035 AM	60.1	33.7 / D	58.9	23.8 / C	61.0	22.6 / C	55.3	38.8 / E	49.0	44.4 / E	59.5	31.1 / D
DDI - 2035 AM	60.2	33.4 / D	59.2	24.1 / C	60.8	24.3 / C	56.0	38.4 / E	49.3	44.2 / E	59.6	31.1 / D
EXISTING CONDITION - 2015 PM	61.5	23.9 / C	59.6	19.0 / C	61.8	18.3 / C	59.1	30.4 / D	51.7	36.2 / E	61.1	24.9 / C
DDI - 2015 PM	61.6	23.6 / C	60.1	19.1 / C	61.7	19.0 / C	59.3	30.2 / D	52.0	36.0 / E	61.1	25.1 / C
EXISTING CONDITION - 2025 PM	60.7	29.5 / D	58.6	23.0 / C	61.1	21.7 / C	53.8	38.4 / E	46.7	46.1 / F	59.7	29.1 / D
DDI - 2025 PM	60.8	29.1 / D	58.8	23.8 / C	60.9	23.3 / C	48.3	43.7 / E	44.8	48.9 / F	59.4	29.8 / D
EXISTING CONDITION - 2035 PM	60.3	32.8 / D	58.0	25.4 / C	60.8	24.0 / C	50.3	42.6 / E	43.9	50.9 / F	59.3	30.1 / D
DDI - 2035 PM	60.4	32.5 / D	57.6	27.3 / D	60.2	26.5 / D	37.8	56.8 / F	40.9	55.8 / F	58.8	30.5 / D

VOLUMES CALIBRATION (BALANCED VOLUMES Vs. MODEL VOLUMES)

	2015 AM (NO BUILD)			2015 AM (BUILD)			2015 PM (NO BUILD)			2015 PM (BUILD)		
	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target
US-395 NB Freeway Section S. of Moana On Ramp	4,167	4,326	2.44	4,167	4,321	2.36	4,205	44	3.20	4,205	4,355	2.29
US-395 NB Weaving Section btw Moana & Plumb I/C	4,888	4,975	1.24	4,888	5,071	2.59	5,540	5,663	1.64	5,540	5,735	2.60
US-395 NB Freeway Section N. of Plumb Off Ramp	4,064	3,888	2.79	4,064	4,198	2.08	4,542	4,519	0.34	4,542	4,679	2.02
US-395 SB Freeway Section N. of Moana On Ramp	4,901	5,072	2.42	4,901	5,063	2.30	5,209	5,390	2.49	5,209	5,369	2.20
US-395 SB Merge Section btw Moana & S. Virginia I/C	5,141	5,307	2.30	5,141	5,285	1.99	5,678	5,826	1.95	5,678	5,830	2.00
US-395 SB Freeway Section S. of S. Virginia Off Ramp	4,200	4,341	1.85	4,200	4,343	1.88	4,482	4,558	1.13	4,482	4,589	1.59

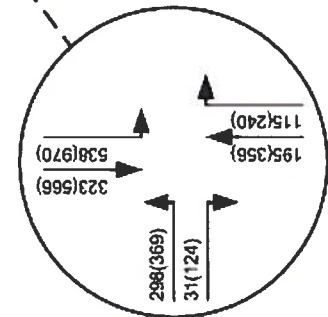
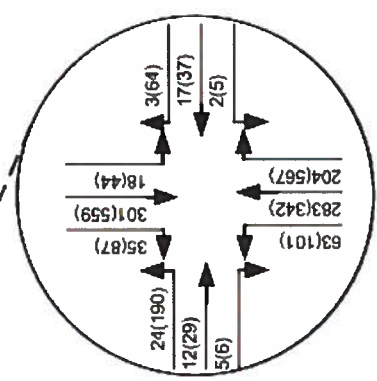
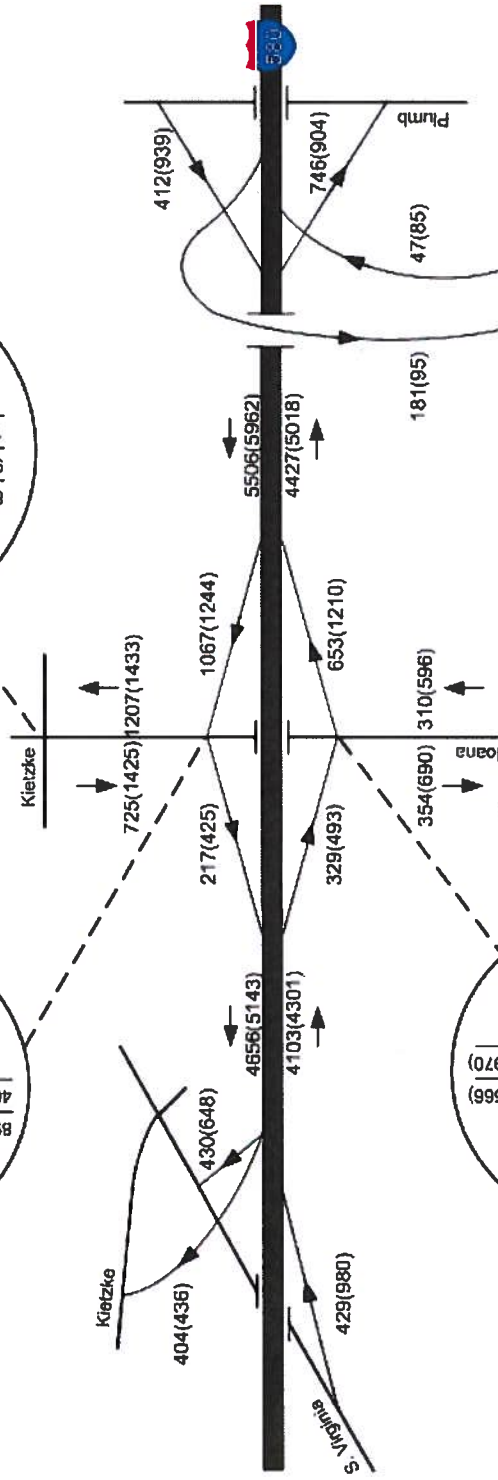
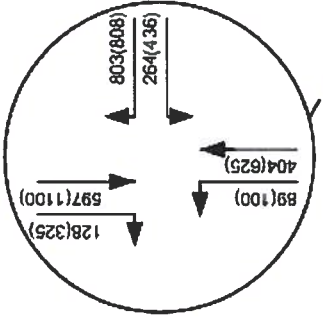
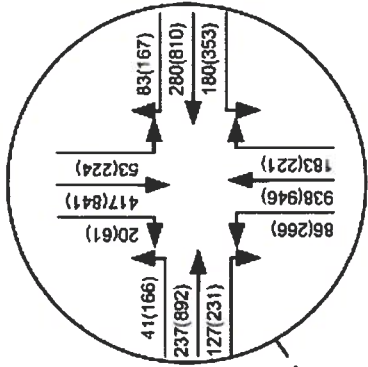
	2025 AM (NO BUILD)			2025 AM (BUILD)			2025 PM (NO BUILD)			2025 PM (BUILD)		
	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target
US-395 NB Freeway Section S. of Moana On Ramp	5,079	5,296	3.01	5,079	5,250	2.38	5,125	5,367	3.34	5,125	5,315	2.63
US-395 NB Weaving Section btw Moana & Plumb I/C	5,958	6,095	1.76	5,958	6,166	2.67	6,754	6,740	0.17	6,754	7,000	2.97
US-395 NB Freeway Section N. of Plumb Off Ramp	4,954	4,788	2.38	4,954	5,072	1.67	5,537	5,317	2.99	5,537	5,684	1.96
US-395 SB Freeway Section N. of Moana On Ramp	5,974	6,129	1.99	5,974	6,182	2.67	6,350	6,196	1.94	6,350	6,222	1.61
US-395 SB Merge Section btw Moana & S. Virginia I/C	6,266	6,419	1.90	6,266	6,457	2.39	6,922	6,670	3.06	6,922	6,765	1.90
US-395 SB Freeway Section S. of S. Virginia Off Ramp	5,143	5,260	1.62	5,143	5,291	2.05	5,463	5,207	3.50	5,463	5,317	1.99

VOLUMES CALIBRATION (BALANCED VOLUMES Vs. MODEL VOLUMES)

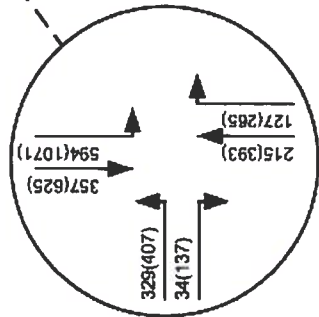
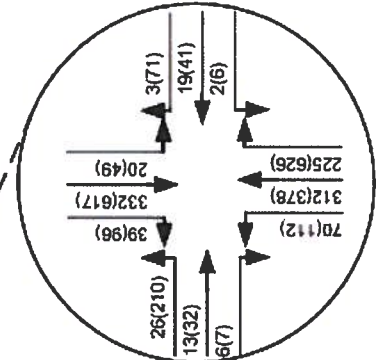
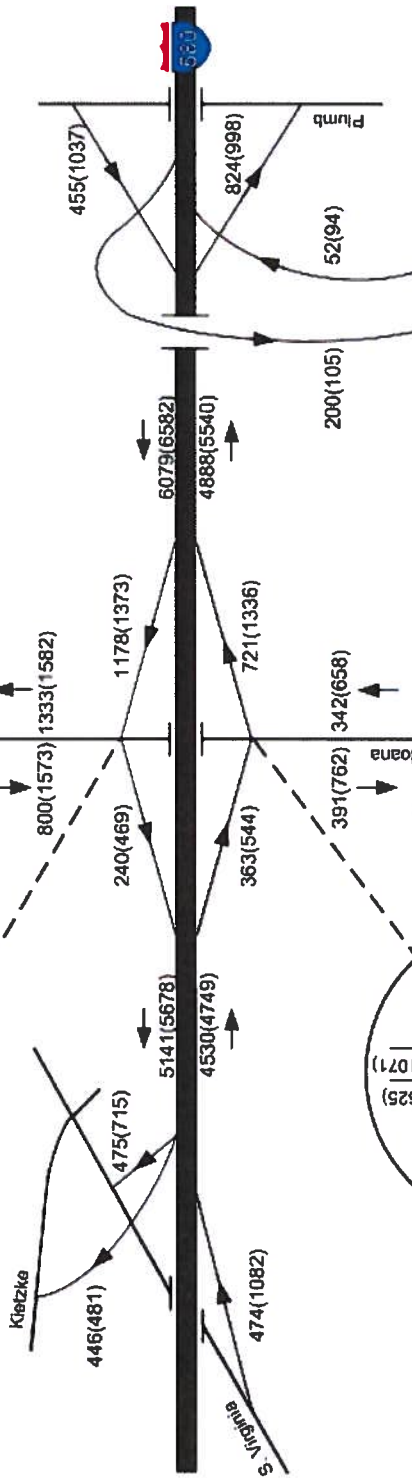
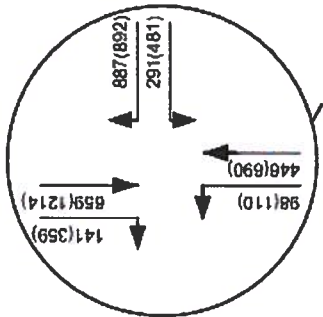
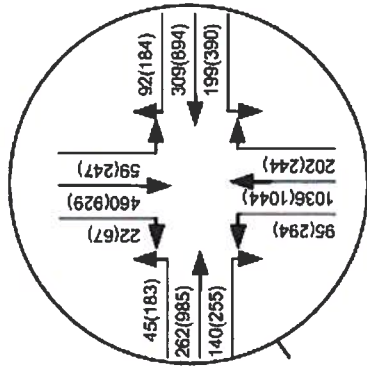
	2035 AM (NO BUILD)			2035 AM (BUILD)			2035 PM (NO BUILD)			2035 PM (BUILD)		
	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target	Balanced Volumes	Model Volumes	GEH Target
US-395 NB Freeway Section S. of Moana On Ramp	6,191	6,079	1.43	6,191	6,033	2.02	6,250	5,928	4.13	6,250	5,878	4.78
US-395 NB Weaving Section btw Moana & Plumb I/C	7,263	7,014	2.95	7,263	7,152	1.31	8,233	7,360	9.91	8,233	7,850	4.27
US-395 NB Freeway Section N. of Plumb Off Ramp	6,039	5,508	6.98	6,039	5,900	1.80	6,750	5,829	11.64	6,750	6,375	4.63
US-395 SB Freeway Section N. of Moana On Ramp	7,283	6,436	10.23	7,283	6,446	10.10	7,741	6,396	16.00	7,741	6,324	16.90
US-395 SB Merge Section btw Moana & S. Virginia I/C	7,639	6,770	10.32	7,639	6,781	10.10	8,438	6,898	17.59	8,438	6,969	16.74
US-395 SB Freeway Section S. of S. Virginia Off Ramp	6,271	5,556	9.30	6,271	5,558	9.27	6,660	5,341	17.03	6,660	5,386	16.42

APPENDIX A

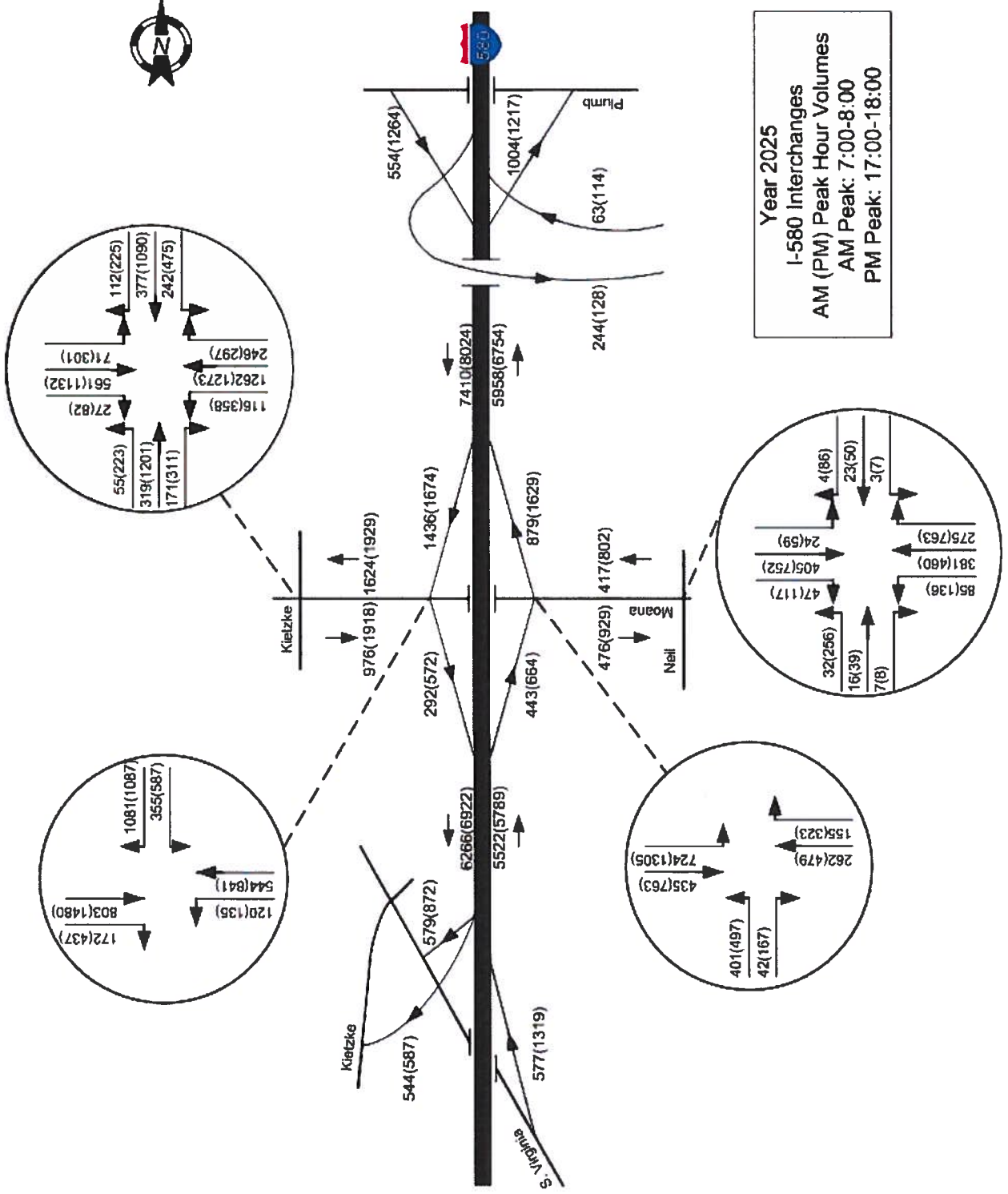
TURNING MOVEMENT AND MAINLINE VOLUMES

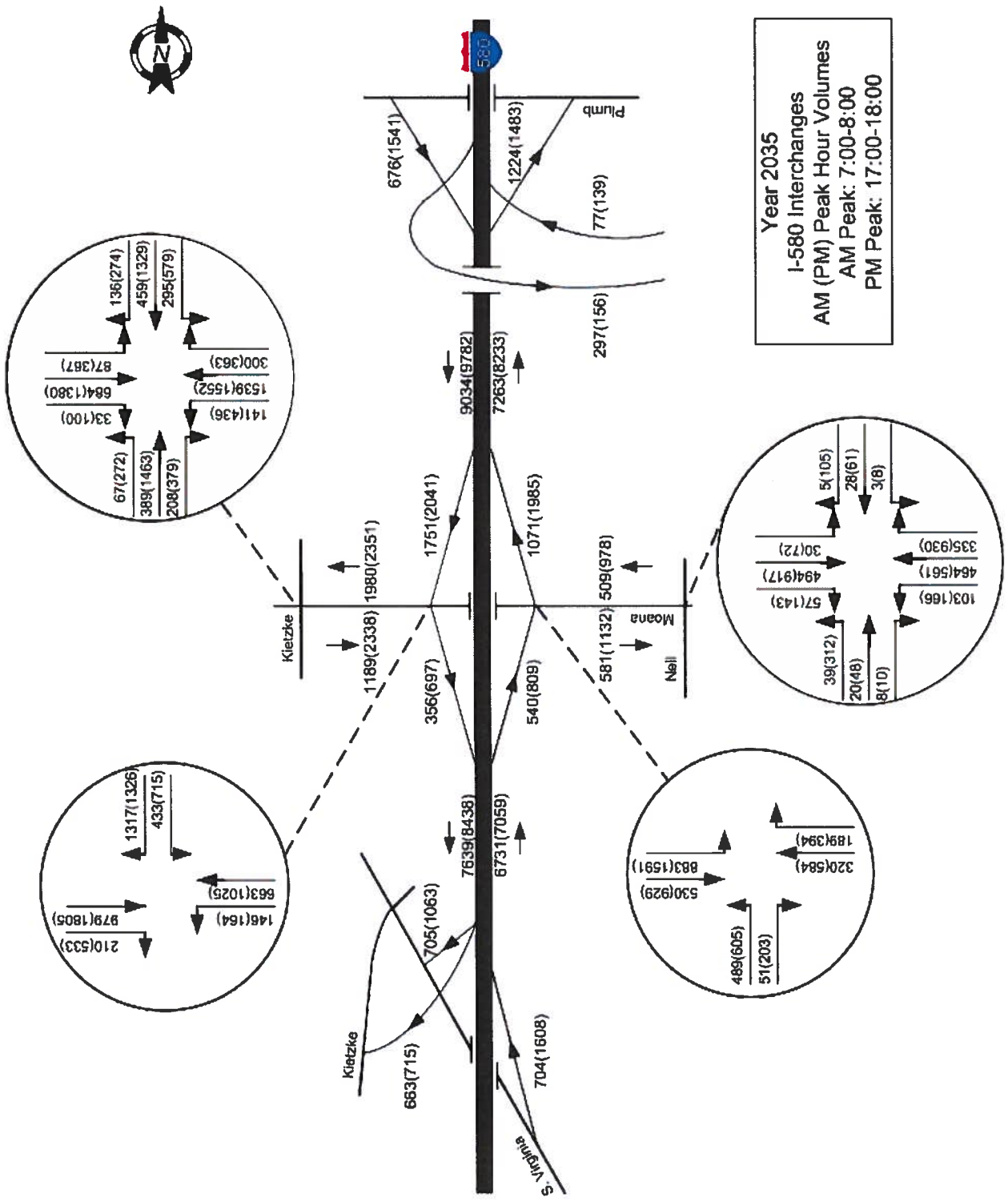


Year 2010
 I-580 Interchanges
 AM (PM) Peak Hour Volumes
 AM Peak: 7:00-8:00
 PM Peak: 17:00-18:00



Year 2015
 I-580 Interchanges
 AM (PM) Peak Hour Volumes
 AM Peak: 7:00-8:00
 PM Peak: 17:00-18:00





APPENDIX B

EXISTING CONDITION RESULTS FOR INTERSECTION DELAY

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	490	492	17.48	B	0.09
927-926	WB Moana @ Kietzke	1,207	1,188	13.68	B	0.55
931-926	NB Moana @ Kietzke	405	405	30.52	C	0.00
932-926	SB Moana @ Kietzke	543	544	39.87	D	0.04
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	725	729	0.23	A	0.15
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	725	730	25.77	C	0.19
928-927	WB Moana @ US-395 SB Off Ramp	493	462	22.82	C	1.42
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,067	1,072	0.00	A	0.15
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,067	1,073	15.80	B	0.18
927-928	EB Moana @ US-395 NB Off Ramp	861	875	2.15	A	0.48
929-928	WB Moana @ US-395 NB Off Ramp	310	304	12.83	B	0.34
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	329	300	0.00	A	1.64
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	329	301	33.53	C	1.58
928-929	EB Moana @ Neil	354	397	21.57	C	2.22
930-929	WB Moana @ Neil	550	547	14.68	B	0.13
939-929	NB Moana @ Neil	41	41	41.12	D	0.00
940-929	SB Moana @ Neil	22	23	34.18	C	0.21

Moana @ Kietzke	22.40	C
Moana @ US-395 SB Ramps	20.44	C
Moana @ US-395 NB Ramps	10.73	B
Moana @ Neil	18.91	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,126	1,127	33.81	C	0.03
927-926	WB Moana @ Kietzke	1,433	1,397	31.44	C	0.96
931-926	NB Moana @ Kietzke	1,289	1,292	37.26	D	0.08
932-926	SB Moana @ Kietzke	1,330	1,336	36.52	D	0.16
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	1,425	1,430	1.08	A	0.13
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	1,425	1,432	18.16	B	0.19
928-927	WB Moana @ US-395 SB Off Ramp	725	694	33.08	C	1.16
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,244	1,251	0.01	A	0.20
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,244	1,255	23.14	C	0.31
927-928	EB Moana @ US-395 NB Off Ramp	1,536	1,565	11.34	B	0.74
929-928	WB Moana @ US-395 NB Off Ramp	596	598	18.95	B	0.08
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	493	453	0.00	A	1.84
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	493	454	31.66	C	1.79
928-929	EB Moana @ Neil	690	740	18.50	B	1.87
930-929	WB Moana @ Neil	1,010	1,011	11.19	B	0.03
939-929	NB Moana @ Neil	225	225	42.79	D	0.00
940-929	SB Moana @ Neil	106	106	20.63	C	0.00

Moana @ Kietzke	34.73	C
Moana @ US-395 SB Ramps	23.07	C
Moana @ US-395 NB Ramps	16.60	B
Moana @ Neil	17.68	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	541	540	20.37	C	0.04
927-926	WB Moana @ Kietzke	1,333	1,333	14.67	B	0.00
931-926	NB Moana @ Kietzke	447	444	30.23	C	0.14
932-926	SB Moana @ Kietzke	600	601	35.94	D	0.04
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	800	804	0.23	A	0.14
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	800	809	30.82	C	0.32
928-927	WB Moana @ US-395 SB Off Ramp	544	530	7.56	A	0.60
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,178	1,195	0.01	A	0.49
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,178	1,196	15.10	B	0.52
927-928	EB Moana @ US-395 NB Off Ramp	951	968	1.09	A	0.55
929-928	WB Moana @ US-395 NB Off Ramp	342	340	14.24	B	0.11
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	363	349	0.30	A	0.74
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	363	351	46.51	D	0.64
928-929	EB Moana @ Neil	391	501	15.03	B	5.21
930-929	WB Moana @ Neil	607	609	14.36	B	0.08
939-929	NB Moana @ Neil	45	46	39.82	D	0.15
940-929	SB Moana @ Neil	24	24	31.32	C	0.00

Moana @ Kietzke	22.47	C
Moana @ US-395 SB Ramps	18.54	B
Moana @ US-395 NB Ramps	13.40	B
Moana @ Neil	15.98	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,243	1,243	39.27	D	0.00
927-926	WB Moana @ Kietzke	1,582	1,538	28.58	C	1.11
931-926	NB Moana @ Kietzke	1,423	1,423	31.79	C	0.00
932-926	SB Moana @ Kietzke	1,468	1,471	30.42	C	0.08
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	1,573	1,544	51.24	D	0.73
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	1,573	1,530	51.64	D	1.09
928-927	WB Moana @ US-395 SB Off Ramp	800	759	41.18	D	1.47
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,373	1,378	0.02	A	0.13
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,373	1,380	20.54	C	0.19
927-928	EB Moana @ US-395 NB Off Ramp	1,696	1,683	12.58	B	0.32
929-928	WB Moana @ US-395 NB Off Ramp	658	655	13.42	B	0.12
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	544	498	0.00	A	2.02
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	544	498	33.58	C	2.02
928-929	EB Moana @ Neil	762	830	16.53	B	2.41
930-929	WB Moana @ Neil	1,116	1,117	10.59	B	0.03
939-929	NB Moana @ Neil	249	251	44.26	D	0.13
940-929	SB Moana @ Neil	118	119	20.24	C	0.09

Moana @ Kietzke	32.20	C
Moana @ US-395 SB Ramps	37.78	D
Moana @ US-395 NB Ramps	16.46	B
Moana @ Neil	16.86	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	659	661	18.80	B	0.08
927-926	WB Moana @ Kietzke	1,624	1,616	13.55	B	0.20
931-926	NB Moana @ Kietzke	545	548	30.47	C	0.13
932-926	SB Moana @ Kietzke	731	729	37.00	D	0.07
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	975	976	6.78	A	0.03
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	975	977	67.33	E	0.06
928-927	WB Moana @ US-395 SB Off Ramp	664	632	11.55	B	1.26
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,436	1,464	0.02	A	0.74
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,436	1,465	14.90	B	0.76
927-928	EB Moana @ US-395 NB Off Ramp	1,159	1,164	12.62	B	0.15
929-928	WB Moana @ US-395 NB Off Ramp	417	415	8.47	A	0.10
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	443	410	0.00	A	1.60
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	443	410	33.05	C	1.60
928-929	EB Moana @ Neil	476	559	16.80	B	3.65
930-929	WB Moana @ Neil	741	743	14.12	B	0.07
939-929	NB Moana @ Neil	55	56	41.03	D	0.13
940-929	SB Moana @ Neil	30	30	33.92	C	0.00

Moana @ Kietzke	21.95	C
Moana @ US-395 SB Ramps	30.87	C
Moana @ US-395 NB Ramps	15.97	B
Moana @ Neil	16.71	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,515	1,226	271.64	F	7.81
927-926	WB Moana @ Kietzke	1,928	1,859	32.57	C	1.59
931-926	NB Moana @ Kietzke	1,735	1,736	76.01	E	0.02
932-926	SB Moana @ Kietzke	1,790	1,794	43.75	D	0.09
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	1,917	1,601	99.16	F	7.53
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	1,917	1,594	54.56	D	7.71
928-927	WB Moana @ US-395 SB Off Ramp	976	930	43.85	D	1.49
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,674	1,666	0.10	A	0.20
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,674	1,662	21.17	C	0.29
927-928	EB Moana @ US-395 NB Off Ramp	2,068	1,850	15.30	B	4.93
929-928	WB Moana @ US-395 NB Off Ramp	802	791	17.74	B	0.39
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	664	616	0.00	A	1.90
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	664	614	36.23	D	1.98
928-929	EB Moana @ Neil	928	916	15.74	B	0.40
930-929	WB Moana @ Neil	1,359	1,361	11.55	B	0.05
939-929	NB Moana @ Neil	303	304	42.57	D	0.06
940-929	SB Moana @ Neil	143	143	22.21	C	0.00

Moana @ Kietzke	91.31	F
Moana @ US-395 SB Ramps	55.98	E
Moana @ US-395 NB Ramps	19.84	B
Moana @ Neil	16.98	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	804	806	25.84	C	0.07
927-926	WB Moana @ Kietzke	1,980	1,782	13.98	B	4.57
931-926	NB Moana @ Kietzke	664	665	31.83	C	0.04
932-926	SB Moana @ Kietzke	890	890	36.05	D	0.00
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	1,189	1,118	108.88	F	2.09
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	1,189	1,106	85.87	F	2.45
928-927	WB Moana @ US-395 SB Off Ramp	809	758	41.59	D	1.82
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	1,750	1,563	0.01	A	4.59
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	1,750	1,559	14.09	B	4.70
927-928	EB Moana @ US-395 NB Off Ramp	1,413	1,295	2.35	A	3.21
929-928	WB Moana @ US-395 NB Off Ramp	509	509	11.71	B	0.00
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	540	482	0.00	A	2.57
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	540	485	33.73	C	2.43
928-929	EB Moana @ Neil	581	597	18.77	B	0.66
930-929	WB Moana @ Neil	902	903	12.97	B	0.03
939-929	NB Moana @ Neil	67	69	41.03	D	0.24
940-929	SB Moana @ Neil	36	36	33.46	C	0.00

Moana @ Kietzke	23.89	C
Moana @ US-395 SB Ramps	51.01	D
Moana @ US-395 NB Ramps	11.08	B
Moana @ Neil	16.79	B

LINK #	BY LINK	balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,847	1,134	452.72	F	18.47
927-926	WB Moana @ Kietzke	2,351	1,997	35.54	D	7.59
931-926	NB Moana @ Kietzke	2,114	1,760	119.80	F	8.04
932-926	SB Moana @ Kietzke	2,182	1,939	86.14	F	5.35
926-941	EB Moana @ US-395 SB Off Ramp (Segment 1)	2,338	1,581	120.60	F	17.10
941-927	EB Moana @ US-395 SB Off Ramp (Segment 2)	2,338	1,580	56.48	E	17.13
928-927	WB Moana @ US-395 SB Off Ramp	1,189	1,094	37.99	D	2.81
7934-934	SB Moana @ US-395 SB Off Ramp (Segment 1)	2,041	1,673	0.06	A	8.54
934-927	SB Moana @ US-395 SB Off Ramp (Segment 2)	2,041	1,674	20.55	C	8.52
927-928	EB Moana @ US-395 NB Off Ramp	2,520	1,837	22.34	C	14.63
929-928	WB Moana @ US-395 NB Off Ramp	978	957	25.25	C	0.68
7937-937	NB Moana @ US-395 NB Off Ramp (Segment 1)	808	699	0.01	A	3.97
937-928	NB Moana @ US-395 NB Off Ramp (Segment 2)	808	700	36.03	D	3.93
928-929	EB Moana @ Neil	1,132	990	27.02	C	4.36
930-929	WB Moana @ Neil	1,657	1,661	11.63	B	0.10
939-929	NB Moana @ Neil	370	371	46.43	D	0.05
940-929	SB Moana @ Neil	174	164	23.67	C	0.77

Moana @ Kietzke	140.88	F
Moana @ US-395 SB Ramps	61.31	E
Moana @ US-395 NB Ramps	25.88	C
Moana @ Neil	21.08	C

APPENDIX C

BUILD CONDITION (DDI) RESULTS FOR INTERSECTION DELAY

LINK #	BY LINK	Balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	541	563	23.56	C	0.94
931-926	WB Moana @ Kietzke	1,333	1,429	23.53	C	2.58
927-926	NB Moana @ Kietzke	447	463	25.98	C	0.75
928-926	SB Moana @ Kietzke	600	624	33.42	C	0.97
930-932	EB Moana @ US-395 SB Off Ramp	659	694	9.81	A	1.35
938-932	WB Moana @ US-395 SB Off Ramp	446	480	18.05	B	1.58
935-939	SB Moana @ US-395 SB Off Ramp (Left Turn)	291	305	32.60	C	0.81
935-931	SB Moana @ US-395 SB Off Ramp (Right Turn)	887	953	7.28	A	2.18
941-942	EB Moana @ US-395 NB Off Ramp	357	374	16.24	B	0.89
952-949	WB Moana @ US-395 NB Off Ramp	215	216	0.11	A	0.07
945-940	NB Moana @ US-395 NB Off Ramp (Left Turn)	329	348	31.62	C	1.03
948-952	EB Moana @ Neil	391	406	9.39	A	0.75
954-952	WB Moana @ Neil	607	627	14.36	B	0.81
951-952	NB Moana @ Neil	45	45	41.46	D	0.00
953-952	SB Moana @ Neil	24	25	38.17	D	0.20

Moana @ Kietzke	25.91	C
Moana @ US-395 SB Ramps	13.30	B
Moana @ US-395 NB Ramps	18.23	B
Moana @ Neil	14.18	B

LINK #	BY LINK	Balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,243	1,291	34.58	C	1.35
931-926	WB Moana @ Kietzke	1,582	1,645	39.99	D	1.57
927-926	NB Moana @ Kietzke	1,423	1,471	28.66	C	1.26
928-926	SB Moana @ Kietzke	1,468	1,515	29.11	C	1.22
930-932	EB Moana @ US-395 SB Off Ramp	1,214	1,268	10.65	B	1.53
938-932	WB Moana @ US-395 SB Off Ramp	690	726	17.13	B	1.35
935-939	SB Moana @ US-395 SB Off Ramp (Left Turn)	481	520	23.97	C	1.74
935-931	SB Moana @ US-395 SB Off Ramp (Right Turn)	892	924	11.23	B	1.06
941-942	EB Moana @ US-395 NB Off Ramp	625	678	14.18	B	2.08
952-949	WB Moana @ US-395 NB Off Ramp	393	388	0.49	A	0.25
945-940	NB Moana @ US-395 NB Off Ramp (Left Turn)	407	431	24.64	C	1.17
948-952	EB Moana @ Neil	762	817	6.89	A	1.96
954-952	WB Moana @ Neil	1,116	1,156	10.56	B	1.19
951-952	NB Moana @ Neil	249	258	49.47	D	0.57
953-952	SB Moana @ Neil	118	121	21.01	C	0.27

Moana @ Kietzke	33.21	C
Moana @ US-395 SB Ramps	14.19	B
Moana @ US-395 NB Ramps	13.64	B
Moana @ Neil	14.09	B

LINK #	BY LINK	Balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	659	685	22.27	C	1.00
931-926	WB Moana @ Kietzke	1,624	1,690	23.90	C	1.62
927-926	NB Moana @ Kietzke	545	563	26.94	C	0.76
928-926	SB Moana @ Kietzke	731	758	32.74	C	0.99
930-932	EB Moana @ US-395 SB Off Ramp	803	846	9.33	A	1.50
938-932	WB Moana @ US-395 SB Off Ramp	544	586	18.60	B	1.77
935-939	SB Moana @ US-395 SB Off Ramp (Left Turn)	355	360	32.20	C	0.26
935-931	SB Moana @ US-395 SB Off Ramp (Right Turn)	1,081	1,105	7.42	A	0.73
941-942	EB Moana @ US-395 NB Off Ramp	435	444	16.37	B	0.43
952-949	WB Moana @ US-395 NB Off Ramp	262	270	0.10	A	0.49
945-940	NB Moana @ US-395 NB Off Ramp (Left Turn)	401	427	30.70	C	1.28
948-952	EB Moana @ Neil	476	488	6.83	A	0.55
954-952	WB Moana @ Neil	741	767	12.59	B	0.95
951-952	NB Moana @ Neil	55	57	39.29	D	0.27
953-952	SB Moana @ Neil	30	31	33.88	C	0.18

Moana @ Kietzke	25.87	C
Moana @ US-395 SB Ramps	13.32	B
Moana @ US-395 NB Ramps	17.88	B
Moana @ Neil	12.12	B

LINK #	BY LINK	Balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,515	1,564	41.50	D	1.25
931-926	WB Moana @ Kietzke	1,928	1,909	50.16	D	0.43
927-926	NB Moana @ Kietzke	1,735	1,788	41.03	D	1.26
928-926	SB Moana @ Kietzke	1,790	1,861	31.64	C	1.66
930-932	EB Moana @ US-395 SB Off Ramp	1,480	1,538	2.19	A	1.49
938-932	WB Moana @ US-395 SB Off Ramp	841	863	17.37	B	0.75
935-939	SB Moana @ US-395 SB Off Ramp (Left Turn)	587	590	23.83	C	0.12
935-931	SB Moana @ US-395 SB Off Ramp (Right Turn)	1,087	1,063	10.54	B	0.73
941-942	EB Moana @ US-395 NB Off Ramp	763	777	14.62	B	0.50
952-949	WB Moana @ US-395 NB Off Ramp	479	475	0.71	A	0.18
945-940	NB Moana @ US-395 NB Off Ramp (Left Turn)	497	515	25.17	C	0.80
948-952	EB Moana @ Neil	928	946	6.91	A	0.59
954-952	WB Moana @ Neil	1,359	1,402	10.62	B	1.16
951-952	NB Moana @ Neil	303	315	62.34	E	0.68
953-952	SB Moana @ Neil	143	149	22.00	C	0.50

Moana @ Kietzke	41.13	D
Moana @ US-395 SB Ramps	10.76	B
Moana @ US-395 NB Ramps	13.96	B
Moana @ Neil	15.77	B

LINK #	BY LINK	Balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	804	830	22.83	C	0.91
931-926	WB Moana @ Kietzke	1,980	1,842	22.62	C	3.16
927-926	NB Moana @ Kietzke	664	688	27.36	C	0.92
928-926	SB Moana @ Kietzke	890	925	35.00	C	1.16
930-932	EB Moana @ US-395 SB Off Ramp	979	1,022	8.07	A	1.36
938-932	WB Moana @ US-395 SB Off Ramp	663	677	20.40	C	0.54
935-939	SB Moana @ US-395 SB Off Ramp (Left Turn)	433	379	31.77	C	2.68
935-931	SB Moana @ US-395 SB Off Ramp (Right Turn)	1,317	1,174	6.80	A	4.05
941-942	EB Moana @ US-395 NB Off Ramp	530	483	19.75	B	2.09
952-949	WB Moana @ US-395 NB Off Ramp	320	327	0.11	A	0.39
945-940	NB Moana @ US-395 NB Off Ramp (Left Turn)	489	484	30.69	C	0.23
948-952	EB Moana @ Neil	581	533	7.18	A	2.03
954-952	WB Moana @ Neil	902	935	12.57	B	1.09
951-952	NB Moana @ Neil	67	70	40.43	D	0.36
953-952	SB Moana @ Neil	36	38	35.91	D	0.33

Moana @ Kietzke	26.10	C
Moana @ US-395 SB Ramps	12.94	B
Moana @ US-395 NB Ramps	18.88	B
Moana @ Neil	12.55	B

LINK #	BY LINK	Balanced Volumes	Model Volumes	Delay (sec/veh)	LOS	GEH Target
925-926	EB Moana @ Kietzke	1,847	1,910	67.66	E	1.45
931-926	WB Moana @ Kietzke	2,351	2,070	53.46	D	5.98
927-926	NB Moana @ Kietzke	2,114	1,874	99.90	F	5.37
928-926	SB Moana @ Kietzke	2,182	2,093	64.85	E	1.93
930-932	EB Moana @ US-395 SB Off Ramp	1,805	1,783	2.15	A	0.52
938-932	WB Moana @ US-395 SB Off Ramp	1,025	991	17.56	B	1.07
935-939	SB Moana @ US-395 SB Off Ramp (Left Turn)	715	614	23.21	C	3.92
935-931	SB Moana @ US-395 SB Off Ramp (Right Turn)	1,326	1,071	10.38	B	7.37
941-942	EB Moana @ US-395 NB Off Ramp	929	832	14.29	B	3.27
952-949	WB Moana @ US-395 NB Off Ramp	584	565	1.01	A	0.79
945-940	NB Moana @ US-395 NB Off Ramp (Left Turn)	605	571	23.92	C	1.40
948-952	EB Moana @ Neil	1,132	1,016	7.88	A	3.54
954-952	WB Moana @ Neil	1,657	1,732	10.68	B	1.82
951-952	NB Moana @ Neil	370	361	131.95	F	0.47
953-952	SB Moana @ Neil	174	180	21.83	C	0.45

Moana @ Kietzke	70.82	E
Moana @ US-395 SB Ramps	10.45	B
Moana @ US-395 NB Ramps	13.27	B
Moana @ Neil	23.74	C

APPENDIX D

EXISTING CONDITION RESULTS FOR MAINLINE MOE's

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	3,774	3,947	61.83	21.27	C	2.78
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	4,427	4,591	60.85	15.09	B	2.44
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	4,427	4,589	61.06	15.03	B	2.41
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	3,681	3,596	62.47	14.39	B	1.41
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4,439	4,609	61.24	25.08	C	2.53
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	4,656	4,818	56.05	26.53	D	2.35
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	4,656	4,815	59.00	27.21	D	2.31
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	3,822	3,950	61.92	21.26	C	2.05

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,320	61.28	21.53	C
		2	1,393	62.46	22.29	C
		3	1,236	61.73	20.01	C
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,118	61.07	18.31	C
		2	1,173	62.69	18.70	C
		3	1,025	62.45	16.40	B
		Aux 1	1,145	57.95	19.76	C
		Aux 2	131	57.55	2.27	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,334	58.22	22.91	C
		1	961	61.79	15.54	B
		2	1,099	62.96	17.45	B
		3	1,013	62.51	16.20	B
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	Aux 2	184	60.15	3.05	A
		1	560	61.48	9.10	A
		2	928	62.63	14.81	B
		3	1,091	62.97	17.32	B
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4	1,018	62.35	16.32	B
		1	1,592	59.54	26.74	D
		2	1,677	62.07	27.00	D
		3	1,341	62.31	21.51	C
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	1,854	50.28	36.85	E
		2	1,666	60.28	27.64	D
		3	1,273	62.39	20.40	C
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	1,893	55.46	34.13	D
		2	1,582	60.91	25.96	C
		3	1,341	62.31	21.51	C
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,076	61.16	17.59	B
		2	1,499	62.10	24.13	C
		3	1,376	62.34	22.07	C

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	3,808	3,978	61.92	21.41	C	2.72
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	5,018	5,191	59.97	17.31	B	2.42
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	5,018	5,197	59.97	17.33	B	2.50
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,114	4,153	62.04	16.74	B	0.61
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4,718	4,890	60.27	27.04	D	2.48
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	5,143	5,312	50.79	32.28	D	2.34
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	5,143	5,310	56.88	31.11	D	2.31
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	4,059	4,167	61.61	22.54	C	1.68

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,311	61.46	21.33	C
		2	1,409	62.46	22.54	C
		3	1,259	61.79	20.37	C
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,213	61.09	19.84	C
		2	1,181	62.71	18.82	C
		3	1,035	62.46	16.56	B
		Aux 1	1,515	56.16	26.96	D
		Aux 2	250	57.20	4.36	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,704	56.53	30.14	D
		1	1,091	60.83	17.92	B
		2	1,127	62.82	17.93	B
		3	1,017	62.46	16.27	B
		Aux 2	260	59.21	4.38	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	894	60.33	14.82	B
		2	1,088	62.39	17.44	B
		3	1,144	62.90	18.19	C
		4	1,028	62.25	16.50	B
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,621	57.78	28.04	D
		2	1,800	61.32	29.35	D
		3	1,470	61.93	23.73	C
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,015	42.51	47.38	F
		2	1,846	57.46	32.11	D
		3	1,401	61.72	22.70	C
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,086	52.54	39.70	E
		2	1,717	58.91	29.13	D
		3	1,508	61.50	24.51	C
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,042	61.35	16.97	B
		2	1,589	61.50	25.84	C
		3	1,537	61.90	24.82	C

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	4,167	4,326	61.63	23.40	C	2.44
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	4,888	4,975	60.87	16.35	B	1.24
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	4,888	4,971	60.99	16.30	B	1.18
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,064	3,888	62.30	15.60	B	2.79
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4,901	5,072	60.62	27.89	D	2.42
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	5,141	5,307	54.54	30.03	D	2.30
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	5,141	5,302	58.20	30.36	D	2.23
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	4,220	4,341	61.60	23.49	C	1.85

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,438	61.15	23.51	C
		2	1,517	62.18	24.39	C
		3	1,372	61.53	22.29	C
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,223	61.11	20.01	C
		2	1,279	62.49	20.46	C
		3	1,138	62.27	18.27	C
		Aux 1	1,201	58.15	20.64	C
		Aux 2	136	57.67	2.35	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,416	58.13	24.35	C
		1	1,034	61.70	16.76	B
		2	1,197	62.91	19.02	C
		3	1,112	62.33	17.83	B
		Aux 2	215	60.30	3.55	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	589	61.29	9.60	A
		2	995	62.50	15.92	B
		3	1,197	62.80	19.06	C
		4	1,108	62.15	17.82	B
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,690	58.91	28.68	D
		2	1,835	61.37	29.89	D
		3	1,547	61.69	25.08	C
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	1,982	47.89	41.37	E
		2	1,829	59.21	30.88	D
		3	1,467	61.88	23.71	C
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,030	54.43	37.29	E
		2	1,735	60.06	28.88	D
		3	1,538	61.70	24.91	C
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,147	61.27	18.71	C
		2	1,636	61.69	26.52	D
		3	1,558	61.76	25.23	C

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	4,205	4,415	61.48	23.93	C	3.20
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	5,540	5,663	59.72	18.96	C	1.64
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	5,540	5,660	59.64	18.98	C	1.60
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,542	4,519	61.83	18.27	C	0.34
368-369	US-395 SB Freeway Section N. of Moana On Ramp	5,209	5,390	59.07	30.41	D	2.49
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	5,678	5,826	48.63	37.00	E	1.95
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	5,678	5,821	54.79	35.44	E	1.89
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	4,482	4,558	61.05	24.89	C	1.13

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,448	61.04	23.71	C
		2	1,553	62.02	25.04	C
		3	1,415	61.36	23.05	C
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,337	60.68	22.03	C
		2	1,324	62.29	21.24	C
		3	1,161	62.30	18.63	C
		Aux 1	1,571	55.74	28.17	D
		Aux 2	273	57.38	4.74	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,783	55.75	31.98	D
		1	1,193	60.50	19.71	C
		2	1,241	62.64	19.81	C
		3	1,145	62.39	18.34	C
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	Aux 2	300	59.17	5.07	A
		1	926	60.11	15.40	B
		2	1,180	62.03	19.02	C
		3	1,261	62.68	20.11	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4	1,152	62.13	18.54	C
		1	1,694	55.94	30.27	D
		2	1,949	60.35	32.29	D
		3	1,747	60.94	28.66	D
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,137	39.23	54.46	F
		2	1,981	55.79	35.51	E
		3	1,653	60.87	27.15	D
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,222	49.52	44.87	E
		2	1,837	57.06	32.19	D
		3	1,763	60.43	29.16	D
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,081	61.01	17.72	B
		2	1,704	61.00	27.92	D
		3	1,774	61.12	29.01	D

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	5,079	5,296	60.71	29.08	D	3.01
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	5,958	6,095	59.66	20.43	C	1.76
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	5,958	6,094	59.56	20.46	C	1.75
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,954	4,788	61.42	19.49	C	2.38
368-369	US-395 SB Freeway Section N. of Moana On Ramp	5,974	6,129	57.19	35.73	E	1.99
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	6,266	6,419	48.83	40.59	E	1.92
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	6,266	6,417	54.06	39.57	E	1.90
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	5,143	5,260	60.10	29.17	D	1.62

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,759	60.23	29.19	D
		2	1,831	61.23	29.90	D
		3	1,707	60.64	28.14	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,511	59.79	25.25	C
		2	1,568	61.50	25.48	C
		3	1,418	61.66	23.00	C
		Aux 1	1,395	56.11	24.85	C
		Aux 2	205	57.41	3.57	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,657	55.54	29.83	D
		1	1,286	60.14	21.37	C
		2	1,444	62.04	23.26	C
		3	1,392	61.78	22.52	C
		Aux 2	317	59.56	5.32	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	733	59.91	12.23	B
		2	1,216	61.53	19.76	C
		3	1,446	62.08	23.28	C
		4	1,394	61.45	22.68	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,855	54.34	34.13	D
		2	2,156	58.53	36.83	E
		3	2,119	58.53	36.19	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,227	39.80	55.96	F
		2	2,177	53.94	40.36	E
		3	1,977	59.39	33.28	D
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,307	48.94	47.12	F
		2	2,045	55.99	36.51	E
		3	2,067	58.96	35.05	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,297	60.52	21.42	C
		2	1,908	60.23	31.67	D
		3	2,056	59.70	34.43	D

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	5,125	5,367	60.74	29.45	D	3.34
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	6,754	6,740	59.06	22.82	C	0.17
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	6,754	6,737	58.51	23.03	C	0.21
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	5,537	5,317	61.14	21.74	C	2.99
368-369	US-395 SB Freeway Section N. of Moana On Ramp	6,350	6,196	53.83	38.40	E	1.94
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	6,922	6,670	42.47	48.55	F	3.06
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	6,922	6,670	50.85	43.73	E	3.06
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	5,463	5,207	59.73	29.06	D	3.50

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,772	60.42	29.33	D
		2	1,861	61.17	30.41	D
		3	1,736	60.62	28.62	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,643	59.64	27.54	D
		2	1,571	61.56	25.51	C
		3	1,423	61.77	23.02	C
		Aux 1	1,781	54.96	32.39	D
		Aux 2	324	57.41	5.64	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	2,044	53.71	38.05	E
		1	1,425	59.42	23.98	C
		2	1,467	62.11	23.62	C
		3	1,391	61.86	22.48	C
		Aux 2	411	58.52	7.02	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	1,031	59.18	17.41	B
		2	1,399	61.31	22.82	C
		3	1,494	62.08	24.06	C
		4	1,394	61.45	22.68	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,794	46.65	38.44	E
		2	2,186	56.72	38.52	E
		3	2,217	58.24	38.06	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,292	31.98	71.67	F
		2	2,230	48.71	45.78	F
		3	2,081	57.81	35.99	E
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,437	44.62	54.61	F
		2	2,047	53.28	38.41	E
		3	2,187	57.36	38.12	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,188	60.45	19.64	C
		2	1,868	59.88	31.19	D
		3	2,152	59.22	36.33	E

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	6,191	6,079	60.12	33.70	D	1.43
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	7,263	7,014	59.07	23.75	C	2.95
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	7,263	7,019	58.88	23.84	C	2.89
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	6,038	5,508	60.99	22.58	C	6.98
368-369	US-395 SB Freeway Section N. of Moana On Ramp	7,283	6,436	55.26	38.83	E	10.23
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	7,639	6,770	45.90	45.56	F	10.24
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	7,639	6,763	52.19	43.20	E	10.32
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	6,271	5,556	59.46	31.14	D	9.30

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	2,019	59.71	33.80	D
		2	2,085	60.66	34.37	D
		3	1,976	59.98	32.94	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,776	59.07	30.07	D
		2	1,790	61.04	29.32	D
		3	1,639	61.20	26.77	D
		Aux 1	1,568	55.27	28.35	D
		Aux 2	243	57.29	4.23	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,889	54.19	34.85	D
		1	1,500	59.87	25.05	C
		2	1,641	61.63	26.62	D
		3	1,594	61.37	25.97	C
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	Aux 2	396	58.96	6.72	A
		1	851	59.55	14.28	B
		2	1,417	61.20	23.15	C
		3	1,646	61.63	26.70	D
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4	1,596	60.92	26.19	D
		1	1,900	51.12	37.15	E
		2	2,248	57.22	39.29	E
		3	2,289	57.21	40.00	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,297	35.86	64.05	F
		2	2,285	51.45	44.40	E
		3	2,141	58.53	36.58	E
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,382	46.42	51.30	F
		2	2,141	54.14	39.53	E
		3	2,241	57.87	38.73	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,358	60.18	22.55	C
		2	1,980	59.69	33.16	D
		3	2,219	58.82	37.72	E

LINK #	BY LINK	balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	6,250	5,928	60.29	32.77	D	4.13
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	8,235	7,360	58.60	25.12	C	9.91
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	8,235	7,356	57.80	25.46	C	9.96
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	6,752	5,829	60.76	23.98	C	11.64
368-369	US-395 SB Freeway Section N. of Moana On Ramp	7,741	6,396	50.28	42.56	E	16.00
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	8,438	6,898	39.06	54.56	F	17.59
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	8,438	6,903	48.69	47.27	F	17.53
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	6,660	5,341	59.25	30.05	D	17.03

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,924	59.97	32.07	D
		2	2,050	60.67	33.78	D
		3	1,955	60.20	32.47	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,792	59.24	30.25	D
		2	1,749	61.10	28.61	D
		3	1,616	61.35	26.33	D
		Aux 1	1,861	54.13	34.36	D
		Aux 2	345	56.91	6.05	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	2,146	52.35	40.99	E
		1	1,555	58.84	26.42	D
		2	1,621	61.55	26.33	D
		3	1,577	61.53	25.62	C
		Aux 2	459	57.98	7.90	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	1,096	58.67	18.67	C
		2	1,513	61.06	24.78	C
		3	1,644	61.66	26.65	D
		4	1,577	61.08	25.82	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,832	41.00	44.67	E
		2	2,272	53.62	42.37	E
		3	2,292	57.30	39.99	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,334	28.51	81.87	F
		2	2,294	44.72	51.29	F
		3	2,199	55.76	39.42	E
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,498	41.89	59.63	F
		2	2,098	51.32	40.87	E
		3	2,308	55.93	41.26	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,194	60.10	19.85	C
		2	1,896	59.46	31.88	D
		3	2,252	58.65	38.40	E

APPENDIX E

BUILD CONDITION (DDI) RESULTS FOR MAINLINE MOE's

LINK #	BY LINK	Balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	4,167	4,321	61.64	23.36	C	2.36
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	4,888	5,071	60.78	16.68	B	2.59
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	4,888	5,070	61.34	16.53	B	2.58
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,064	4,198	62.15	16.89	B	2.08
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4,901	5,063	60.68	27.81	D	2.30
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	5,141	5,285	54.90	29.71	D	1.99
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	5,141	5,285	58.30	30.22	D	1.99
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	4,220	4,343	61.55	23.52	C	1.88

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,414	61.22	23.10	C
		2	1,511	62.20	24.28	C
		3	1,397	61.47	22.71	C
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,236	61.03	20.25	C
		2	1,360	62.37	21.79	C
		3	1,242	61.92	20.05	C
		Aux 1	1,012	57.94	17.45	B
		Aux 2	223	57.48	3.88	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,219	59.08	20.63	C
		1	1,092	61.83	17.66	B
		2	1,291	62.62	20.61	C
		3	1,230	62.02	19.82	C
		Aux 2	240	60.82	3.93	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	632	62.05	10.18	A
		2	1,053	62.25	16.91	B
		3	1,284	62.45	20.56	C
		4	1,230	61.82	19.89	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,685	58.95	28.58	D
		2	1,845	61.46	30.00	D
		3	1,534	61.72	24.85	C
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	1,965	48.41	40.58	E
		2	1,842	59.32	31.04	D
		3	1,450	61.88	23.43	C
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,025	54.63	37.05	E
		2	1,745	60.16	29.00	D
		3	1,517	61.63	24.60	C
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,153	61.26	18.82	C
		2	1,646	61.61	26.72	D
		3	1,544	61.71	25.01	C

LINK #	BY LINK	Balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	4,205	4,355	61.56	23.58	C	2.29
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	5,540	5,735	59.79	19.18	C	2.60
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	5,540	5,737	60.23	19.05	C	2.62
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,542	4,679	61.74	18.95	C	2.02
368-369	US-395 SB Freeway Section N. of Moana On Ramp	5,209	5,369	59.27	30.19	D	2.20
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	5,678	5,830	48.70	36.95	E	2.00
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	5,678	5,830	55.32	35.13	E	2.00
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	4,482	4,589	61.05	25.05	C	1.59

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,405	61.29	22.92	C
		2	1,541	62.07	24.82	C
		3	1,409	61.28	22.99	C
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,306	60.83	21.45	C
		2	1,379	62.29	22.14	C
		3	1,244	61.84	20.11	C
		Aux 1	1,400	55.79	25.09	C
		Aux 2	407	57.12	7.12	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,572	56.69	27.72	D
		1	1,224	61.19	20.00	C
		2	1,325	62.49	21.19	C
		3	1,232	61.86	19.90	C
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	Aux 2	387	59.98	6.44	A
		1	897	60.49	14.83	B
		2	1,220	62.10	19.65	C
		3	1,329	62.35	21.31	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	4	1,234	61.66	20.01	C
		1	1,670	56.28	29.67	D
		2	1,955	60.40	32.35	D
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	3	1,745	61.08	28.55	D
		1	2,103	39.11	53.77	F
		2	2,019	55.75	36.20	E
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	3	1,651	60.97	27.07	D
		1	2,202	50.37	43.71	E
		2	1,865	57.39	32.49	D
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	3	1,764	60.43	29.18	D
		1	1,099	61.15	17.96	B
		2	1,712	60.95	28.08	D
		3	1,779	61.09	29.11	D

LINK #	BY LINK	Balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	5,079	5,250	60.76	28.80	D	2.38
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	5,958	6,166	59.91	20.58	C	2.67
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	5,958	6,163	60.43	20.39	C	2.63
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	4,954	5,072	61.53	20.61	C	1.67
368-369	US-395 SB Freeway Section N. of Moana On Ramp	5,974	6,182	57.43	35.88	E	2.67
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	6,266	6,457	49.05	40.65	E	2.39
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	6,266	6,448	53.88	39.91	E	2.28
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	5,143	5,291	60.08	29.36	D	2.05

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,706	60.46	28.21	D
		2	1,830	61.23	29.89	D
		3	1,715	60.59	28.29	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,498	60.14	24.89	C
		2	1,644	61.53	26.70	D
		3	1,519	61.25	24.80	C
		Aux 1	1,222	56.74	21.52	C
		Aux 2	286	57.10	4.99	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,466	57.58	25.45	C
		1	1,324	61.11	21.66	C
		2	1,552	61.97	25.04	C
		3	1,494	61.32	24.35	C
		Aux 2	328	60.05	5.46	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	771	61.34	12.55	B
		2	1,271	61.78	20.57	C
		3	1,546	61.86	24.98	C
		4	1,486	61.06	24.32	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,863	54.97	33.88	D
		2	2,165	58.52	36.98	E
		3	2,155	58.62	36.76	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,212	39.74	55.64	F
		2	2,198	54.06	40.65	E
		3	2,011	59.62	33.72	D
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,298	48.62	47.24	F
		2	2,057	55.65	36.96	E
		3	2,095	59.04	35.47	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,300	60.59	21.46	C
		2	1,909	60.15	31.72	D
		3	2,083	59.69	34.89	D

LINK #	BY LINK	Balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	5,125	5,315	60.83	29.12	D	2.63
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	6,754	7,000	58.93	23.75	C	2.97
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	6,754	6,999	58.81	23.80	C	2.95
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	5,537	5,684	60.94	23.32	C	1.96
368-369	US-395 SB Freeway Section N. of Moana On Ramp	6,350	6,222	48.27	43.70	E	1.61
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	6,922	6,765	39.79	52.60	F	1.90
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	6,922	6,764	49.85	45.26	F	1.91
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	5,463	5,317	59.43	29.82	D	1.99

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,697	60.61	28.00	D
		2	1,855	61.29	30.26	D
		3	1,763	60.57	29.10	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,607	59.92	26.81	D
		2	1,665	61.52	27.06	D
		3	1,554	61.30	25.34	C
		Aux 1	1,662	54.43	30.52	D
		Aux 2	514	56.84	9.03	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,871	54.13	34.55	D
		1	1,490	59.43	25.07	C
		2	1,596	61.83	25.81	C
		3	1,528	61.40	24.88	C
		Aux 2	515	59.32	8.67	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	1,073	59.30	18.08	C
		2	1,468	61.21	23.98	C
		3	1,614	61.68	26.15	D
		4	1,531	61.09	25.05	C
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,773	39.49	44.88	E
		2	2,181	50.84	42.89	E
		3	2,269	55.82	40.64	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,290	29.34	78.03	F
		2	2,243	45.75	49.01	F
		3	2,156	55.49	38.84	E
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,433	43.45	55.99	F
		2	2,075	52.28	39.68	E
		3	2,257	56.42	40.00	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,211	60.19	20.12	C
		2	1,894	59.63	31.76	D
		3	2,212	58.86	37.57	E

LINK #	BY LINK	Balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	6,191	6,033	60.23	33.39	D	2.02
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	7,263	7,152	59.18	24.17	C	1.31
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	7,263	7,147	59.22	24.13	C	1.37
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	6,039	5,900	60.78	24.27	C	1.80
368-369	US-395 SB Freeway Section N. of Moana On Ramp	7,283	6,446	56.00	38.37	E	10.10
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	7,639	6,781	46.29	45.24	F	10.10
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	7,639	6,780	52.36	43.17	E	10.12
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	6,271	5,558	59.60	31.09	D	9.27

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,964	60.07	32.68	D
		2	2,078	60.59	34.28	D
		3	1,992	60.00	33.20	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,754	59.60	29.41	D
		2	1,878	60.85	30.86	D
		3	1,763	60.78	29.01	D
		Aux 1	1,410	55.39	25.45	C
		Aux 2	348	56.85	6.11	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	1,683	55.17	30.49	D
		1	1,559	59.80	26.06	D
		2	1,768	61.29	28.83	D
		3	1,732	60.87	28.45	D
		Aux 2	407	59.50	6.83	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	923	60.15	15.34	B
		2	1,492	61.09	24.41	C
		3	1,760	61.14	28.78	D
		4	1,727	60.50	28.54	D
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,904	52.99	35.92	E
		2	2,252	57.49	39.16	E
		3	2,291	57.27	40.00	E
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,280	35.89	63.53	F
		2	2,312	51.97	44.48	E
		3	2,144	58.82	36.44	E
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,378	46.67	50.94	F
		2	2,153	54.31	39.62	E
		3	2,251	57.82	38.92	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,346	60.37	22.28	C
		2	1,985	59.84	33.16	D
		3	2,229	58.93	37.82	E

LINK #	BY LINK	Balanced Volumes	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS	GEH Target
132-133	US-395 NB Freeway Section S. of Moana On Ramp	6,250	5,878	60.35	32.46	D	4.78
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	8,233	7,850	58.06	27.04	D	4.27
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	8,233	7,858	57.40	27.38	D	4.18
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	6,750	6,375	60.22	26.46	D	4.63
368-369	US-395 SB Freeway Section N. of Moana On Ramp	7,741	6,324	37.83	56.82	F	16.90
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	8,438	6,969	34.53	62.38	F	16.74
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	8,438	6,968	47.20	49.22	F	16.75
371-372	US-395 SB Freeway Section S. of S. Virginia Off Ramp	6,660	5,386	58.82	30.52	D	16.42

LINK #	BY LANE	Lane no.	Model Volumes	Speed (mph)	Density (veh/mi/ln)	LOS
132-133	US-395 NB Freeway Section S. of Moana On Ramp	1	1,868	60.19	31.03	D
		2	2,044	60.68	33.68	D
		3	1,967	60.17	32.68	D
133-134	US-395 NB Weaving Section btw Moana & Plumb I/C	1	1,789	59.23	30.20	D
		2	1,844	60.87	30.30	D
		3	1,733	61.02	28.40	D
		Aux 1	1,871	52.78	35.44	E
		Aux 2	614	56.45	10.87	A
134-135	US-395 NB Weaving Section btw Moana & Plumb I/C	Aux 1	2,087	51.26	40.71	E
		1	1,669	58.43	28.55	D
		2	1,760	61.12	28.79	D
		3	1,713	61.06	28.05	D
		Aux 2	631	58.42	10.79	A
135-136	US-395 NB Freeway Section N. of Plumb Off Ramp	1	1,225	58.38	20.97	C
		2	1,645	60.28	27.28	D
		3	1,780	61.06	29.15	D
		4	1,727	60.67	28.45	D
368-369	US-395 SB Freeway Section N. of Moana On Ramp	1	1,758	26.05	67.47	F
		2	2,220	41.06	54.05	F
		3	2,347	51.85	45.25	F
369-370	US-395 SB Merging Section btw Moana & S. Virginia I/C	1	2,320	24.93	93.02	F
		2	2,242	39.13	57.28	F
		3	2,311	50.26	45.97	F
370-371	US-395 SB Freeway Section btw Moana & S. Virginia I/C	1	2,512	40.86	61.45	F
		2	2,087	49.81	41.89	E
		3	2,371	53.56	44.25	E
371-372	US-395 SB Freeway Section South of S. Virginia Off Ramp	1	1,219	59.98	20.31	C
		2	1,892	59.01	32.05	D
		3	2,277	58.06	39.21	E