

APPENDIX D

Year 2018 Existing LOS Exhibits

I-41 Traffic and Engineering Study
Existing Conditions
Synchro* Intersection Peak Hour Traffic Operations (HCM6)

Existing Intersection Operations																
Intersection	Scenario	Traffic Control	Peak Hour	Lane Group	EBL	East EBT	EBR	WBL	West WBT	WBR	NBL	North NBT	NBR	SBL	South SBT	SBR
IH 41 NB ramps & CTH S (Freedom Rd)	Existing	Stop Controlled	AM	Lane Configurations	1	1	0	0	1	1	0	<1	1	0	0	0
				Volume (vph)	270	90	-	-	150	100	50	0	70	-	-	-
				Total Delay	8.7	0	-	-	0	0	27.1	27.1	9.2	-	-	-
				LOS	A	A	-	-	A	A	D	D	A	-	-	-
			PM	Volume (vph)	150	110	-	-	120	130	60	0	90	-	-	-
				Total Delay	8.2	0	-	-	0	0	17.3	17.3	9.4	-	-	-
				LOS	A	A	-	-	A	A	C	C	A	-	-	-
IH 41 SB ramps & CTH S (Freedom Rd)	Existing	Stop Controlled	AM	Lane Configurations	0	1	1	1	1	0	0	0	0	0	<1	1
				Volume (vph)	-	320	90	100	100	-	-	-	-	40	0	-
				Total Delay	-	0	0	8.7	0	-	-	-	-	18	18	-
				LOS	-	A	A	A	A	-	-	-	-	C	C	-
			PM	Volume (vph)	-	190	80	80	100	-	-	-	-	70	0	-
				Total Delay	-	0	0	8.1	0	-	-	-	-	15	15	-
				LOS	-	A	A	A	A	-	-	-	-	B	B	-
IH 41 NB ramps & CTH U (County Line Rd)	Existing	Stop Controlled	AM	Lane Configurations	0	<1>	0	0	0	0	0	1	1	1	1	0
				Volume (vph)	30	0	50	-	-	-	-	110	190	30	250	-
				Total Delay	12	12	12	-	-	-	-	0	0	8	0	-
				LOS	B	B	B	-	-	-	-	A	A	A	A	-
			PM	Volume (vph)	60	0	50	-	-	-	-	180	100	40	230	-
				Total Delay	13.7	13.7	13.7	-	-	-	-	0	0	8	0	-
				LOS	B	B	B	-	-	-	-	A	A	A	A	-
IH 41 SB ramps & CTH U (County Line Rd)	Existing	Stop Controlled	AM	Lane Configurations	0	0	0	0	<1>	0	1	1	0	0	1	1
				Volume (vph)	-	-	-	80	0	50	60	80	-	-	200	-
				Total Delay	-	-	-	12.7	12.7	12.7	8	0	-	-	0	-
				LOS	-	-	-	B	B	B	A	A	-	-	A	-
			PM	Volume (vph)	-	-	-	170	0	100	70	170	-	-	100	-
				Total Delay	-	-	-	17.3	17.3	17.3	7.6	0	-	-	0	-
				LOS	-	-	-	C	C	C	A	A	-	-	A	-
IH 41 NB ramps & CTH J (Hyland Ave)	Existing	Roundabout*	AM	Lane Configurations	0	<1>	0	0	0	0	0	1>	0	0	<1	0
				Volume (vph)	110	0	100	-	-	-	-	230	300	50	150	-
				Total Delay	5.6	5.6	5.6	-	-	-	-	10.5	10.5	4.5	4.5	-
				LOS	A	A	A	-	-	-	-	B	B	A	A	-
			PM	Volume (vph)	100	0	260	-	-	-	-	170	190	60	380	-
				Total Delay	10.1	10.1	10.1	-	-	-	-	7	7	6.7	6.7	-
				LOS	B	B	B	-	-	-	-	A	A	A	A	-
IH 41 SB ramps & CTH J (Hyland Ave)	Existing	Roundabout*	AM	Lane Configurations	0	0	0	0	<1>	0	0	<1	0	0	1>	0
				Volume (vph)	-	-	-	110	0	40	160	180	-	-	90	160
				Total Delay	-	-	-	6.1	6.1	6.1	5.6	5.6	-	-	7.9	7.9
				LOS	-	-	-	A	A	A	A	A	-	-	A	A
			PM	Volume (vph)	-	-	-	280	0	70	100	170	-	-	160	160
				Total Delay	-	-	-	9.6	9.6	9.6	5.2	5.2	-	-	11.3	11.3
				LOS	-	-	-	A	A	A	A	A	-	-	B	B
IH 41 NB ramps & WIS 55 (Delanglade St)	Existing	Roundabout*	AM	Lane Configurations	0	<1	1	0	0	0	0	2	1	1	1	0
				Volume (vph)	30	0	260	-	-	-	-	450	110	20	210	-
				Total Delay	3.9	3.9	6.4	-	-	-	-	5.4	3.8	3.1	4.5	-
				LOS	A	A	A	-	-	-	-	A	A	A	A	-
			PM	Volume (vph)	60	0	360	-	-	-	-	520	100	20	280	-
				Total Delay	4.5	4.5	8.6	-	-	-	-	6.9	3.7	3.1	5.1	-
				LOS	A	A	A	-	-	-	-	A	A	A	A	-
IH 41 SB ramps & WIS 55 (Delanglade St)	Existing	Roundabout*	AM	Lane Configurations	0	0	0	0	<1	1	0	<2	0	0	1	1
				Volume (vph)	-	-	-	80	0	40	270	210	-	-	150	90
				Total Delay	-	-	-	5.1	5.1	3.7	4.8	4.3	-	-	5.6	4.5
				LOS	-	-	-	A	A	A	A	A	-	-	A	A
			PM	Volume (vph)	-	-	-	160	0	30	390	190	-	-	140	50
				Total Delay	-	-	-	6.7	6.7	3.6	5.9	4.2	-	-	6.6	4.6
				LOS	-	-	-	A	A	A	A	A	-	-	A	A
IH 41 NB ramps & CTH N (Freedom Rd)	Existing	Signalized	AM	Lane Configurations	0	<1	1	0	0	0	0	2	1	1	2	0
				Volume (vph)	90	-	170	-	-	-	-	440	180	40	230	-
				Total Delay	20.4	-	0	-	-	-	-	11.1	0	9.5	3.1	-
				LOS	C	-	A	-	-	-	-	B	A	A	A	-
			PM	Volume (vph)	380	-	350	-	-	-	-	430	130	60	500	-
				Total Delay	39.8	-	0	-	-	-	-	14.2	0	13.1	5.6	-
				LOS	D	-	A	-	-	-	-	B	A	B	A	-
IH 41 SB ramps & CTH N (Freedom Rd)	Existing	Signalized	AM	Lane Configurations	0	0	0	0	<1	1	1	2	0	0	2	1
				Volume (vph)	-	-	-	120	-	40	320	210	-	-	150	230
				Total Delay	-	-	-	20.3	-	0	11.1	3.4	-	-	10.5	0
				LOS	-	-	-	C	-	A	B	A	-	-	B	A
			PM	Volume (vph)	-	-	-	320	-	70	330	480	-	-	240	170
				Total Delay	-	-	-	23.3	-	0	17.9	6.2	-	-	13.9	0
				LOS	-	-	-	C	-	A	B	A	-	-	B	A
IH 41 NB ramps & CTH E (Ballard Rd)	Existing	Signalized	AM	Lane Configurations	2	1	1	0	0	0	0	2	1	1	2	0
				Volume (vph)	440	-	330	-	-	-	-	600	270	690	260	-
				Total Delay	40	-	0	-	-	-	-	16.5	0	26.1	0.1	-
				LOS	D	-	A	-	-	-	-	B	A	C	A	-
			PM	Volume (vph)	340	-	150	-	-	-	-	1070	190	490	700	-
				Total Delay	37.2	-	0	-	-	-	-	52.5	0	36.7	17.8	-
				LOS	D	-	A	-	-	-	-	F	A	D	B	-
IH 41 SB ramps & CTH E (Ballard Rd)	Existing	Signalized	AM	Lane Configurations	0	0	0	2	1	1	1	2	0	0	2	1
				Volume (vph)	-	-	-	230	-	540	160	880	-	-	720	460
				Total Delay	-	-	-	30.7	-	0	16.6	23.8	-	-	30.3	0
				LOS	-	-	-	C	-	A	B	C	-	-	C	A
			PM	Volume (vph)	-	-	-	230	-	410	430	980	-	-	960	540
				Total Delay	-	-	-	34	-	0	27	13.6	-	-	25	0
				LOS	-	-	-	C	-	A	C	B	-	-	C	A
IH 41 NB ramps & WIS 47 (Richmond St)	Existing	Signalized	AM	Lane Configurations	2	1	1	0	0	0	0	2	1	1	2	0
				Volume (vph)	210	-	140	-	-	-	-	490	410	250	580	-
				Total Delay	42.7	-	0	-	-	-	-	22	0	7.5	12.7	-
				LOS	D	-	A	-	-	-	-	C	A	A	B	-
			PM	Volume (vph)	360	-	250	-	-	-	-	810	500	240	960	-
				Total Delay	41.4	-	0	-	-	-	-	30.1	0	11.7	10.5	-
				LOS	D	-	A	-	-	-	-	C	A	B	B	-
IH 41 SB ramps & WIS 47 (Richmond St)	Existing	Signalized	AM	Lane Configurations	0	0	0	2	1	1	1	2	0	0	2	1
				Volume (vph)	-	-	-	280	-	190	340	360	-	-	550	350
				Total Delay	-	-	-	42.3	-	0	4.6	0.1	-	-	19.9	0
				LOS	-	-	-	D	-	A	A	A	-	-	B	A
			PM	Volume (vph)	-	-	-	500	-	230	200	970	-	-	700	240
				Total Delay	-	-	-	40.7	-	0	5.1	0.2	-	-	26.8	0
				LOS	-	-	-	D	-	A	A	A	-	-	C	A

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IH 41 NB ramps & WIS 15 (Northland Ave)	Existing	Signalized	AM	Lane Configurations	1	2	0	0	2	1	0	<1	1	0	0	0
				Volume (vph)	490	780	-	-	760	140	160	-	410	-	-	-
				Total Delay	41.9	4.4	-	-	21.6	0	32.9	-	0	-	-	-
				LOS	D	A	-	-	C	A	C	-	A	-	-	-
			PM	Volume (vph)	720	920	-	-	1220	280	240	-	750	-	-	-
				Total Delay	164.5	0.3	-	-	52.5	0	41.8	-	0	-	-	-
				LOS	F	A	-	-	D	A	D	-	A	-	-	-
IH 41 SB ramps & WIS 15 (Northland Ave)	Existing	Signalized	AM	Lane Configurations	1	2	0	0	2	1	0	0	0	1	0	1
				Volume (vph)	160	1080	-	-	570	350	-	-	-	190	-	670
				Total Delay	7.5	6.7	-	-	12.2	0	-	-	-	21.1	-	0
				LOS	A	A	-	-	B	A	-	-	-	C	-	A
			PM	Volume (vph)	180	1480	-	-	1020	440	-	-	-	160	-	740
				Total Delay	12	1.1	-	-	24.1	0	-	-	-	43.3	-	0
				LOS	B	A	-	-	C	A	-	-	-	D	-	A
IH 41 NB ramps & WIS 96 (Wisconsin Ave)	Existing	Signalized	AM	Lane Configurations	1	2	0	0	3	1	1	<1	1	0	0	0
				Volume (vph)	160	600	-	-	710	70	250	-	380	-	-	-
				Total Delay	5.8	3	-	-	23.3	20.3	42.8	-	0	-	-	-
				LOS	A	A	-	-	C	C	D	-	A	-	-	-
			PM	Volume (vph)	680	1010	-	-	1730	300	380	-	480	-	-	-
				Total Delay	44.8	17.8	-	-	42.2	28.4	41.8	-	0	-	-	-
				LOS	D	B	-	-	D	C	D	-	A	-	-	-
IH 41 SB ramps & WIS 96 (Wisconsin Ave)	Existing	Signalized	AM	Lane Configurations	0	3	1	1	2	0	0	0	0	0	<1	1
				Volume (vph)	-	610	180	350	610	-	-	-	-	150	-	270
				Total Delay	-	30.1	0	5.9	0.3	-	-	-	-	35	-	84.9
				LOS	-	C	A	A	A	-	-	-	-	D	-	F
			PM	Volume (vph)	-	1480	360	560	1550	-	-	-	-	210	-	460
				Total Delay	-	54.6	0	23.3	8.2	-	-	-	-	36	-	207.7
				LOS	-	D	A	C	A	-	-	-	-	D	-	F
IH 41 NB ramps & WIS 125 (College Ave)	Existing	Signalized	AM	Lane Configurations	1	2	0	0	3	1	1	<1	2	0	0	0
				Volume (vph)	160	550	-	-	640	110	290	-	430	-	-	-
				Total Delay	8.2	6.5	-	-	23.8	0	33.3	-	0	-	-	-
				LOS	A	A	-	-	C	A	C	-	A	-	-	-
			PM	Volume (vph)	500	970	-	-	1350	270	490	-	490	-	-	-
				Total Delay	32.1	9.8	-	-	48.6	0	31	-	0	-	-	-
				LOS	C	A	-	-	D	A	C	-	A	-	-	-
IH 41 SB ramps & WIS 125 (College Ave)	Existing	Signalized	AM	Lane Configurations	0	3	1	1	2	0	0	0	0	1	<1	2
				Volume (vph)	-	520	160	290	640	-	-	-	-	190	-	310
				Total Delay	-	27.2	0	42.1	4.9	-	-	-	-	36.3	-	0
				LOS	-	C	A	D	A	-	-	-	-	D	-	A
			PM	Volume (vph)	-	1300	590	440	1400	-	-	-	-	170	-	190
				Total Delay	-	32.5	0	14.2	0.1	-	-	-	-	35.5	-	0
				LOS	-	C	A	B	A	-	-	-	-	D	-	A
IH 41 NB off ramp & CTH BB (Prospect Ave)	Existing	Signalized	AM	Lane Configurations	0	1	0	0	1	0	1	0	1	0	0	0
				Volume (vph)	-	250	-	-	490	-	210	-	440	-	-	-
				Total Delay	-	5.7	-	-	7.4	-	13.4	-	0	-	-	-
				LOS	-	A	-	-	A	-	B	-	A	-	-	-
			PM	Volume (vph)	-	360	-	-	630	-	200	-	400	-	-	-
				Total Delay	-	6.1	-	-	8.8	-	14.1	-	0	-	-	-
				LOS	-	A	-	-	A	-	B	-	A	-	-	-
IH 41 NB on ramp & CTH BB (Prospect Ave)	Existing	Signalized	AM	Lane Configurations	1	1	0	0	1	1	0	0	0	0	0	0
				Volume (vph)	340	250	-	-	630	70	-	-	-	-	-	-
				Total Delay	12.2	0.3	-	-	7	3.4	-	-	-	-	-	-
				LOS	B	A	-	-	A	A	-	-	-	-	-	-
			PM	Volume (vph)	500	360	-	-	690	140	-	-	-	-	-	-
				Total Delay	12.3	0.3	-	-	8.3	4.6	-	-	-	-	-	-
				LOS	B	A	-	-	A	A	-	-	-	-	-	-
IH 41 SB off ramps & CTH BB (Prospect Ave)	Existing	Signalized	AM	Lane Configurations	0	1	1	1	1	0	0	0	0	0	<1	1
				Volume (vph)	-	490	200	150	480	-	-	-	-	100	-	370
				Total Delay	-	39.6	20.3	40.4	15.1	-	-	-	-	19	-	33.7
				LOS	-	D	C	D	B	-	-	-	-	B	-	C
			PM	Volume (vph)	-	730	390	310	380	-	-	-	-	130	-	250
				Total Delay	-	80.7	20.7	86.5	6.8	-	-	-	-	24.2	-	29.5
				LOS	-	F	C	F	A	-	-	-	-	C	-	C