



County Highway 50
Kenwood Trail
Corridor Study

Appendix E

Detailed VISSIM Results



County Highway 50

Kenwood Trail
Corridor Study

Table 1: VISSIM Throughput Results

Intersection	Existing Demand	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Future Demand	Alt. 6
		Existing	With Improved Signal at CH 60	With Roundabout at CH 60	With Roundabout at CH 60 & Signal at 192 nd Street	4-Lane Roadway & Roundabout at CH 60		Future
AM Peak Hour								
CSAH 50 & CSAH 60	2,065	2,064 (100%)	2,051 (100%)	2,061 (100%)	2,063 (100%)	2,052 (99%)	3815	3,774 (99%)
CSAH 50 & 188 th Street ¹	45	42 (94%)	42 (94%)	42 (94%)	42 (94%)	42 (94%)	35	33 (94%)
CSAH 50 & 192 nd Street/KTMS North Driveway ¹	140/140/140/ 1,375/140	134 (96%)	135 (96%)	135 (96%)	1,354 (98%)	135 (96%)	2110	2,092 (99%)
CSAH 50 & KTMS South Driveway ¹	85	82 (97%)	82 (97%)	82 (97%)	82 (97%)	82 (97%)	40	38 (96%)
CSAH 50 & Jaguar Avenue ¹	120	117 (97%)	117 (97%)	116 (97%)	117 (97%)	116 (97%)	75	75 (100%)
CSAH 50 & Ipava Avenue	1,270	1,252 (99%)	1,266 (100%)	1,253 (99%)	1,250 (98%)	1,246 (98%)	1915	1,884 (98%)
CSAH 50 & CSAH 9	1,385	1,360 (98%)	1,368 (99%)	1,359 (98%)	1,361 (98%)	1,360 (98%)	2390	2,349 (98%)
PM Peak Hour								
CSAH 50 & CSAH 60	2,705	2,686 (99%)	2,701 (100%)	2,698 (100%)	2,690 (99%)	2,687 (99%)	4,495	4,453 (99%)
CSAH 50 & 188 th Street ¹	20	21 (106%)	21 (106%)	21 (106%)	21 (106%)	21 (106%)	15	14 (94%)
CSAH 50 & 192 nd Street/KTMS North Driveway ¹	110/110/110/ 1,600/110	106 (96%)	106 (96%)	106 (96%)	1,583 (99%)	106 (96%)	2,155	2,157 (100%)
CSAH 50 & KTMS South Driveway ¹	40	40 (100%)	40 (100%)	41 (101%)	40 (100%)	41 (101%)	35	35 (100%)
CSAH 50 & Jaguar Avenue ¹	70	70 (100%)	70 (100%)	70 (100%)	70 (100%)	70 (100%)	50	47 (94%)
CSAH 50 & Ipava Avenue	1,700	1,694 (100%)	1,697 (100%)	1,694 (100%)	1,691 (99%)	1,689 (99%)	2,300	2,267 (99%)
CSAH 50 & CSAH 9	1,890	1,886 (100%)	1,889 (100%)	1,888 (100%)	1,890 (100%)	1,884 (100%)	3,300	3,295 (100%)

¹ Unsignalized intersection results shown for STOP controlled movements.



County Highway 50

Kenwood Trail
Corridor Study

Table 2: VISSIM Delay Results

Intersection	Traffic Control	Alt. 1		Alt. 2		Alt. 3		Alt. 4		Alt. 5		Alt. 6	
		LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
AM Peak Hour													
CSAH 50 & CSAH 60	Sig/Sig/Rnbt/Rnbt/Rnbt/Rnbt	D	36	C	23	B	11	B	11	A	10	C	19
CSAH 50 & 188 th Street ¹	Thru-STOP	C	16	C	15	C	16	C	17	B	13	B	10
CSAH 50 & 192 nd Street/KTMS North Dwy ¹	ThSP/ThSP/ThSP/Sig/ThSP/Sig	D	28	C	24	D	31	B	11	C	18	B	14
CSAH 50 & KTMS South Dwy ¹	Thru-STOP	C	15	B	14	B	15	C	16	B	12	A	8
CSAH 50 & Jaguar Avenue ¹	Thru-STOP	C	16	B	15	B	14	C	16	B	11	A	7
CSAH 50 & Ipava Avenue	Signalized	B	13	B	13	B	13	B	13	B	12	B	15
CSAH 50 & CSAH 9	Signalized	C	20	C	20	C	20	C	20	B	17	C	25
PM Peak Hour													
CSAH 50 & CSAH 60	Sig/Sig/Rnbt/Rnbt/Rnbt/Rnbt	E	58	C	30	D	26	D	27	D	27	E	36
CSAH 50 & 188 th Street ¹	Thru-STOP	D	29	B	13	C	22	C	24	C	17	B	10
CSAH 50 & 192 nd Street/KTMS North Driveway ¹	ThSP/ThSP/ThSP/Sig/ThSP/Sig	D	29	C	24	D	28	A	9	C	22	A	10
CSAH 50 & KTMS South Driveway ¹	Thru-STOP	C	21	C	20	C	18	C	18	B	14	A	9
CSAH 50 & Jaguar Avenue ¹	Thru-STOP	C	25	C	25	C	22	C	22	B	15	A	9
CSAH 50 & Ipava Avenue	Signalized	B	16	B	15	B	15	B	15	B	13	B	14
CSAH 50 & CSAH 9	Signalized	C	29	C	30	C	29	C	30	C	24	D	41

¹ Unsignalized Intersection results reported for stopped approaches.



County Highway 50

Kenwood Trail
Corridor Study

Table 3: VISSIM Travel Time Results

Location ¹	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
	Existing	With Improved Signal at CH 60	With Roundabout at CH 60	With Roundabout at CH 60 & Signal at 192 nd Street	4-Lane Roadway & Roundabout at CH 60	Future
AM Peak Hour						
CSAH 50 SB (Jaguar Path to CSAH 9)	4.0	3.8	3.7	3.7	3.5	4.0
CSAH 50 NB (Ibera Avenue to CSAH 60)	4.0	3.8	3.7	3.9	3.6	4.4
PM Peak Hour						
CSAH 50 SB (Jaguar Path to CSAH 9)	4.7	4.1	4.0	4.1	3.8	5.2
CSAH 50 NB (Ibera Avenue to CSAH 60)	4.3	4.0	3.9	4.1	3.7	4.6

Table 4: VISSIM Gap Results

Intersection	Field Study	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6
		Existing	With Improved Signal at CH 60	With Roundabout at CH 60	With Roundabout at CH 60 & Signal at 192 nd Street	4-Lane Roadway & Roundabout at CH 60	Future
AM Peak Hour							
CSAH 50 & 188 th Street	60	83	86	73	85	118	53
	171	174	181	140	199	262	102
CSAH 50 & 192 nd Street/KTMS North Driveway	52	93	98	92	Signal	98	Signal
	125	225	242	199		215	
CSAH 50 & Jaguar Avenue	110	115	116	117	116	152	114
	323	320	311	303	324	418	334
PM Peak Hour							
CSAH 50 & 188 th Street	54	59	70	44	50	72	36
	120	147	161	78	99	134	63
CSAH 50 & 192 nd Street/KTMS North Driveway	62	67	71	59	Signal	62	Signal
	167	162	173	107		114	
CSAH 50 & Jaguar Avenue	65	75	71	68	77	92	89
	189	192	177	135	199	187	254

¹ Gaps recorded for the two southbound lanes, the northbound left-turn lane and the inside northbound lane.