SUMMARY OF TRAFFIC SURVEY

YEAR: 2022
INTERSECTION: Chicago Ave & Kolin Ave
MUNICIPALITY: CDOT
COUNTY: Cook

2020-2022 Growth Factor 1.01

ROUTE		TRAFFIC FROM EAST (WB) Chicago Ave ☐ SRA				TRAFFIC FROM WEST (EB) Chicago Ave ☐ SRA					TRAFFIC FROM SOUTH (NB) Kolin Ave ☐ SRA				TRAFFIC FROM NORTH (SB) Kolin Ave ☐ SRA					
		E. OF: Kolin Ave GOING				W. OF: Kolin Ave GOING					S. OF: Chicago Ave GOING				N. OF: Chicago Ave GOING					
	START HOUR	SOUTH	WEST	NORTH	TOTAL	NORTH	EAST	SOUTH	TOTAL	TOTAL EAST AND WEST	WEST	NORTH	EAST	TOTAL	EAST	SOUTH	WEST	TOTAL	TOTAL NORTH AND SOUTH	GRAND TOTAL
1	5:00	0	176	0	176	0	221	28	249	425	27	0	3	30	3	0	4	7	37	463
2	6:00	4	564	0	568	0	486	49	535	1103	52	0	7	59	11	0	4	15	74	1177
3	7:00	3	507	0	510	0	981	59	1039	1549	72	0	7	79	7	0	10	17	96	1645
4	8:00	1	521	0	522	0	897	38	935	1457	34	0	4	38	9	0	11	20	59	1516
5	9:00	3	426	0	429	0	560	27	587	1016	25	0	7	32	5	0	10	15	47	1064
6	10:00	1	417	0	418	0	447	26	474	892	29	0	1	30	6	0	9	15	45	937
7	11:00	4	456	0	460	0	430	26	457	916	23	0	5	28	3	0	5	8	36	952
8	12:00	3	525	0	528	0	468	22	490	1018	24	0	2	26	7	0	9	16	42	1061
9	13:00	3	530	0	533	0	501	33	534	1068	48	0	1	49	8	0	11	19	69	1136
10	14:00	4	642	0	646	0	529	34	564	1210	64	0	6	70	7	0	11	18	88	1298
11	15:00	5	881	0	886	0	775	30	805	1691	88	0	19	107	6	0	11	17	124	1815
12	16:00	2	1007	0	1009	0	750	31	782	1791	60	0	15	75	14	0	19	33	108	1899
13	17:00	1	1078	0	1079	0	632	37	670	1748	58	0	2	60	3	0	9	12	72	1820
14	18:00	1	776	0	777	0	540	33	574	1350	30	0	1	31	1	0	14	15	46	1397
			Major				Major					Minor				Minor				
											☐ Grade Crossing Approach				☐ Grade Crossing Approach					

REVIEW INFORMATION

COUNTS USED:
COUNT DATE(S): 3/3/2020
DATE REVIEWED:
REVIEWED BY

WARRANT 2 ANALYSIS, MUTCD, Section 4C.2, 2009

2022 Data Source: 2022 Projected Volumes

Chicago Ave & Kolin Ave

User Input:

Major Road VPH:	1549	1691	1791	1748
Minor road VPH:	79	107	75	60

Number of lanes, major approach: Chicago Ave 2 lane(s)

Number of lanes, minor approach: Kolin Ave 1 lane(s)

Plotted Values

Major Road VPH:	1549	1691	1791	1748
Minor road VPH:	79	107	75	60

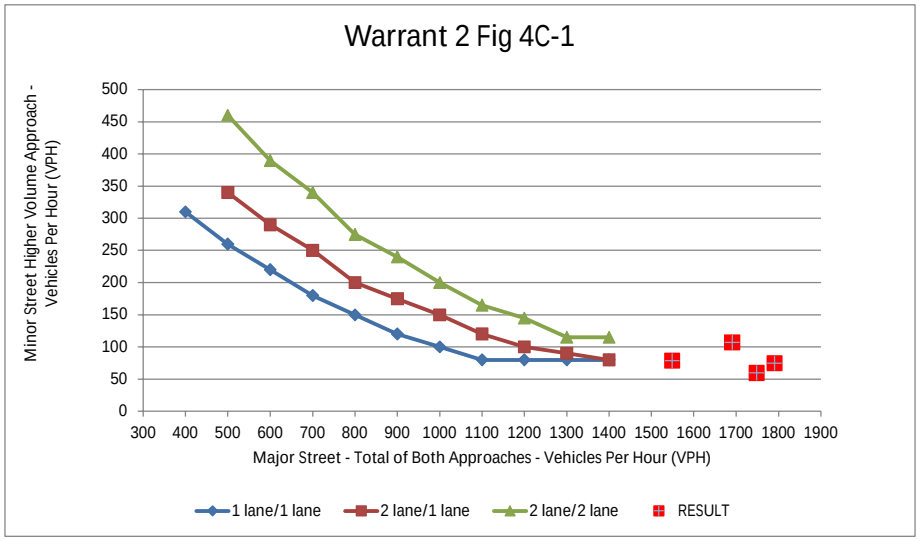
These values are plotted below and shown as the "Result" plotted points

If plotted point is above the controlling lane configuration line, 2 lane(s) major street/1 lane(s) minor street, for four or more hours during the day, then Traffic Signal Warrant is satisfied.

Engineering Judgement is still a key part in this decision, see MUTCD Section 4C.03, 2009.

Warrant Satisfied? N (Y or N) N/A

☐ SRA



Data for Figure 4C-1

DO NOT DELETE OR ALTER			
	No. of Lane (Major/Minor)		
Major	1 lane/1 lane	2 ln/1 ln	2 ln/2 ln
1400	80	80	115
1300	80	90	115
1200	80	100	145
1100	80	120	165
1000	100	150	200
900	120	175	240
800	150	200	275
700	180	250	340
600	220	290	390
500	260	340	460
400	310	390	N/A

WARRANT 3 ANALYSIS, MUTCD, Section 4C.3, 2009

2022 Data Source: 2022 Projected Volum

Chicago Ave & Kolin Ave

User Input:

Major Road ADT:		(Road w/out the RR Crossing, Average Daily Traffic, total of each direction)
Minor Road ADT:		(Road with the RR crossing, approach to short storage ONLY)
Major Road VPH:		(If know, override existing #, else ADT x K factor (say .095, Highway Cap. Manual Exhibit 9-2, 2000) is used for Vehicles Per Hour)
Minor road VPH:		(If know, override existing #, else ADT x K factor (say .095) is used for Vehicles Per Hour)
Number of lanes, major approach:	2	lane(s)
Number of lanes, minor approach:	1	lane(s)

Plotted Values

Major Road VPH:	1549	1457	1691	1791	1748
Minor road VPH:	79	38	107	75	60

These values are plotted below and shown as the "Result" plotted point

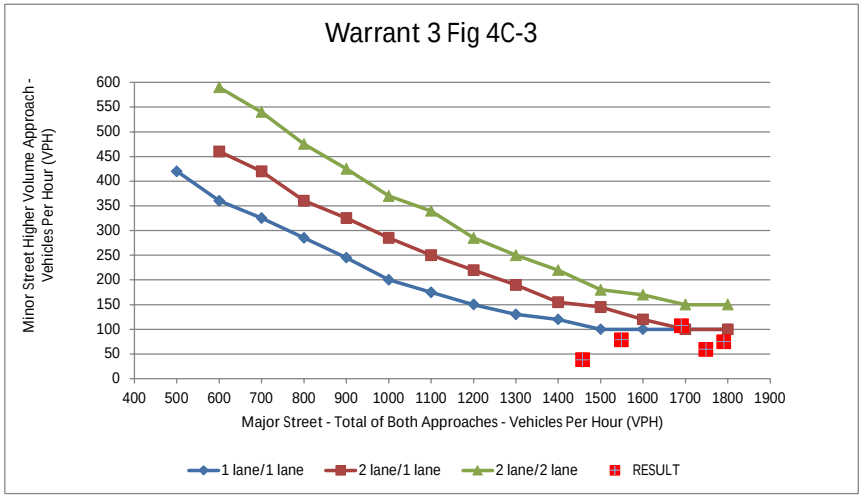
If plotted point is above the controlling lane configuration line, 2 lane(s) major street/1 lane(s) minor street,

then Traffic Signal Warrant is satisfied.

Engineering Judgement is still a key part in this decision, see MUTCD Section 4C.04, 2009.

Warrant Satisfied? Y (Y or N) N/A

☐ SRA



Data for Figure 4C-3

DO NOT DELETE OR ALTER			
	No. of Lane (Major/Minor)		
Major	1 lane/1 lane	2 ln/1 ln	2 ln/2 ln
1800	100	100	150
1700	100	100	150
1600	100	120	170
1500	100	145	180
1400	120	155	220
1300	130	190	250
1200	150	220	285
1100	175	250	340
1000	200	285	370
900	245	325	425
800	285	360	475
700	325	420	540
600	360	460	590
500	420	N/A	N/A

2022 SIGNAL WARRANT REVIEW SHEET

Chicago & Kolin

SRA: YES NO

INTERSECTION: Chicago Ave and Kolin Ave

COUNTY: Cook

MUNICIPALITY: CDOT, IL

Speed Limit on Major Route 30 MPH

Speed Limit on Minor Route 30 MPH

Number of Lanes on Major Approach 2

Number of Lanes on Minor Approach 1

HOUR BEGIN	MAJOR STREET VOLUME (Both Approaches)	ADJ. MINOR STREET VOLUME (Higher Vol Approach)	CHECK ANY HOURS WHICH MEET THE FOLLOWING WARRANTS: WARRANT 1 A 100% of A	WARRANT 1 B 100% of B	WARRANT 7: 8 hrs of one of the following WARRANT 1 A/B: 80% of A	80% of B	8 hrs of BOTH: 80% of Warr #4
5:00	425	30	NO	NO	NO	NO	
6:00	1103	58	NO	NO	NO	NO	
7:00	1549	79	NO	YES	NO	YES	
8:00	1457	38	NO	NO	NO	NO	
9:00	1016	31	NO	NO	NO	NO	
10:00	892	30	NO	NO	NO	NO	
11:00	916	28	NO	NO	NO	NO	
12:00	1018	26	NO	NO	NO	NO	
13:00	1068	49	NO	NO	NO	NO	
14:00	1210	69	NO	NO	NO	YES	
15:00	1691	105	NO	YES	NO	YES	
16:00	1791	73	NO	NO	NO	YES	
17:00	1748	60	NO	NO	NO	NO	
18:00	1350	31	NO	NO	NO	NO	

*Note: Volume Requirements Reduced Due to Speed

Hours Met:		0	2	0	4	
Volume Requirements	MAJOR:	600	900	480	720	
	MINOR:	150	75	120	60	

REVIEW INFORMATION

COUNTS USED:

COUNT DATE(S):

DATE REVIEWED:

REVIEWED BY

Traffic Signal Approved:

COMMENTS

*MINOR STREET VOLUME REQUIREMENTS FOR CONDITION B INCREASED ALONG SRA ROUTE FROM 75 TO 100 FOR SINGLE LANE APPROACH AND FROM 100 TO 150 FOR A TWO OR MORE LANE APPROACH. CORRESPONDING 80% VOLUMES FOR WARRANT 7 ARE ALSO INCREASED ACCORDINGLY, FROM 60 TO 80 FOR SINGLE LANE MINOR APPROACH AND FROM 80 TO 120 FOR A TWO OR MORE LANE MINOR APPROACH ALONG AN SRA ROUTE.

WARRANT 1 Yes **No**

Warrant 1 is met if any of the following conditions are met:

* Condition A: 0 Yes **No**
MINIMUM VEHICULAR VOLUME

* Condition B: 2 Yes **No**
INTERRUPTION OF CONTINUOUS TRAFFIC

* Condition A/B: 0 Yes **No**
COMBINATION OF WARRANTS

WARRANT 2 Yes **No**
4-HOUR VEHICULAR VOLUME

WARRANT 3 **Yes** No
PEAK HOUR VOLUME

WARRANT 4 Yes **No**
PEDESTRIAN VOLUME

WARRANT 5 Yes **No**
SCHOOL CROSSING

WARRANT 6 Yes **No**
COORDINATED SIGNAL SYSTEM

WARRANT 7 Yes **No**
ACCIDENT EXPERIENCE

	08	09	10	11
TOTAL NO. CRASHES				
NO. CORRECTABLE CRASHES				

TRIED LESS RESTRICTIVE METHODS?

ARE VOLUME REQUIREMENTS MET?

WARRANT 8 Yes No
ROADWAY NETWORK

WARRANT 9 Yes **No**
Intersection Near a Grade Crossing

STOP OR YIELD CONTROLLED LEG WITH GRADE CROSSING

D (Clear Storage Distance) =

	#	%	Factor
RAIL TRAFFIC PER DAY =			
HIGH OCCUPANCY BUSSES PER HOUR =			
TRUCKS PER HOUR =			

OVERALL ADJUSTMENT FACTOR =

Appendix