

## **APPENDIX D**

### **Warrant Analysis Worksheets**



## SIGNAL WARRANT ANALYSIS

**Project Name:** Woodland TSIP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** SR 503 @ Goerig (west)  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	260 vph
Highest minor approach:	1000 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									NO
A - Minimum Vehicular Volume	350	105	400	120	260	1000	182	700	NO
B - Interruption of Continuous Traffic	525	53	600	60	260	1000	182	700	NO
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	260	1000	221	850	NO
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	260	1000	XXXXX	XXXXX	NO
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** Woodland TSIP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** SR 503 @ Goerig (west)  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	265 vph
Highest minor approach:	1025 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									NO
A - Minimum Vehicular Volume	350	105	400	120	265	1025	185.5	718	NO
B - Interruption of Continuous Traffic	525	53	600	60	265	1025	185.5	718	NO
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	265	1025	225.25	871	NO
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	265	1025	XXXXX	XXXXX	NO
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** SR 503 @ Goerig Street (east)  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	390 vph
Highest minor approach:	1185 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	NO
Warrant Factor	100%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									NO
A - Minimum Vehicular Volume	500	150	400	120	390	1185	273	830	NO
B - Interruption of Continuous Traffic	750	75	600	60	390	1185	273	830	NO
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	390	1185	331.5	1007	NO
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	390	1185	XXXXX	XXXXX	NO
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** SR 503 @ Goerig Street (east)  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	415 vph
Highest minor approach:	1215 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	NO
Warrant Factor	100%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									NO
A - Minimum Vehicular Volume	500	150	400	120	415	1215	290.5	851	NO
B - Interruption of Continuous Traffic	750	75	600	60	415	1215	290.5	851	NO
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	415	1215	352.75	1033	NO
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	CHECK MUTCD	XXXXX	XXXXX	415	1215	XXXXX	XXXXX	NO
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** SR 503@E Scott Avenue  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1540 vph
Highest minor approach:	370 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1540	370	1078	259	YES
B - Interruption of Continuous Traffic	525	53	600	60	1540	370	1078	259	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	xxxxx	60	xxxxx	xxxxx	1540	370	1309	315	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	xxxxx	75	xxxxx	xxxxx	1540	370	xxxxx	xxxxx	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** SR 503@E Scott Avenue  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1580 vph
Highest minor approach:	360 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1580	360	1106	252	YES
B - Interruption of Continuous Traffic	525	53	600	60	1580	360	1106	252	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1580	360	1343	306	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1580	360	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Dike Access@I-5 SB  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1140 vph
Highest minor approach:	335 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									
A - Minimum Vehicular Volume	350	105	400	120	1140	335	798	235	YES
B - Interruption of Continuous Traffic	525	53	600	60	1140	335	798	235	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1140	335	969	285	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1140	335	XXXXX	XXXXX	YES

\* SHALL ONLY BE APPLIED IN UNUSUAL CASES

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Dike Access@I-5 SB  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1135 vph
Highest minor approach:	325 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1135	325	794.5	228	YES
B - Interruption of Continuous Traffic	525	53	600	60	1135	325	794.5	228	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1135	325	964.75	276	YES
WARRANT 3 (b) - PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1135	325	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Dike Access@I-5 NB  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1055 vph
Highest minor approach:	270 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1055	270	738.5	189	YES
B - Interruption of Continuous Traffic	525	53	600	60	1055	270	738.5	189	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1055	270	896.75	230	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1055	270	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Dike Access@I-5 NB  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1045 vph
Highest minor approach:	275 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1045	275	731.5	193	YES
B - Interruption of Continuous Traffic	525	53	600	60	1045	275	731.5	193	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1045	275	888.25	234	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1045	275	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** Green Mtn @ Pacific Hwy  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	975 vph
Highest minor approach:	255 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	975	255	682.5	179	YES
B - Interruption of Continuous Traffic	525	53	600	60	975	255	682.5	179	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	975	255	828.75	217	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	81	XXXXX	XXXXX	975	255	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** Green Mtn@Pacific Hwy  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	960 vph
Highest minor approach:	260 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	960	260	672	182	YES
B - Interruption of Continuous Traffic	525	53	600	60	960	260	672	182	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	960	260	816	221	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	83	XXXXX	XXXXX	960	260	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** E Scott@Pacific Hwy  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1120 vph
Highest minor approach:	220 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1120	220	784	154	YES
B - Interruption of Continuous Traffic	525	53	600	60	1120	220	784	154	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1120	220	952	187	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1120	220	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** E Scott@Pacific Hwy  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1120 vph
Highest minor approach:	220 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	YES
Warrant Factor	70%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	350	105	400	120	1120	220	784	154	YES
B - Interruption of Continuous Traffic	525	53	600	60	1120	220	784	154	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	60	XXXXX	XXXXX	1120	220	952	187	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	75	XXXXX	XXXXX	1120	220	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** OCT

**Intersection:** Davidson @5th  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	500 vph
Highest minor approach:	175 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	NO
Warrant Factor	100%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									NO
A - Minimum Vehicular Volume	500	150	400	120	500	175	350	123	NO
B - Interruption of Continuous Traffic	750	75	600	60	500	175	350	123	NO
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	296	XXXXX	XXXXX	500	175	425	149	NO
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	416	XXXXX	XXXXX	500	175	XXXXX	XXXXX	NO
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Davidson @5th  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	775 vph
Highest minor approach:	280 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	NO
Warrant Factor	100%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	500	150	400	120	775	280	542.5	196	YES
B - Interruption of Continuous Traffic	750	75	600	60	775	280	542.5	196	NO
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	194	XXXXX	XXXXX	775	280	658.75	238	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	286	XXXXX	XXXXX	775	280	XXXXX	XXXXX	NO
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Goerig St@Buckeye  
**Conditions (yr, alt., etc.):** 2025 Comp Plan

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1345 vph
Highest minor approach:	135 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	NO
Warrant Factor	100%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	500	150	400	120	1345	135	941.5	95	NO
B - Interruption of Continuous Traffic	750	75	600	60	1345	135	941.5	95	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	80	XXXXX	XXXXX	1345	135	1143.25	115	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	118	XXXXX	XXXXX	1345	135	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									

## SIGNAL WARRANT ANALYSIS

**Project Name:** WTISP  
**Analyst:** SAO  
**Date:** 5-Oct-07

**Intersection:** Goerig St@Buckeye  
**Conditions (yr, alt., etc.):** 2025 Comp Plan Plus

**GENERAL INPUT PARAMETERS:**

Number of lanes for moving traffic:	
Major approach:	1 lanes
Minor approach:	1 lanes
Peak Hour Approach Volumes*:	
Sum of major approaches:	1635 vph
Highest minor approach:	130 vph
Factor Peak Hour --> 8th Highest Hour	
Major approach:	70% (60-80% acceptable)
Minor approach:	70% (60-80% acceptable)
Factor Peak Hour --> 4th Highest Hour	
Major approach:	85%
Minor approach:	85%
Is the population < 10,000 or speed => 40	NO
Warrant Factor	100%

	INDIVIDUAL REQUIRED		80% COMBINED REQUIRED		ACTUAL VOLUMES		4TH & 8TH HIGHEST HOUR EST.		WARRANT MET ?
	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	MAJOR VOLUME BOTH APP	MINOR VOLUME HIGH APP	
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME									YES
A - Minimum Vehicular Volume	500	150	400	120	1635	130	1144.5	91	NO
B - Interruption of Continuous Traffic	750	75	600	60	1635	130	1144.5	91	YES
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME	XXXXX	80	XXXXX	XXXXX	1635	130	1389.75	111	YES
WARRANT 3 (b)- PEAK HOUR VOLUME	XXXXX	100	XXXXX	XXXXX	1635	130	XXXXX	XXXXX	YES
* SHALL ONLY BE APPLIED IN UNUSUAL CASES									