

Elm Avenue/Kains Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Kains Avenue  
 Minor Street: Elm Avenue

Critical Approach Speed\* (mph) 25  
 Critical Approach Speed\* (mph) 25  
 \*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....  }  
 **Urban (U)**

**AM PEAK PERIOD**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD							
	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	8.3	8.3	8.4	8.4				
Corresponding Minor Street Approach Volume (veh/hr)	107	107	107	107				
Minor Street Total Delay (veh-hrs)	0.2	0.2	0.2	0.2				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	Yes	Yes	Yes	Yes				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

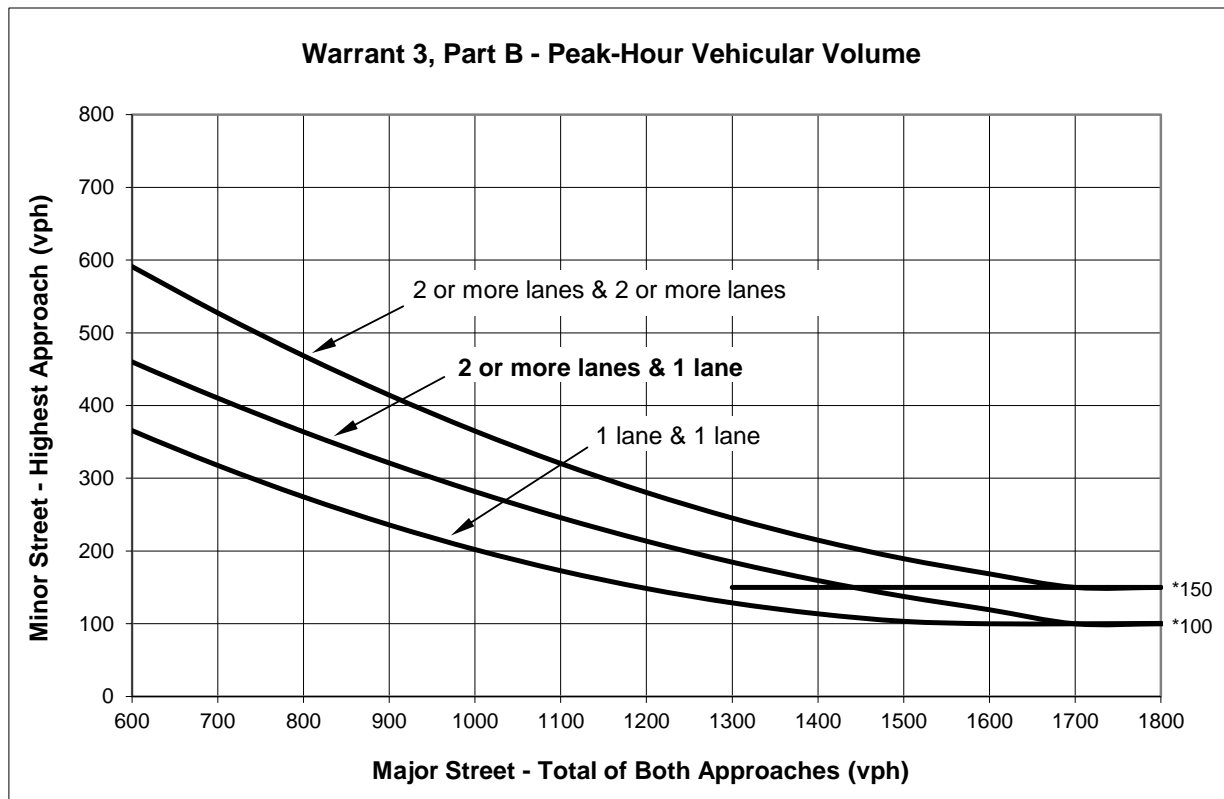
**PART B**

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Kains Avenue	X		193	197	222	226				
Minor Street - Highest Approach	Elm Avenue	X		107	107	107	107				
<b>Signal Warranted based on Part B?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways 2014 Edition (FHWA's MUTCD 2009 Edition, including Revisions 1 & 2, as amended for use in California).

Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		AM PEAK PERIOD							
				Existing	Background	Existing + Proj	Background + Proj				
		2 or One	More								
Major Street - Both Approaches	Kains Avenue	X		193	197	222	226				
Minor Street - Highest Approach	Elm Avenue	X		107	107	107	107				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Elm Avenue/Kains Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Kains Avenue

Critical Approach Speed\* (mph) 25

Minor Street: Elm Avenue

Critical Approach Speed\* (mph) 25

\*Posted Speed.

- Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....   
 **Urban (U)**

**PM PEAK HOUR**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

PM PEAK HOUR

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	8.0	8.0	8.1	8.1				
Corresponding Minor Street Approach Volume (veh/hr)	76	76	76	76				
Minor Street Total Delay (veh-hrs)	0.2	0.2	0.2	0.2				

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	Yes	Yes	Yes	Yes				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

**PART B**

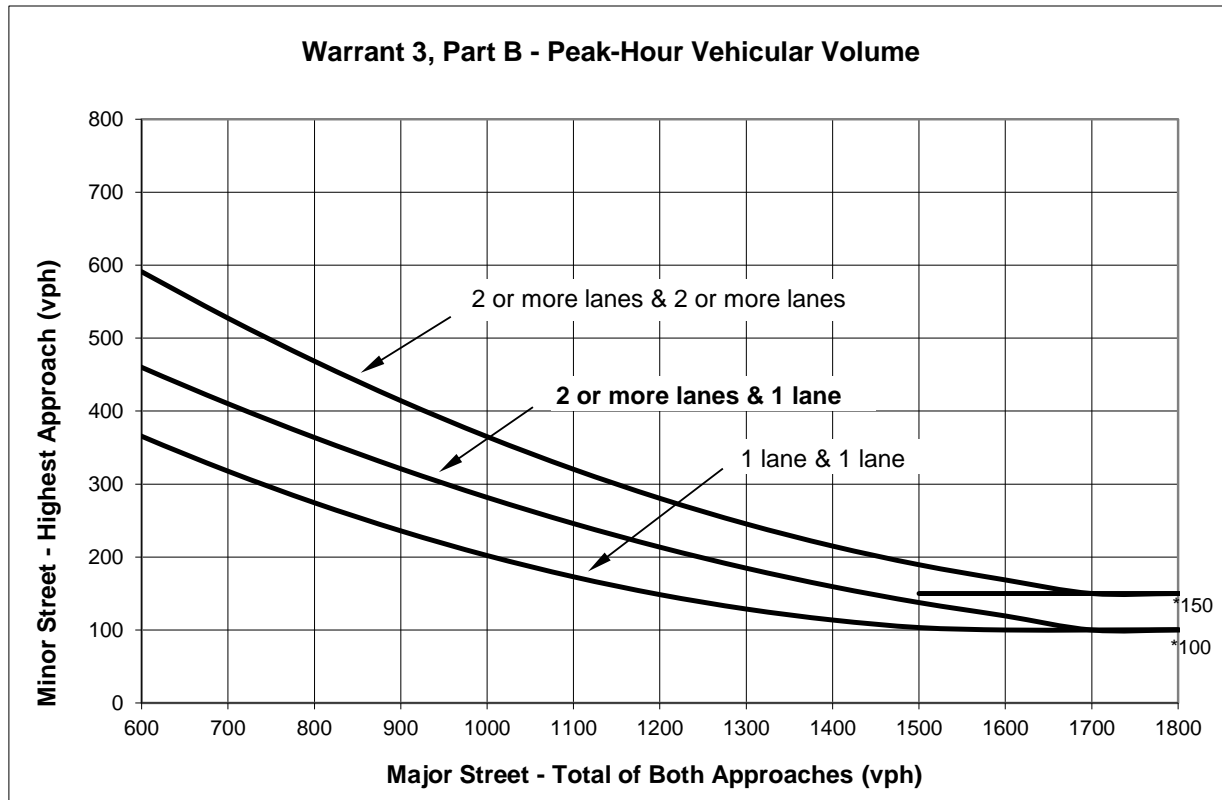
PM PEAK HOUR

	Approach Lanes	2 or More		Existing	Background	Existing + Proj	Background + Proj				
		One	More								
Major Street - Both Approaches	Kains Avenue	X		186	188	207	209				
Minor Street - Highest Approach	Elm Avenue	X		80	80	83	83				
<b>Signal Warranted based on Part B?</b>		<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

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Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		PM PEAK HOUR									
		Approach Lanes		Existing	Background	Existing + Proj	Background + Proj				
		2 or One	More								
Major Street - Both Approaches	Kains Avenue	X		186	188	207	209				
Minor Street - Highest Approach	Elm Avenue	X		80	80	83	83				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Linden Avenue/Angus Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Angus Avenue  
 Minor Street: Linden Avenue

Critical Approach Speed\* (mph) 25  
 Critical Approach Speed\* (mph) 25  
 \*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 In built up area of isolated community of < 10,000 population.....  } **Rural (R)**  
 **Urban (U)**

**AM PEAK PERIOD**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD							
	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	7.7	7.7	7.7	7.7				
Corresponding Minor Street Approach Volume (veh/hr)	62	62	62	62				
Minor Street Total Delay (veh-hrs)	0.1	0.1	0.1	0.1				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	No	No	No				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

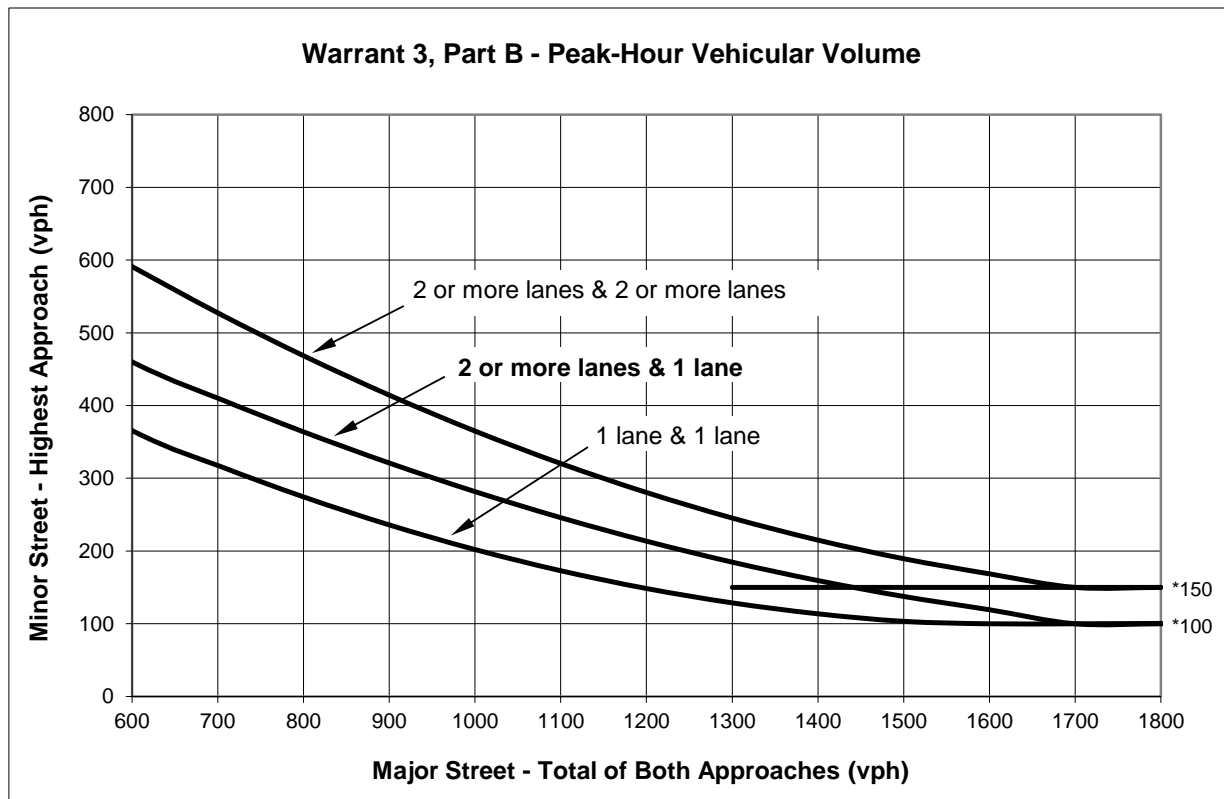
**PART B**

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Angus Avenue	X		207	207	208	208				
Minor Street - Highest Approach	Linden Avenue	X		62	62	62	62				
<b>Signal Warranted based on Part B?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

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Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		AM PEAK PERIOD							
				Existing	Background	Existing + Proj	Background + Proj				
		2 or One	More								
Major Street - Both Approaches	Angus Avenue	X		207	207	208	208				
Minor Street - Highest Approach	Linden Avenue	X		62	62	62	62				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Linden Avenue/Angus Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Angus Avenue

Critical Approach Speed\* (mph) 25

Minor Street: Linden Avenue

Critical Approach Speed\* (mph) 25

\*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....  }  
 **Urban (U)**

**PM PEAK HOUR**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

PM PEAK HOUR

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	7.4	7.4	7.4	7.4				
Corresponding Minor Street Approach Volume (veh/hr)	55	55	55	55				
Minor Street Total Delay (veh-hrs)	0.1	0.1	0.1	0.1				

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	No	No	No				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

**PART B**

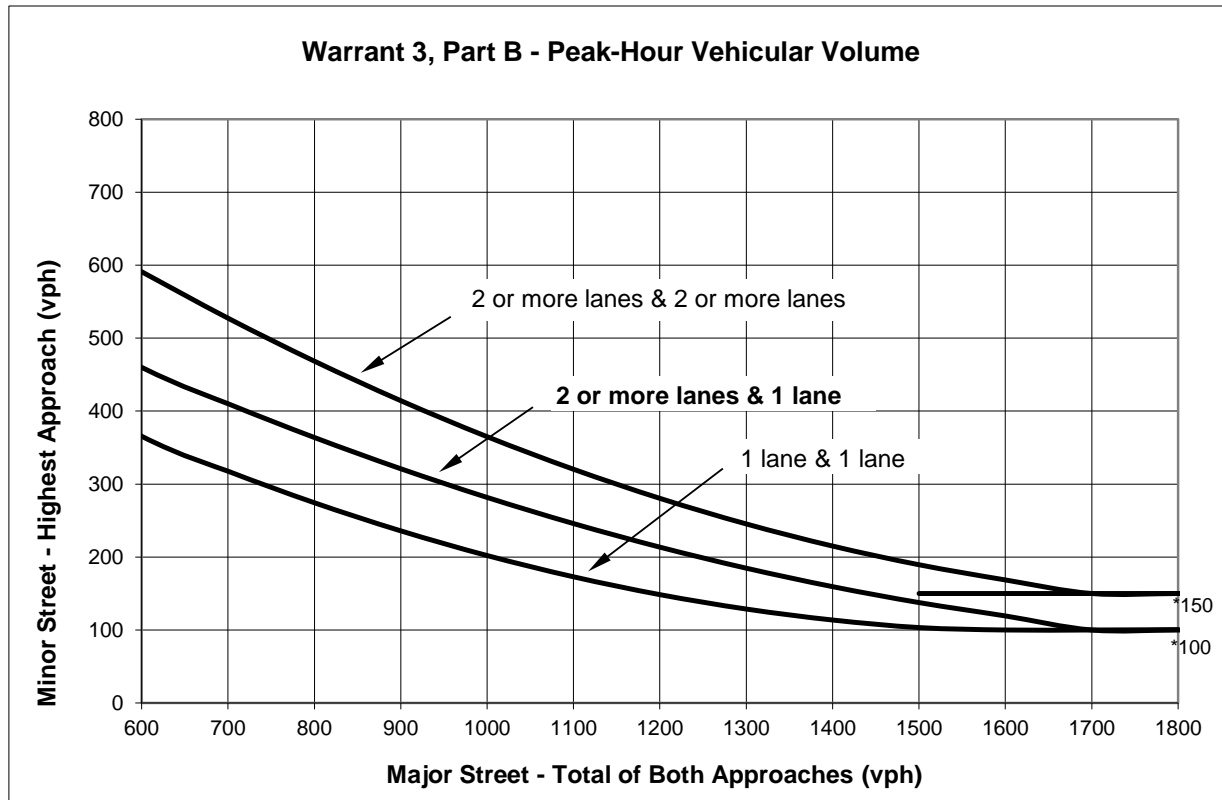
PM PEAK HOUR

		Approach Lanes		Existing	Background	Existing + Proj	Background + Proj				
		One	2 or More								
Major Street - Both Approaches	Angus Avenue	X		78	78	79	79				
Minor Street - Highest Approach	Linden Avenue	X		55	55	55	55				
<b>Signal Warranted based on Part B?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

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Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		PM PEAK HOUR							
		2 or	One More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Angus Avenue	X		78	78	79	79				
Minor Street - Highest Approach	Linden Avenue	X		55	55	55	55				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.



Linden Avenue/Kains Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Kains Avenue  
 Minor Street: Linden Avenue

Critical Approach Speed\* (mph) 25  
 Critical Approach Speed\* (mph) 25  
 \*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....  }  
 **Urban (U)**

**AM PEAK PERIOD**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD							
	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	SB	SB	SB	SB				
Highest Minor Street Average Delay (sec/veh)	9.9	10.0	10.1	10.2				
Corresponding Minor Street Approach Volume (veh/hr)	7	7	7	7				
Minor Street Total Delay (veh-hrs)	0.0	0.0	0.0	0.0				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	No	No	No				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

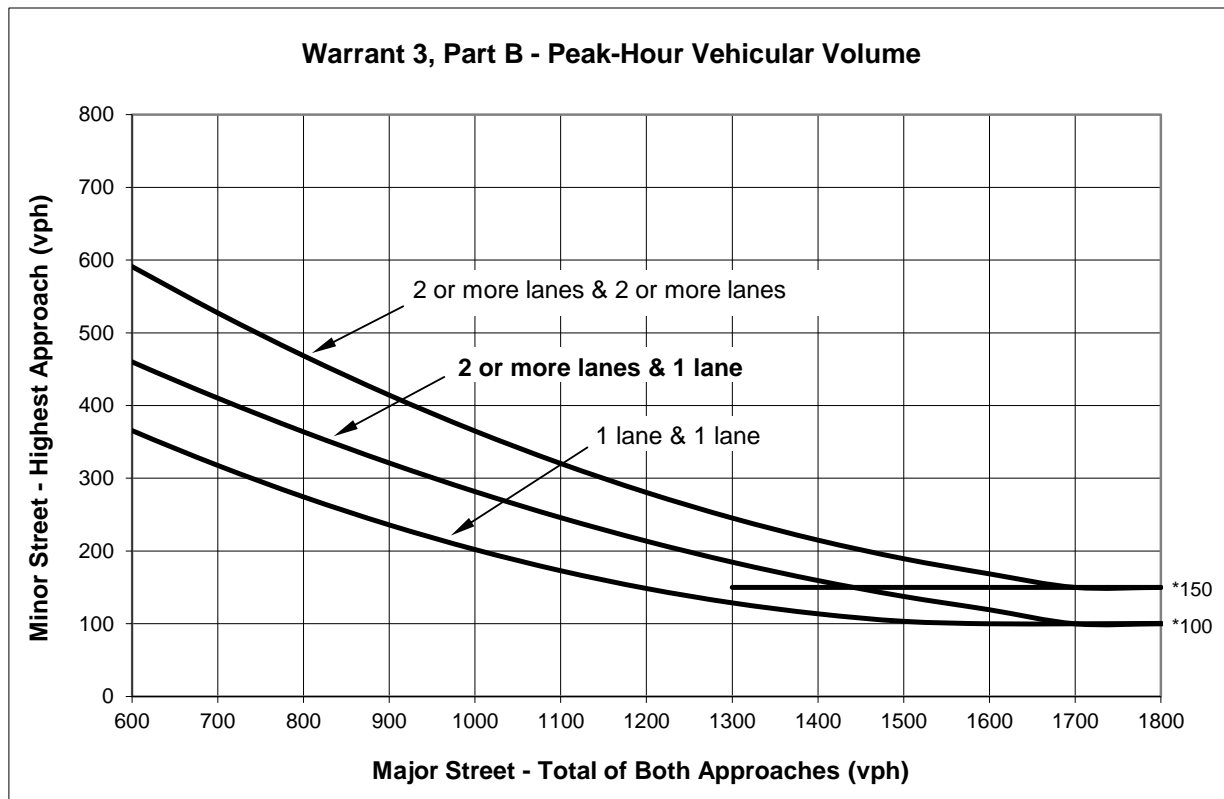
**PART B**

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Kains Avenue	X		151	155	180	184				
Minor Street - Highest Approach	Linden Avenue	X		67	67	68	68				
<b>Signal Warranted based on Part B?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

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Notes:



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\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		AM PEAK PERIOD							
				Existing	Background	Existing + Proj	Background + Proj				
		2 or One	More								
Major Street - Both Approaches	Kains Avenue	X		151	155	180	184				
Minor Street - Highest Approach	Linden Avenue	X		67	67	68	68				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

Linden Avenue/Kains Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Kains Avenue

Critical Approach Speed\* (mph) 25

Minor Street: Linden Avenue

Critical Approach Speed\* (mph) 25

\*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....   
 **Urban (U)**

**PM PEAK HOUR**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

PM PEAK HOUR

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	SB	SB	SB	SB				
Highest Minor Street Average Delay (sec/veh)	10.5	10.5	10.7	10.7				
Corresponding Minor Street Approach Volume (veh/hr)	11	11	11	11				
Minor Street Total Delay (veh-hrs)	0.0	0.0	0.0	0.0				

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	No	No	No				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

**PART B**

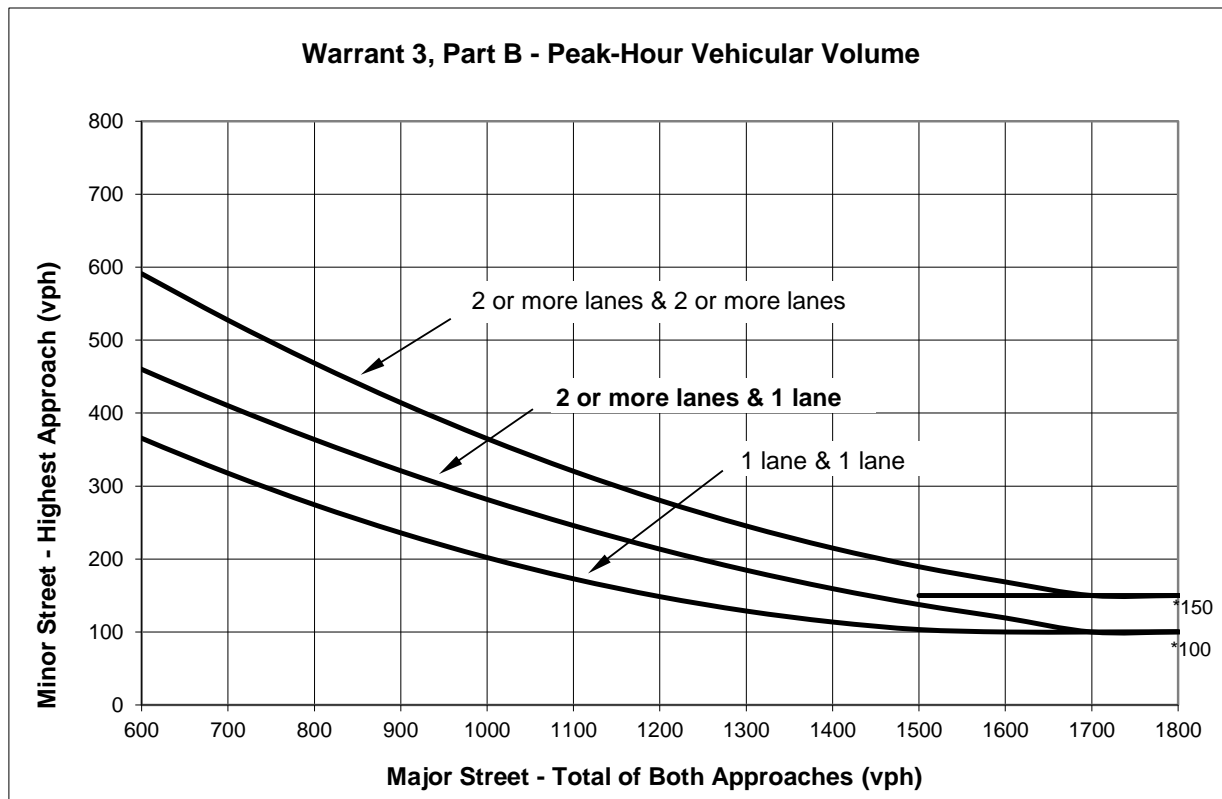
PM PEAK HOUR

	Approach Lanes	2 or More		Existing	Background	Existing + Proj	Background + Proj				
		One	More								
Major Street - Both Approaches	Kains Avenue	X		235	237	258	260				
Minor Street - Highest Approach	Linden Avenue	X		41	41	42	42				
<b>Signal Warranted based on Part B?</b>		<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

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\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		PM PEAK HOUR							
				Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Kains Avenue	X		235	237	258	260				
Minor Street - Highest Approach	Linden Avenue	X		41	41	42	42				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

White Way/Kains Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Kains Avenue  
 Minor Street: White Way

Critical Approach Speed\* (mph) 25  
 Critical Approach Speed\* (mph) 25  
 \*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....  }  
 **Urban (U)**

**AM PEAK PERIOD**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

	AM PEAK PERIOD							
	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	0.0	0.0	9.3	9.3				
Corresponding Minor Street Approach Volume (veh/hr)	0	0	32	32				
Minor Street Total Delay (veh-hrs)	0.0	0.0	0.1	0.1				
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	No	No	No				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

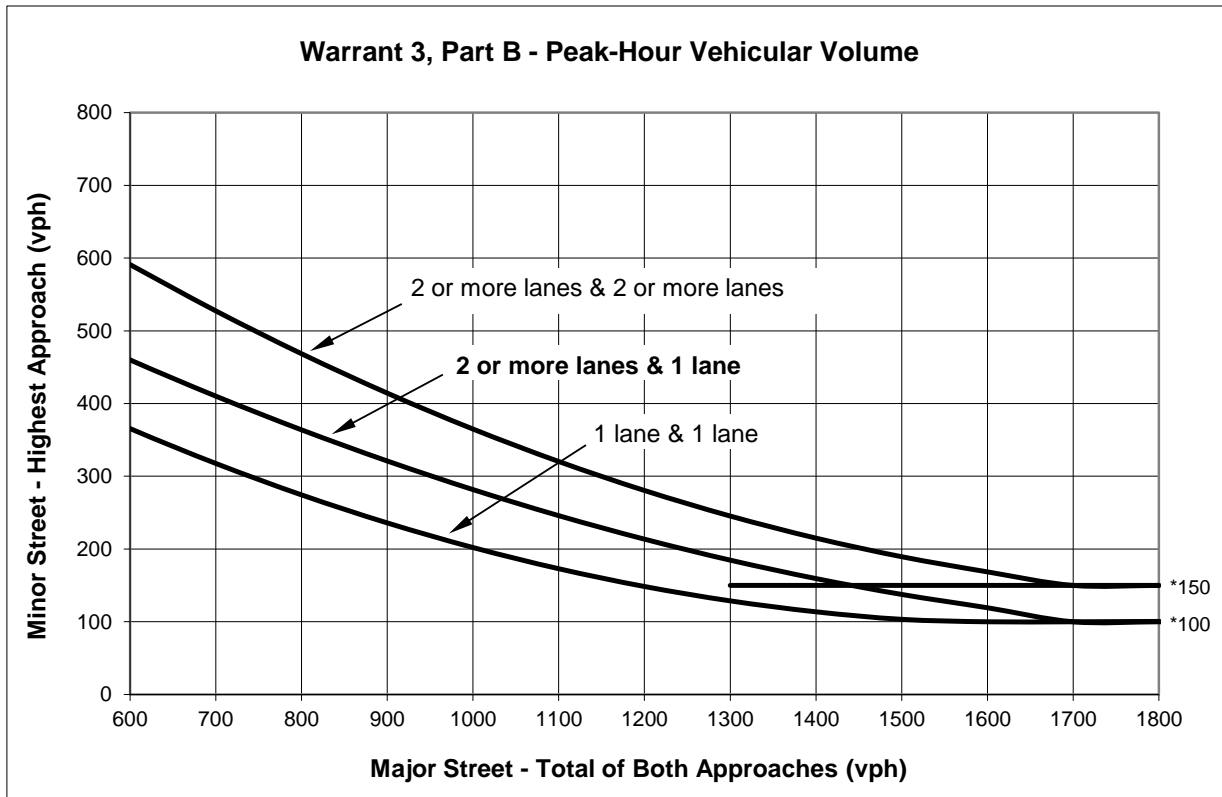
**PART B**

		Approach Lanes		AM PEAK PERIOD							
		One	2 or More	Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Kains Avenue	X		199	203	238	242				
Minor Street - Highest Approach	White Way	X		0	0	32	32				
<b>Signal Warranted based on Part B?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

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Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		AM PEAK PERIOD							
				Existing	Background	Existing + Proj	Background + Proj				
		2 or One	More								
Major Street - Both Approaches	Kains Avenue	X		199	203	238	242				
Minor Street - Highest Approach	White Way	X		0	0	32	32				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.

White Way/Kains Avenue

**TRAFFIC SIGNAL WARRANTS WORKSHEET**

Analyst: OZ date: 3/5/19

Major Street: Kains Avenue  
 Minor Street: White Way

Critical Approach Speed\* (mph) 25  
 Critical Approach Speed\* (mph) 25  
 \*Posted Speed.

Critical speed of major street traffic > 50 mph (64 km/h).....  }  
 or } **Rural (R)**  
 In built up area of isolated community of < 10,000 population.....   
 **Urban (U)**

**PM PEAK HOUR**

**Warrant 3 - Peak Hour**

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

PM PEAK HOUR

	Existing	Background	Existing + Proj	Background + Proj				
Minor Street Approach Direction w/ Highest Delay	NB	NB	NB	NB				
Highest Minor Street Average Delay (sec/veh)	8.8	8.8	9.2	9.2				
Corresponding Minor Street Approach Volume (veh/hr)	3	3	16	16				
Minor Street Total Delay (veh-hrs)	0.0	0.0	0.0	0.0				

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds 4 vehicle-hours for a 1-lane approach and 5 vehicle-hours for a 2-lane approach; <u>AND</u>	No	No	No	No				
2. The volume on the same minor street approach equals or exceeds 100 vph for 1 moving lane of traffic or 150 vph for 2 moving lanes; <u>AND</u>	No	No	No	No				
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with 4 or more approaches or 650 vph for intersections with 3 approaches.	No	No	No	No				
<b>Signal Warranted based on Part A?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

**PART B**

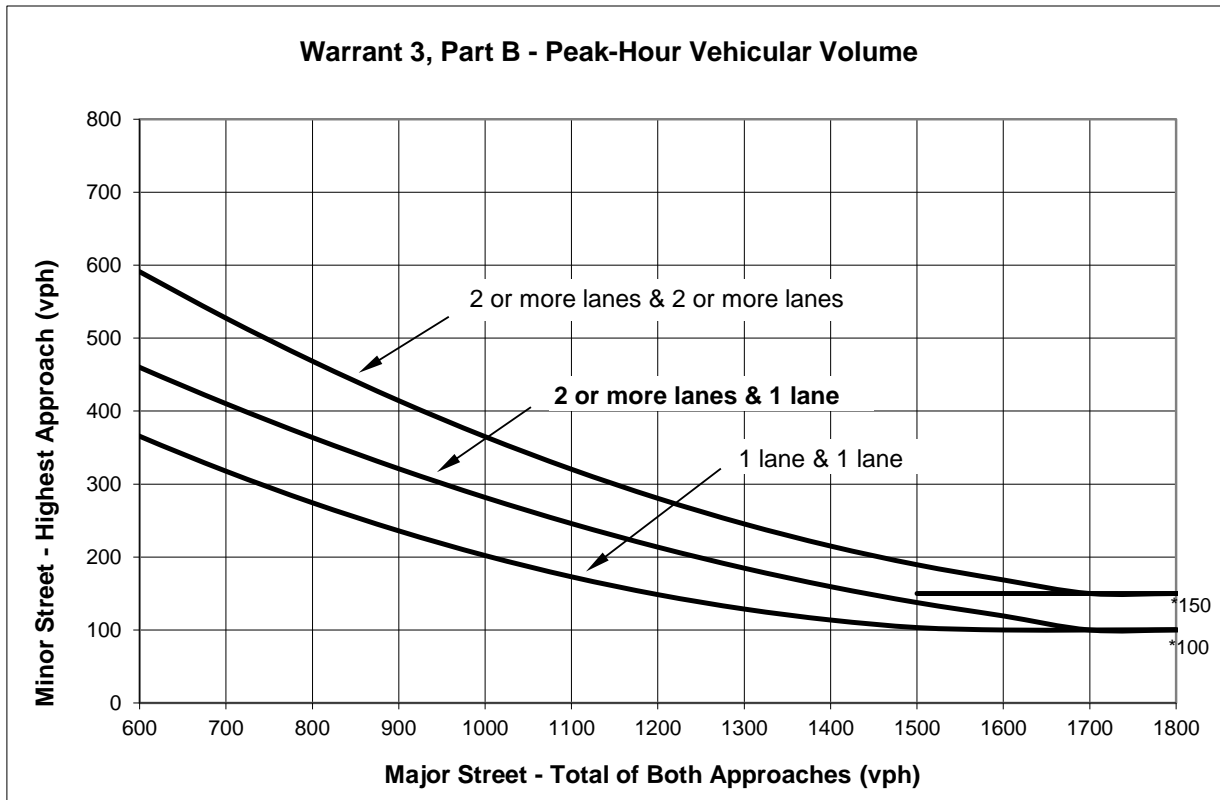
PM PEAK HOUR

		Approach Lanes		Existing	Background	Existing + Proj	Background + Proj				
		One	2 or More								
Major Street - Both Approaches	Kains Avenue	X		269	271	303	305				
Minor Street - Highest Approach	White Way	X		3	3	16	16				
<b>Signal Warranted based on Part B?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

The Warrant is satisfied if the plotted point for vehicles per hour on the major street (both approaches) and the corresponding per hour higher vehicle volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) fall above the applicable curves in California MUTCD Figure 4C-3 or 4C-4.

Source: California Manual on Uniform Traffic Control Devices for Streets and Highways 2014 Edition (FHWA's MUTCD 2009 Edition, including Revisions 1 & 2, as amended for use in California).

Notes:



Source: Figure 4C-3 California Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2010 Edition, as amended for use in California).

\* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Warrant 3, Part B - Peak-Hour Vehicular Volume**

		Approach Lanes		PM PEAK HOUR							
				Existing	Background	Existing + Proj	Background + Proj				
Major Street - Both Approaches	Kains Avenue	X		269	271	303	305				
Minor Street - Highest Approach	White Way	X		3	3	16	16				
<b>Signal Warranted Based on Part B - Peak-Hour Volumes?</b>				<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>				

\*Warrant is satisfied if plotted points fall above the appropriate curve in graph above.