

# Input Data Sheet

Analysis Sheet

Results Sheet

Proposed Collision

GO TO Justification:

What are the intersecting roadways?

Countryside Dr and Bellini Ave

What is the direction of the Main Road street?

East-West

When was the data collected?

2023/01/24

## Justification 1 - 4: Volume Warrants

a.- Number of lanes on the Main Road?

2 or more

b.- Number of lanes on the Minor Road?

1

c.- How many approaches?

4

d.- What is the operating environment?

Urban

Population > 10,000

AND

Speed < 70 km/hr

e.- What is the eight hour vehicle volume at the intersection? (Please fill in table below)

Hour Ending	Main Eastbound Approach			Minor Northbound Approach			Main Westbound Approach			Minor Southbound Approach			Pedestrians Crossing Main Road
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
7:00	2	651	4	1	0	2	2	897	1	11	0	4	2
8:00	4	755	5	4	0	8	3	970	13	10	1	0	1
9:00	2	384	1	1	0	5	1	405	7	8	1	4	2
10:00	1	437	7	3	1	9	9	412	7	8	3	4	6
15:00	2	475	2	1	1	4	4	454	5	9	0	0	1
16:00	7	986	4	3	0	6	11	793	27	16	2	9	1
17:00	29	1,182	6	1	0	3	4	843	19	13	1	5	5
18:00	7	1,202	8	2	0	3	5	887	23	13	2	2	5
<b>Total</b>	<b>54</b>	<b>6,072</b>	<b>37</b>	<b>16</b>	<b>2</b>	<b>40</b>	<b>39</b>	<b>5,661</b>	<b>102</b>	<b>88</b>	<b>10</b>	<b>28</b>	<b>23</b>

## Justification 5: Collision Experience

Preceding Months	Number of Collisions*
1-12	0
13-24	1
25-36	0

\* Include only collisions that are susceptible to correction through the installation of traffic signal control

## Justification 6: Pedestrian Volume

a.- Please fill in table below summarizing total pedestrians crossing major roadway at the intersection or in proximity to the intersection (zones). Please reference Section 4.8 of the Manual for further explanation and graphical representation.

	Zone 1		Zone 2		Zone 3 (if needed)		Zone 4 (if needed)		Total
	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	
Total 8 hour pedestrian volume	0	25	0	0	0	0	0	0	
Factored 8 hour pedestrian volume	25		0		0		0		
% Assigned to crossing rate	100%		50%		0%		0%		
Net 8 Hour Pedestrian Volume at Crossing									25
Net 8 Hour Vehicular Volume on Street Being Crossed									11,905

b.- Please fill in table below summarizing delay to pedestrians crossing major roadway at the intersection or in proximity to the intersection (zones). Please reference Section 4.8 of the Manual for further explanation and graphical representation.

	Zone 1		Zone 2		Zone 3 (if needed)		Zone 4 (if needed)		Total
	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	Assisted	Unassisted	
Total 8 hour pedestrian volume	0	25	0	0	0	0	0	0	
Total 8 hour pedestrians delayed greater than 10 seconds	0	0	0	0	0	0	0	0	
Factored volume of total pedestrians	25		0		0		0		
Factored volume of delayed pedestrians	0		0		0		0		
% Assigned to Crossing Rate	100%		50%		0%		0%		
Net 8 Hour Volume of Total Pedestrians									25
Net 8 Hour Volume of Delayed Pedestrians									0

**Justification 1: Minimum Vehicle Volumes**

Free Flow Rural Conditions

Justification	Guidance Approach Lanes				Percentage Warrant								Total Across	Section Percent
	1 Lanes		2 or More Lanes		Hour Ending									
Flow Condition	FREE FLOW	RESTR. FLOW	FREE FLOW	RESTR. FLOW	7:00	8:00	9:00	10:00	15:00	16:00	17:00	18:00		
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
1A	480	720	600	900	1,575	1,773	819	901	957	1,864	2,106	2,154		
	COMPLIANCE %				100	100	100	100	100	100	100	100	100	800
1B	120	170	120	170	18	23	19	28	15	36	23	22		
	COMPLIANCE %				15	19	16	23	13	30	19	18	153	19
<b>Free Flow Signal Justification 1:</b>					Both 1A and 1B 100% Fulfilled each of 8 hours Lesser of 1A or 1B at least 80% fulfilled each of 8 hours								Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
													Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Justification 2: Delay to Cross Traffic**

Free Flow Rural Conditions

Justification	Guidance Approach Lanes				Percentage Warrant								Total Across	Section Percent
	1 lanes		2 or More lanes		Hour Ending									
Flow Condition	FREE FLOW	RESTR. FLOW	FREE FLOW	RESTR. FLOW	7:00	8:00	9:00	10:00	15:00	16:00	17:00	18:00		
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>										
2A	480	720	600	900	1,557	1,750	800	873	942	1,828	2,083	2,132		
	COMPLIANCE %				100	100	100	100	100	100	100	100	100	800
2B	50	75	50	75	14	16	12	20	12	22	20	22		
	COMPLIANCE %				28	32	24	40	24	44	40	44	276	35
<b>Free Flow Signal Justification 2:</b>					Both 2A and 2B 100% fulfilled each of 8 hours Lesser of 2A or 2B at least 80% fulfilled each of 8 hours								Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
													Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**Justification 3: Combination**

Combination Justification 1 and 2

Justification	Justification Satisfied 80% or More	Two Justifications Satisfied 80% or More	
		YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Justification 1	Minimum Vehicle Volume	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Justification 2	Delay Cross Traffic	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
		NOT JUSTIFIED	

**Justification 4: Four Hour Volume**

Justification	Time Period	Total Volume of Both Approaches (Main)	Heaviest Minor Approach	Required Value	Average % Compliance	Overall % Compliance
		X	Y (actual)	Y (warrant threshold)		
Justification 4	8:00	1,750	12	115	10 %	16 %
	16:00	1,828	27	115	23 %	
	17:00	2,083	19	115	17 %	
	18:00	2,132	17	115	15 %	

**Justification 5: Collision Experience**

Justification	Preceding Months	% Fulfillment	Overall % Compliance
Justification 5	1-12	0 %	7 %
	13-24	20 %	
	25-36	0 %	

**Justification 6: Pedestrian Volume**

**Pedestrian Volume Analysis**

	8 Hour Vehicular Volume $V_8$	Net 8 Hour Pedestrian Volume				
		< 200	200 - 275	276 - 475	476 - 1000	>1000
Justification 6A	< 1440					
	1440 - 2600					
	2601 - 7000					
	> 7000	Not Justified				

**Pedestrian Delay Analysis**

	Net Total 8 Hour Volume of Total Pedestrians	Net Total 8 Hour Volume of Delayed Pedestrians		
		< 75	75 - 130	> 130
Justification 6B	< 200	Not Justified		
	200 - 300			
	> 300			

# Results Sheet

[Input Sheet](#)

[Analysis Sheet](#)

[Proposed Collision](#)

[GO TO Justification:](#)

Intersection: Countryside Dr and Bellini Ave

Count Date: 2023/01/24

## Summary Results

	Justification	Compliance	Signal Justified?	
			YES	NO
1. Minimum Vehicular Volume	A Total Volume	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Crossing Volume	19 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Delay to Cross Traffic	A Main Road	100 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Crossing Road	35 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Combination	A Justificaton 1	19 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Justification 2	35 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. 4-Hr Volume		16 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5. Collision Experience		7 %	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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6. Pedestrians	A Volume	Justification not met	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B Delay	Justification not met	<input type="checkbox"/>	<input checked="" type="checkbox"/>