

SIGNAL REMOVAL ANALYSIS WORKSHEET

Stage 1 – Intersection Inventory

Intersection: _____ City: _____

Major St. _____ Lanes/Approach _____ ADT: _____

Minor St. _____ Lanes/Approach _____ ADT: _____

Major Street Speed: _____ (mph)

Side-Street Sight Distance: _____

Stage 2 – Preliminary Screening

1. Minimum Required Sight Distance (from Table 16-4) _____

Is Intersection Sight Distance Less Than Minimum?

2. Do Special Site Conditions Make Signal Removal Institutionally Infeasible?

Comments: _____

3. Does Existing (or future) Traffic Satisfy Signal Installation Warrants?

4. Did Any Special Reasons Justify Signal Installation?

Are These Reasons Still Valid?.....

Comments: _____

NO	YES

IF ANY OF THE ABOVE QUESTIONS ARE ANSWERED "YES" – DEFER SIGNAL REMOVAL.
 OTHERWISE, PROCEED WITH DETAILED ANALYSIS

SIGNAL REMOVAL ANALYSIS WORKSHEET

Stage 3 – Detailed Analysis: Two-Way Stop Control

3.1 Estimated Impacts on Crashes

		Total Major Street Volume	Higher Volume Side Street Approach		Crash Experience	
Minimum Required (Table 16-1)	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	Check if Minimum Satisfied		
Nth Highest Hour - Volume	1st	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>		Total Crashes <input style="width: 100%;" type="text"/>	
	2nd	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>		Period Covered: From <input style="width: 50%;" type="text"/> To <input style="width: 50%;" type="text"/>	
	3rd	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>		Length of Time Period <input style="width: 50%;" type="text"/> years	
	4th	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>		Average Annual Crash Frequency (X ₂) <input style="width: 100%;" type="text"/>	
	5th	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>		From Equation 16-1 $Y = 1.01 + 0.139X_1 - 0.605X_2$ Predicted Change in Annual Crash Frequency (Y) = <input style="width: 100%;" type="text"/>	
	6th	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>			
	7th	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>			
	8th	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>			
Volume Magnitude (No. of Hours Meeting Requirement) X ₁ = <input style="width: 50%;" type="text"/>						

3.2 Traffic Flow Related Impacts

Change Per Vehicle (From Impacts Worksheet)	Daily Change (From Impacts Worksheet)	x 320	=	Annual Change
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	Idling Delay	→	<input style="width: 100%;" type="text"/>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	Total Delay	→	<input style="width: 100%;" type="text"/>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	Total Stops	→	<input style="width: 100%;" type="text"/>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	Excess Fuel	→	<input style="width: 100%;" type="text"/>

3.3 Junction – Related Cost Impacts

Annual Signal Operation Costs	Costs Of Signal Removal x CRF* = Annual Costs	
Electrical <input style="width: 100%;" type="text"/>	Remove Hardware <input style="width: 100%;" type="text"/>	x 0.142 <input style="width: 100%;" type="text"/>
Maintenance <input style="width: 100%;" type="text"/>	Install Stop Signs <input style="width: 100%;" type="text"/>	x 0.142 <input style="width: 100%;" type="text"/>
Timing <input style="width: 100%;" type="text"/>	Annual Stop Sign Maintenance <input style="width: 100%;" type="text"/>	
Total <input style="width: 100%;" type="text"/>	Total <input style="width: 100%;" type="text"/>	

* (CRF – Capital Recovery Factor For 15 Years At 12% Interest)

Annual Operation Costs – Annual Removal Costs = Annual Cost Savings From Signal Removal:

3.4 Anticipated Strength of Opposition/Support For Signal Removal

Comments: _____

3.5 Final Decision:

Retain Signal

Recommend Removal

Comments: _____
