

# SAFETY & OPERATIONS CERTIFICATION DOCUMENT AMENDMENT

BUREAU OF TRAFFIC OPERATIONS

То:	Region Planning Chief: <chief name=""> Bureau of Traffic Operations – Traffic Engine</chief>	ering & Safety	Section
From:	<analyst name=""> Individual Performing the Vergion</analyst>	etting/Modeli	ng
Data	Region <mm dd="" yyyy=""></mm>		
Date: RE:	Amendment of the Safety & Operations Cert	ification Docu	mont
NE.	Original Approval Date: <mm dd="" yyyy=""></mm>	ilication Docu	ment
	Design ID:		
	Construction ID:		
	Highway:		
	Project Title:		
	Project File:		
	County		
	Scheduled Construction Year:		
	Improvement Concept Code:		
	•		
Operat	ions Certification Document. Any analysis with	nin this docum	at were not included within the original Safety and ent may have used different configuration files or ation produced shall be used for comparison purposes
docum Develo If appli we beli	ent reflects the intent of the policy and guidel pment Manual.  cable, having considered the operational perfo	ines described	and any proposed improvements, we believe this in section 11-38 of the Wisconsin Facilities  e existing corridor and any proposed improvements, elines described in section 11-52 of the Wisconsin
Prepar	er:		
Region	Analyst	Date	_
Approv	val:		
			_
	of Traffic Operations	Date	
ırattic	Engineering and Safety Section		
Region	Supervisor	 Date	_

## Purpose of Amendment

A1. Provide a narrative for the reason of the amendment to the original Safety & Operations Certification Document.

Describe the purpose of the amendment such as project limit adjustments or additional alternatives that were reviewed and any additional information.

## **Diagnosis**

A2. For <u>new</u> Sites of Promise or additional sites, describe the crashes or operational deficiencies. If the location was described in the original Safety & Operations Certification Document, skip to Section A3.

Sites of Promise:

List <u>new</u> Sites of Promise (i.e., "flagged locations") or additional sites evaluated within the project area. Include the Intersection ID/Intersection Name and Route/Mile post information to describe the location.

Determine and describe the safety or operational issues. Identify contributing factors and if they are correctible by an engineering solution. Describe any crash trends that may have occurred.

**Attachments:** Project location/overview map, Wisconsin Network Screening Spreadsheet (WINSS) Intersection and Segment results, Crash Diagrams, Vetting comments.

The Safety Certification Worksheet does not need to be updated with the amendment.

# <u>Countermeasure/Alternative Identification, Analysis Results and Economic</u> Appraisal

A3. Provide a brief description of the alternative(s) and the contributing factors that are being targeted. Include information within A3.1 from the original document for comparison purposes only. If the location was not identified within the original document, list all alternatives and the contributing factors that are being targeted by the alternative.

#### Location:

Reason for improvement (check all that apply): Safety □			Operations		
Alternative(s)	General Desc	cription	How improvements address safety/operational issues		
Alternative Name:					
Alternative Name:					

For each location, create a new location table. Then list the alternatives and describe the contributing factors that would be mitigated with each alternative. Indicate if the improvement is for Safety, Operations, or both.

**Attachments:** Alternative concept drawings

Bureau of Traffic Operations (BTO) approval is <u>required</u> for all projects that consider alternatives as part of the Safety & Operations Certification Document.



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### A3.1. Analysis Results

Analysis Location:	List the analysis location or limits of the proposed treatment with		
Analysis Location.	the largest impact		
Safety Analysis Method:	List which method is used (Method 1, 2, or 3)		
External CMF Value:	List the CMF value if using an external CMF. External CMFs are any		
External Civir value.	CMFs used outside of the analysis software.		
	List the external CMF source, such as from the WisDOT CMF table.		
External CMF Source:	See Traffic Engineering, Operations and Safety Manual (TEOpS) 12-		
	<i>3-1.</i>		
Unique Safety Analysis	List any noteworthy comments about the analysis or inputs.		
Notes:	List any noteworthy comments about the unarysis of inputs.		

		Base	Alt. 1	Alt. 2	Alt. 3
Alternative Name					
	Fatal & Injury Crashes				
	Property Damage Only				
Safety	Crashes				
Certification	Total Crashes				
Process	Crash Cost Value				
(See FDM	Project Cost				
11-38)	Net Safety Benefit				
	Net Cost				
	Safety B/C				
	Delay Cost Over				
	Project Life				
	Net Operational Benefit				
Operations Certification	Operations B/C				
Process	Safety & Operations B/C				
(See FDM	STN-Only Operational				
11-52-15)	Benefit				
,	(intersections only)				
	STN-Only B/C				
	(intersections only)				

In some cases, an alternative may be less expensive than the base case. For these cases, use the lowest cost alternative as the base case when performing the Economic Appraisal. When evaluating alternatives such as High Friction Surface Treatment or signal-related work, where resurfacing costs would be the same across all possible alternatives, the base case cost can be \$0.

**Attachments:** Cost Estimates, Crash Prediction Evaluation Reports, Highway Safety Benefit-Cost Analysis tool results (Method 1 only), Economic Analysis Report, Operations Certification Summary (if applicable)



# SAFETY & OPERATIONS CERTIFICATION DOCUMENT AMENDMENT

BUREAU OF TRAFFIC OPERATIONS

A3.2. Provide the economic justification for alternative(s) considered. Include information within A3.2 from the original document for comparison purposes only. If the location was not identified within the original document, list all alternatives and the economic condition for each.

Amalusia Lagatian	Alt.	B/Cs		SSOP/OSOP/	Facultais of Condition	
Analysis Location		Safety	Ops	Total	Additional Site	Economic Condition
	Base					
	1					
	2					
	3					

For each location, create new rows in the table to accommodate all alternatives, including the base case. Provide the benefit-cost ratios for the safety and operational analyses and the total. If the analysis was not conducted put N/A. Identify the reason why the location was analyzed and the resulting economic condition.

A3.3. Describe other information relevant to the project such as community considerations, unique features, potential funding sources, etc.

#### **ATTACHMENTS**

Include attachments that were <u>not</u> included within the original analysis that are pertinent to the amended Safety & Operations Certification Document analysis

- A. Project Information
  - a. Project Location/Overview Map
- B. Diagnosis Documentation
  - a. WisTransPortal crash data spreadsheet with vetting comments
  - b. Crash Diagram(s)
- C. Countermeasure/Alternative Identification
  - a. Layout/Schematic for each alternative
- D. Analysis Results and Economic Appraisal
  - a. Cost estimate for each alternative
  - b. Crash Prediction Evaluation Report for each alternative
  - c. Economic Analysis Report
  - d. Highway Safety Benefit-Cost Analysis Tool results
- E. Operations Certification Summary (if applicable)
  - a. Turning movement counts
  - b. Diagram of traffic volumes for each analysis period
  - c. AWSC warrants
  - d. Signal warrants
  - e. Software reports for operation analysis
  - f. DT 1887
  - g. Exhibit highlighting queues vs. available storage for each analysis period
  - h. OCP Benefit-Cost Tool printouts
- F. Original Safety & Operations Certification Document