

*Wisconsin Department of Transportation (WisDOT)*  
**Stand-alone Signals and ITS Program**  
**FY17 Project Application Form**

### 1. Project Description

PROJECT NAME FY 2017 Flasher Replacement		
FILE NAME (AA_BBBB_FY17 Standalone Program App_CCC.docx)* 02_Flasher_Replacement_FY17_Standalone_Program_App_20160212.Docx		
*File should be named consistently with the following nomenclature: AA=Project Regional Rank; BBBB=Project Name; CCC=Date.		
NAME OF ROAD/INTERSECTION <i>Various</i>		HWY NO. <i>Various</i>
COUNTY <i>Various</i>	CITY/TOWN <i>Various</i>	REGION <i>Northwest</i>

### 2. Identification of Needs

Identify which area for improvement the need falls under:	
<input type="checkbox"/> 1. New Signal Installation	Procurement and installation of controllers, bases and signals
<input type="checkbox"/> 2. Signal Replacement	Replacement of signals including geometric improvements and upgrades for FY17 construction
<input checked="" type="checkbox"/> 3. Signal Rehabilitation	Upgrade, install or replace detection, controllers, battery backup, etc.
<input type="checkbox"/> 4. Signal Retrofit	Procure and install monotubes, procure and install flashing yellow arrows, safety improvements not requiring major construction and adaptive signal systems.
<input type="checkbox"/> 5. Signal Retiming	Data collection, evaluation, prepare signal timing plan, develop and implement corridor coordination plan to support 3 and 5 year timing schedule
<input type="checkbox"/> 6. LED Signal Replacement*	Procure and install all materials for annual LED signal 7 year replacement cycle
<input type="checkbox"/> 7. Intersection Communication	Design-build and integrate fiber optic links between existing fiber infrastructure and signal systems, or procure and install cellular Ethernet modems
<input type="checkbox"/> 8. ITS Device Lifecycle Replacement	Upgrade, install or replace detection, controllers, battery backup, etc.
<input type="checkbox"/> 9. Software	Upgrade, install or replace software
<input type="checkbox"/> 10. ITS Device Installation	Upgrade backbone fiber network equipment and switches, replace ramp meter LED's, update non standard CCTV's
<input type="checkbox"/> Other	

\*Anticipated improvements are understood for LED Signal Replacement projects. Therefore, it is only necessary to respond to the Project Description (3a) and Existing Conditions (3b) questions in section 3.

### 3. Proposed Improvements

#### 3a. Project Description

In some detail, describe the proposed project and how it will address the identified need. If the project includes multiple proposed improvement locations, identify the locations.	<p>The proposed project will replace existing hardwired warning flasher beacons with solar powered warning flashers. Twenty-one flasher beacon units at sixteen locations will be replaced, see attached listing. Replacing existing hardwired flashing beacons with solar powered flashing beacons will decrease energy consumption, decrease the number of bills the Region receives and will replace aging equipment.</p>
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### **3b. Existing Conditions**

Describe the existing conditions of the existing infrastructure. For example, type and age of current infrastructure; what is its current condition?

The existing flashers are hardwired. Most are around 10-15 years old.

### **3c. Project Performance Goals and Objectives**

Describe the proposed project performance goals and objectives. How will project success be determined?

The project performance goals and objectives are to reduce the number of warning flasher beacons hard wired to electric services. Success will be measured by the number of successful installs of solar powered warning flashers.

### **3d. Mobility Improvements**

In some detail, describe the anticipated mobility improvements of the proposed project and how they will be measured (i.e. detection will be used to determine before and after peak hour delay).

This project will not improve mobility.

### **3e. Operations and Maintenance Impacts**

In some detail, describe how this project will efficiently use or reduce operations and maintenance funds.

The project will reduce operations funds by replacing electrical power with solar power for the flasher beacons. This will increase the efficiency of the use of operations and maintenance funds.

### **3f. Energy and Environmental Impacts**

In some detail, describe the anticipated energy and environmental impacts of the proposed project.

This project will reduce energy consumption by replacing hardwired electrical connections with solar panels for the flasher beacons. This will be a benefit to the environment, as electrical energy consumption will be reduced.

### **3g. Safety Improvements**

In some detail, describe the anticipated safety improvements of the proposed project.

This project will not improve safety, but it will maintain the current level of safety by replacing aging equipment.

### **3h. Additional Justification**

Provide additional detail that should be considered during the evaluation of this project. This may include the consequences of what would happen should the project not be implemented.

#### 4. Project Cost

Estimate project costs in today's dollars:	FY17	FY18	FY19	FY20*
Design:				
Real Estate: (Note: real estate acquisition funds are NOT included in this appropriation, other funding sources need to be identified in the space below)				
Construction Items (Include Construction Engineering and Contingencies): (Note: up to 50% of the geometric improvements needed can be funded by this appropriation )				
Let construction				
Installation via procurement contracts	\$46,000			
State furnished materials				
Other Costs:				
<b>**TOTAL COST =</b>	<b>\$46,000</b>			

\* The program does not extend passed FY18, however for planning purposes please include potential projects for FY20 which could be funded through a reauthorization of this program or an alternate funding source.

\*\* The project sponsors will be responsible for any project costs in excess of the approved appropriation funding amount. Appropriation funds must be encumbered during the FY identified.

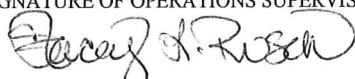
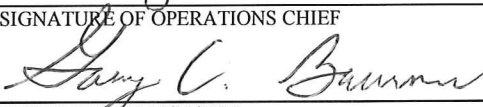
## 5. Additional Project Information

Is this specific project addressed through PDS within the next 6 years?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<p>Performance measures: does this project help with achieving WisDOT's performance goals? Refer to <a href="http://dotnet/mapss/index.htm">http://dotnet/mapss/index.htm</a></p> <ul style="list-style-type: none"> <li>- <i>Mobility</i>: Delivering transportation choices that result in efficient trips and no unexpected delays.</li> <li>- <i>Accountability</i>: The continuous effort to use public dollars in the most efficient and cost-effective way.</li> <li>- <i>Preservation</i>: Protecting, maintaining and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure, while protecting our natural environment.</li> <li>- <i>Safety</i>: Moving toward minimizing the number of deaths, injuries and crashes on our roadways.</li> <li>- <i>Service</i>: High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.</li> </ul>	<p>Select all that apply:</p> <p><input type="checkbox"/> Mobility</p> <p><input checked="" type="checkbox"/> Accountability</p> <p><input checked="" type="checkbox"/> Preservation</p> <p><input type="checkbox"/> Safety</p> <p><input type="checkbox"/> Service</p>
Is this project listed as a strategic objective in the State Traffic Operations Program Plan (STOPP)? Refer to <a href="#">\\Mad00fph\4public\BHO\meeting-minutes\bto\stopp\</a>	<p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>If yes, what section of the STOPP?</p>

### Timeline

Steps in process	Months (MM/YY – MM/YY)	Anticipated Quarter of Encumbrance	Anticipated Required Resources (Reg PDS, Reg OPS (eng, electricians), consultant contract, electrical contractors, etc.)
1. Design			
2. Real Estate Acquisition			
3. Procurement	7 Months (7/16 – 1/17)	3 <sup>rd</sup> Quarter	Region OPS Engineers and Electricians
4. Construction			
5. Other			

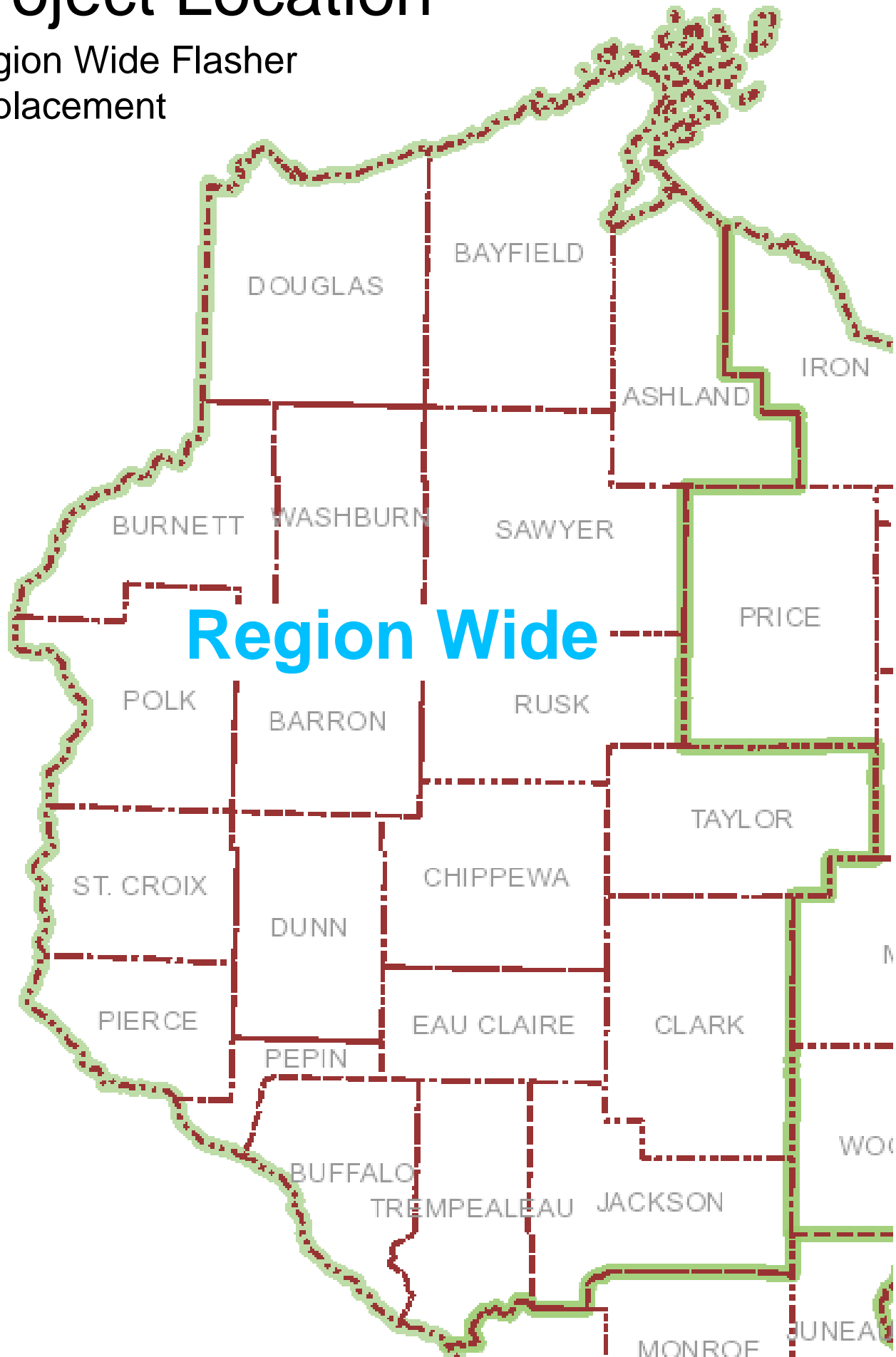
## 6. Contact Information and Signature

PRIMARY CONTACT NAME <i>Jennifer Berg</i>		TITLE <i>CE Trans Senior, Traffic Engineer</i>	
REGION <i>Northwest</i>			
EMAIL ADDRESS <i>JenniferL.Berg@dot.wi.gov</i>		TELEPHONE (715) 836-2853	
SIGNATURE OF OPERATIONS SUPERVISOR 			DATE <i>2/12/2016</i>
SIGNATURE OF OPERATIONS CHIEF 			DATE <i>2/12/2016</i>

REVISED DRAFT 10/31/2015

# Project Location

Region Wide Flasher  
Replacement



**Estimated Cost for Flasher Replacement**  
**Existing to Solar Powered**

Flasher No.	Location	County	Work	Cost
F06-0232	STH 25/STH 35 N. Jct	Buffalo	Replace Flasher Unit	\$2,000.00
F65-0233	USH 53/USH 63N	Washburn	Replace Flasher Unit, Standard	\$2,250.00
F16-0280	I-535 SB/5th St.	Douglas	Replace Flasher Unit, Standard	\$2,250.00
F09-0320	STH 40/STH 64	Chippewa	Replace Flasher Unit	\$2,000.00
F54-0303	USH 8/STH 40	Rusk	Replace 2 Flasher Units & XFMR bases	\$4,300.00
F27-0326	USH 10/STH 12/STH 27	Jackson	Replace Flasher Unit	\$2,000.00
F06-0334	STH 95	Buffalo	Replace Flasher Unit, Standard & Base	\$2,800.00
F10-0344	USH 10/STH 27	Clark	Replace Flasher Unit	\$2,000.00
F46-0352	USH 10/STH 25 SB	Pepin	Replace Flasher Unit	\$2,000.00
F65-0357	STH 48/Main St	Washburn	Replace 2 Flasher Units, XFMR bases, and hardware	\$5,800.00
F55-0372	USH 12/STH 128	St. Croix	Replace 3 Flasher Units	\$6,000.00
F57-0413	STH 27/STH 77	Sawyer	Replace Flasher Unit	\$2,000.00
F27-0482	USH 27/USH 95	Jackson	Replace 2 Flasher Units	\$4,000.00
F46-0483	STH 25/3rd Ave West	Pepin	Replace Flasher Unit	\$2,000.00
F47-0488	USH 63/USH 10 W. Jct	Pierce	Replace Flasher Unit	\$2,000.00
F55-1001	USH 63/CTH G	St. Croix	Replace Flasher Unit	\$2,000.00

**Application Total = \$45,400.00**