

Are there any additional technical documents to supplement the RFP (e.g., concept of operations, design plans, detailed technical specifications, etc.)?

**RESPONSE: No.**

Does the required system have to be in compliance with the MUTCD?

**RESPONSE: No.**

Are design plans stamped by licensed professional required?

**RESPONSE: No.**

The RFP states the devices should communicate wirelessly.

What wireless frequencies are allowable?

**RESPONSE: At submitter's recommendation.**

Are licensed wireless frequencies required?

**RESPONSE: Only submitter's recommendation require.**

Are unlicensed wireless frequencies allowable?

**RESPONSE: Yes.**

Is cellular wireless (4g/5g) allowable?

**RESPONSE: Yes.**

Is a point to multi point wireless design allowable?

**RESPONSE: Yes.**

Is a daisy chain wireless design allowable?

**RESPONSE: Yes.**

Will mounting wireless antennas/radios/cables be allowed on towers and structures owned/controlled by the GNOEC?

**RESPONSE: Yes.**

Will a permit/agreement for the tower/structure be required?

**RESPONSE: Yes.**

Will a structural analysis of the tower/structure be required?

**RESPONSE: Possibly.**

If the tower/structure should be found to need strengthening/reinforcing to accommodate the wireless equipment, will this be allowed?

**RESPONSE: No.**

The RFP states the light should be yellow and visible for ½ mile.

Is there a maximum allowable visibility for the light?

**RESPONSE: No.**

Should the light be visible to both directions of traffic (upstream and downstream) or only to one direction?

**RESPONSE: Visible only to approaching traffic.**

What is the minimum/maximum number of led bulbs in the light?

**RESPONSE: At submitter's recommendation (light must be visible at ½ mile distance)**

What is the minimum/maximum size and minimum/maximum weight of the light?

**RESPONSE: Light, solar panel, battery, communications equip should be 25 lbs. or less.**

What is the minimum/maximum lumens allowable for the light?

**RESPONSE: At submitter's recommendation (light must be visible at ½ mile distance)**

What is the minimum lifespan allowable for the light?

**RESPONSE: 3 years.**

What rate of flash is required?

**RESPONSE: At submitter's recommendation. Rapid desirable.**

Is there any signage necessary to correlate the intent of the lights to the drivers?

**RESPONSE: No.**

What is the minimum/maximum size and minimum/maximum weight of the solar panel?

**RESPONSE: Light, solar panel, battery communications equip should be 25 lbs. or less.**

What is the minimum/maximum size and minimum/maximum weight of the battery?

**RESPONSE: Light, solar panel, battery communications equip should be 25 lbs. or less.**

How long does the system need to operate on the battery alone without sun light?

**RESPONSE: 12 hours.**

What chemical composition of the battery is allowable (Lead acid/Lithium)?

**RESPONSE: At submitter's recommendation.**

What is the preferred voltage (6v/12v/24v)?

**RESPONSE: Light, solar panel, battery communications equip should be 25 lbs. or less.**

What is the minimum battery life allowable?

**RESPONSE: 3 years.**

What is the minimum/maximum size and minimum/maximum weight of the equipment cabinet?

**RESPONSE: At submitter's recommendation. Smaller/lighter preferred.**

What is the preferred lock number/type for the equipment cabinet?

**RESPONSE: At submitter's recommendation.**

How many keys need to be furnished?

**RESPONSE: 4.**

What direction should the door swing (upstream/downstream/toward traffic/toward water)?

**RESPONSE: Upstream/toward water).**

How to attach the installation to the bridge?

**RESPONSE: Likely be attached to existing mile markers.**

Are attachment methods other than to the mile marker allowable?

**RESPONSE: No.**

Is drilling of the concrete bridge rail allowable?

**RESPONSE: No.**

Is clamping on to the bridge rail preferred?

**RESPONSE: No.**

Is clamping on to the bridge girder or pier cap allowable?

**RESPONSE: No.**

Does the installation have to be crash tested as it's attaching to bridge rail?

**RESPONSE: No attachments to rail allowed.**

Does the installation have to be designed for wind loading to the bridge rail/girder/pile?

**RESPONSE: No.**

If so, what wind speed?

**RESPONSE: NA**

What is the desired action when/if the ½ mile device spacing should land at a safety bay?

**RESPONSE: None required in Safety Bays. GNOEC will provide specific locations.**

Install the light (in the bay, before the bay, after the bay)?

**RESPONSE: NA**

Does the stopping sight distance need to be calculated for each light location?

**RESPONSE: No.**

Do the sights need to be specifically located based on the stopping sight distance?

**RESPONSE: No.**

What kind of warranty needs to be furnished?

**RESPONSE: 2 years on all equipment furnished.**

How long does the warranty need to last?

**RESPONSE: 2 years on all equipment furnished.**

Will any spare parts need to be furnished?

**RESPONSE: 8 spares of each component provided.**

Will there be a maintenance contract to maintain the system in the future?

**RESPONSE: No.**

The RFP states the system should be controllable from the Operations Center.

Does the system have to integrate into an existing hardware or software system(s)?

**RESPONSE: No.**

If so, what system(s)?

**RESPONSE: NA.**

Will there be any cost from the software developer to integrate?

**RESPONSE: NA.**

Would the systems operational actions need to be “logged” to document the status of the lights?

**RESPONSE: YES.**

If so, will the system need to log only the wireless signal to turn on the lights and then the wireless signal to turn off the lights (this would assume the lights stay on the whole time in between), correct?

**RESPONSE: YES.**

Or would the system need to query the devices on a regular basis to establish if the lights are on or off?

**RESPONSE: No.**

If so, would this logging data need to be stored by the edge equipment being installed, or will there be integration into an existing data storage system?

**RESPONSE: NA.**

How long would the data need to be stored for?

**RESPONSE: NA.**

Will the data be stored on site or off site?

**RESPONSE: NA.**

Would the storage need to be redundant to prevent loss of data?

**RESPONSE: NA.**

Who would need access to the data?

**RESPONSE: NA.**

Would the system need to “test” the operation of the lights on a programmed basis (like a test every day at noon) or at will?

**RESPONSE: Test on at operations center’s direction.**

Would the “test” results need to be logged and stored for later?

**RESPONSE: No.**

Would the system need to “test” the battery voltage or solar panel output? Test frequency?

**RESPONSE: No.**

Would the “test” results need to be logged and stored for later?

**RESPONSE: No.**

Would the system need to warn when a battery or solar panel reaches a minimum voltage value? If so, how to provide notifications?

**RESPONSE: No.**

Would the system need to use predictive intelligence to give advance warning when a battery or solar panel is degrading toward a minimum voltage value?

**RESPONSE: No.**