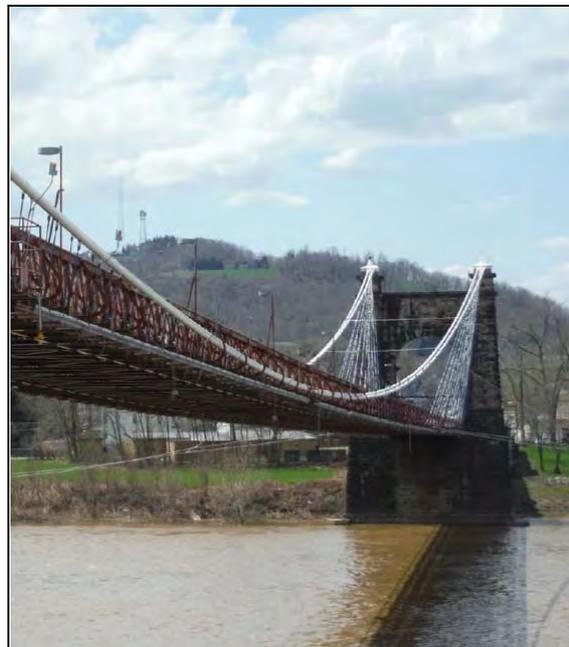


**Informational Workshop Public Meeting  
Wheeling Suspension Bridge  
Rehabilitation Project  
Ohio County, WV**

**Ohio County Public Library  
52 16<sup>th</sup> Street  
Wheeling, WV  
Monday, April 11, 2016  
4:00pm to 7:00pm**



**West Virginia Department of Transportation  
Division of Highways in cooperation with the Federal Highway  
Administration  
State Project S335-251-0.06  
Federal Project STP-0251(053)D**



**Wheeling Suspension Bridge  
Rehabilitation Project  
STATE PROJECT S335-251-0.06  
FEDERAL PROJECT STP-0251(053)D**

**WORKSHOP PURPOSE**

The purpose of this Informational Workshop Public Meeting is to provide information on the proposed Wheeling Suspension Bridge Rehabilitation Project located on WV 251 in Wheeling, and how you can provide your comments. The workshop is intended to be informal to maximize the interaction between the citizens and project team.

We encourage you to examine the project maps and displays, discuss the project with the members of our project team who are here today, and complete the enclosed comment sheet.

**WORKSHOP FORMAT**

The WVDOH procedures for public workshops are established to ensure meaningful citizen input in the development for proposed projects, in compliance with all applicable regulations and requirements. This informational workshop public meeting is from 4:00pm to 7:00pm and there will be **NO FORMAL PRESENTATION**.

**Registration**

If you have not already printed your name and address on the registration sheet, please remember to do so before you leave. Additional copies of this handout and the comment sheet are available at the registration table. The WVDOH welcomes your comments on the project; therefore, please feel free to write comments as you visit other displays around the room. You can drop the completed sheet in the Comment Box; return it to any WVDOH representative at the meeting, or mail it to the WVDOH at the address below or on the WVDOH Website at <http://go.wv.gov/dotcomment>, under Engineering Projects/ Wheeling Suspension Bridge.

**Environmental Studies**

Representatives from the WVDOH are here today to discuss the environmental study process. Maps depicting the proposed project location are

available for viewing. This meeting complies with the public involvement requirements of the National Environmental Policy Act (NEPA) and Section 106 of the National Preservation Act.

## **Engineering**

Representatives from the WVDOH and engineering consulting firm HDR Engineering, Inc. are available to discuss the rehabilitation project.

### **PROJECT DESCRIPTION**

The Wheeling Suspension Bridge was designed by Charles Ellet Jr. and built by the Wheeling and Belmont Bridge Company beginning in 1847 and completed in 1849. The single-span steel suspension bridge has an overall length of 1307'6" from anchor to anchor and a span length of 1008'6" from tower to tower centerline. Two lanes of traffic are carried on an open steel grid deck measuring 20'0" curb to curb. Two vertical hanger rods are bolted to each end of the floorbeams and connect to the main suspension cables via banding straps. There are two main suspension cables on each side of the bridge. The bridge has a decorative lighting system attached to the cables, railing and towers. Decorative and navigational lights are also attached to the superstructure. Bars along with vertical clearance signs are suspended over the roadway at each end of the bridge to deter vehicles over eight feet in height from crossing the bridge. The Wheeling Heritage Trail crosses under the east end of the bridge with 46'6" of vertical clearance to the underside of the suspension bridge.

#### **Repairs to the bridge**

In April 2015 the annual bridge inspection was completed on the Wheeling Suspension Bridge. Deficiencies were noted throughout the structure, and rehabilitation recommendations (structural repairs) have been proposed. While all of the repairs are important, some will be considered higher priority than others. However, since it has been decided that a construction project to make repairs to the bridge is necessary, it makes sense to address all of the needed repairs at the same time (See Table Summary of Recommendations).

On March 23, 2016, a bus exceeding the 2 ton weight limit and 8 foot vertical clearance crossed the bridge, causing the bridge to close to all vehicular and pedestrian traffic. A hands on visual inspection was done and no signs of damage or distress were observed and the bridge was reopened to traffic.

## Lighting

Two lighting concepts are being developed for the Wheeling Suspension Bridge project. Taking into account the historic nature of the bridge and distinctive features of the bridge towers and cables, renderings have been prepared for the two lighting concepts. Each concept is described in detail below and shown on the storyboards.

### Concept 1

The roadway and sidewalks will be lit using a post-mounted, traditional style light attached to the bridge railings. The railings, cables, and sides of the bridge will be lit using a linear tube or strip light. The towers will be lit using spot lights and flood lights to highlight the distinctive features such as the finials at the top of each tower. To help reduce maintenance and energy costs, the lighting will use LED technology. The roadway/sidewalk and aesthetic lighting will be controlled separately to improve operations and lighting function.

### Concept 2

The roadway and sidewalks will be lit using a post-mounted, acorn style light attached to the bridge railings. The railings, cables, and sides of the bridge will be lit using medallion or point lighting. The towers will be lit using spot lights and flood lights to highlight the distinctive features such as the finials at the top of each tower. To help reduce maintenance and energy costs, the lighting will use LED technology. The roadway/sidewalk and aesthetic lighting will be controlled separately to improve operations and lighting function.

## CURRENT PROJECT SCHEDULE

**Public Information Workshop.....April 11, 2016**

**Public Meeting Comments Due By.....May 11, 2016**

**Current Environmental Clearance/FHWA NEPA Document  
Approval.....To Be Determined**

**Expected Construction Start Date.....To Be Determined**

## COMMENTS

**Mr. Raymond J. Scites, P.E., Director, Engineering Division  
West Virginia Division of Highways  
1334 Smith Street  
Charleston, West Virginia 25301**

**Project Information and Comment Sheets can be found online at our web page:  
<http://go.wv.gov/dotcomment>  
Click on “Comment on Engineering Project”, then “Open”,  
And then click on “Wheeling Suspension Bridge”.**

## Wheeling Suspension Bridge: List of Proposed Structural Repairs

	Component Affected by Rehabilitation												
	Decorative, Functional or Navigation Lighting	Towers	Retaining Walls	Suspension Cables and Anchorages	Hanger Rods	Stay Cables	Lateral Stay Cables and Anchorages	Stiffening Trusses	Floorbeams	Longitudinal Struts	Sidewalks	Bearings	Steel Grid Deck
1 Mitigate Stay Cable Fretting at Tower Saddle						X							
2 Repair Navigation Light Access Platforms	X												
3 Remove Decorative Lighting Protective Cage ( <i>potential fall hazard</i> )	X												
4 Mitigate Potential Falling Debris Hazard at Towers		X											
5 Remove Vegetation from Towers, Retaining Walls and Lateral Stay Cable Anchorages			X				X						
6 Mitigate Suspension Cable Banding Strap Contacts and Displaced Shims				X									
7 Replace with New or Repair Existing Hanger Rod-Stay Cable Clamps					X	X							
8 Mitigate Contact Locations of Stay Cables and Hanger Rods					X	X							
9 Replace Broken Washers at Stiffening Truss Vertical Rod & Bottom Chord Connections							X						
10 Replace Plywood Shim Acting as Stiffening Truss Diagonal Bearing Plate							X						
11 Replace Sheared Bolts at Stiffening Truss Vertical Rod & Floorbeams Connections							X	X					
12 Replace Missing or Loose Bolts at Floorbeam & Longitudinal Strut Connections								X	X				
13 Replace Roller Bearings with New Bearings											X		
14 Repair Damaged Locations of Steel Grid Deck								X					X
15 Replace Failed Deck Seals													X
16 Replace Missing Pedestrian Fence Fasteners							X				X		
17 Realign Sidewalk Grating Panels											X		
18 Replace Structural Steel Adjacent to End Floorbeams								X	X				
19 Replace Bridge Lighting (Decorative, Functional and Navigational)	X												
20 Remediate Tower Encasement Undercutting		X											
21 Repair Deteriorated Masonry at Suspension Cable Anchorage Housings				X									
22 Repair Deteriorated Concrete at Lateral Stay Cable Anchorages							X						
23 Repair Broken Suspension Cable Wires at the Anchorages and Tower Saddles		X		X									
24 Repair Broken Stay Cable Wires Adjacent to Stay Cable Retrofit Blocks						X							
25 Remediate Stiffening Truss Checks and Splits							X						
26 Realign Tooth Dams													X
27 Repair Tower 2 South Saddle Access Hatch		X											
28 Preserve Stone Masonry Towers and Retaining Walls		X	X										
29 Apply New Paint System				X	X	X	X	X					
30 Replace Damaged or Illegible Bridge Signs	-	-	-	-	-	-	-	-	-	-	-	-	-
31 Enforce Over-Height and Over-Weight Vehicle Restrictions	-	-	-	-	-	-	-	-	-	-	-	-	-

# Wheeling Suspension Bridge Rehabilitation

State Project: S335-251-0.06  
Federal Project: STP-0251 (053)D



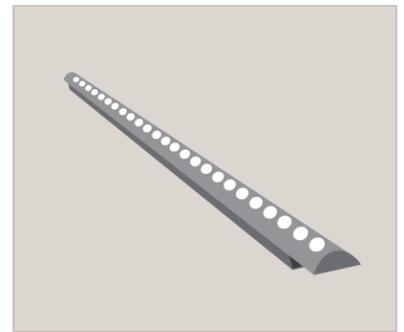
## CONCEPT 1

The roadway and sidewalks will be lit using a post-mounted, traditional style light attached to the bridge railings. The railings, cables, and sides of the bridge will be lit using a linear tube or strip light. The towers will be lit using spot lights and flood lights to highlight the distinctive features such as the finials at the top of each tower. To help reduce maintenance and energy costs, the lighting will use LED technology. The roadway/sidewalk and aesthetic lighting will be controlled separately to improve operations and lighting function.



### Roadway & Sidewalk Lighting

- 15-16' height
- Similar to historic fixture
- LED Lighting



### Decorative Lighting

- LED strip lighting provides constant illumination of cables and bridge
- LED flood and spot lights wash light over distinctive features



# Wheeling Suspension Bridge Rehabilitation

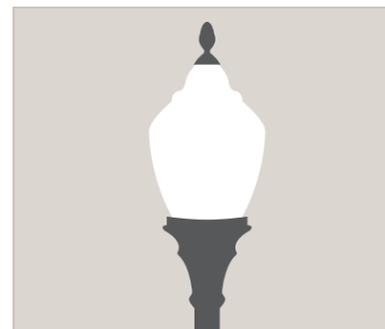
State Project: S335-251-0.06  
Federal Project: STP-0251 (053)D



## CONCEPT 2

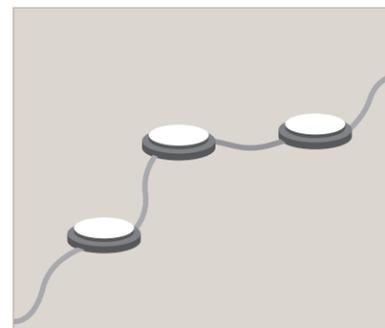


The roadway and sidewalks will be lit using a post-mounted, acorn style light attached to the bridge railings. The railings, cables, and sides of the bridge will be lit using medallion or point lighting. The towers will be lit using spot lights and flood lights to highlight the distinctive features such as the finials at the top of each tower. To help reduce maintenance and energy costs, the lighting will use LED technology. The roadway/sidewalk and aesthetic lighting will be controlled separately to improve operations and lighting function.



### Roadway & Sidewalk Lighting

- 15-16' height
- Traditional acorn fixture with decorative finial
- LED lighting



### Decorative Lighting

- LED medallion or individual point lights provide a series of sequential dots on bridge cables
- LED flood and spot lights wash light over distinctive features



DATE:

Mr. RJ Scites, P.E.  
Director, Engineering Division  
West Virginia Division of Highways  
1334 Smith Street  
Charleston, West Virginia 25301

**DATE: Monday, April 11, 2016**  
**LOCATION: Ohio County Library**  
**SUBJECT: INFORMATIONAL WORKSHOP PUBLIC MEETING**  
**PROJECT: Wheeling Suspension Bridge Rehabilitation Project**  
**S335-251-0.06**  
**STP-0251(053)D**  
**Ohio County**

**COMMENTS DUE BY Wednesday, May 11, 2016**

Please consider the following comments:

---

---

---

---

---

---

---

---

---

---

(Please print the following information)

NAME:

ADDRESS:

ORGANIZATION (IF ANY):

How did you hear about the Informational Workshop Public Meeting?

Project Information and Comment Sheets

Can be found online at our WVDOH Website at <http://go.wv.gov/dotcomment>.

Under Engineering Projects, Open, and then click Wheeling Suspension Bridge.