



**SARAH MILDRED LONG Bridge Replacement**  
*The Regional River Crossing*

**JULY 11, 2013 DESIGN WORKSHOP**  
**SARAH MILDRED LONG BRIDGE REPLACEMENT**  
**THE REGIONAL RIVER CROSSING**

**SUMMARY OF BRIDGE RAILING SELECTION RESULTS**  
**JULY 19, 2013**

**Introduction**

The new Sarah Mildred Long Bridge will require a TL-4 rated bridge railing. This is a rating given by national codes to meet impact loads for this type of bridge. There are several railing types that meet this design criteria to pick from. The design standards for this type of bridge rail for vehicle traffic and bicycles require a railing height of 42" (3'-6"). This is 14" lower than the railing on the existing bridge.

During the Design Workshop on April 26, 2013, the participants were presented with three options for bridge railing type that satisfy the requirements: Fully Open Bridge Rail, Partially Open Bridge Rail, and Solid Concrete Bridge Rail. The participants were shown examples of bridge railings from other bridges, as well as animations showing the driver's perspective along the new bridge with each bridge railing type. Participated voted and selected the Fully Open Bridge Rail as the preferred railing.

At the July 11<sup>th</sup> Design Workshop, the participants were presented three fully open bridge rail options with renderings of each railing on the bridge structure. After the presentation, there was time for open discussion. A large banner, as shown in Figure 1, was displayed in the room to further assist the participants in their selection of preferred railing type.

**Summary of Preferences Selected**

Scoring of the three (3) railing types was done on a scale of 1 to 10, with 10 being the highest possible score. The participants were given voting forms with extra space to provide their written comments. The results of the preferences were: Bridge Railing Option 1, with an average score of 9.1, Bridge Railing Option 3 with an average score of 4.9, and Bridge Railing Option 2 with an average score of 3.6. The results of the voting preferences are shown in Figure 2.

The winning bridge railing type is the **Bridge Railing Option 1**



# SARAH MILDRED LONG Bridge Replacement

## The Regional River Crossing

Figure 1. Bridge Railing Banner

### BRIDGE RAILING

#### Fully Open Bridge Rail Options

**Option 1**

Rail Cross Section

Bridge Cross Section

Driver's perspective traveling northbound towards Kittery, Maine (looking southeast with Badgers Island in the view)

**Option 2**

Rail Cross Section

Bridge Cross Section

Driver's perspective traveling northbound towards Kittery, Maine (looking southeast with Badgers Island in the view)

**Option 3**

Rail Cross Section

Bridge Cross Section

Driver's perspective traveling northbound towards Kittery, Maine (looking southeast with Badgers Island in the view)

SARAH MILDRED LONG  
Bridge Replacement  
The Regional River Crossing

MaineDOT  
In partnership with the  
State of  
New Hampshire  
and the  
Federal Highway  
Administration



# SARAH MILDRED LONG Bridge Replacement

## The Regional River Crossing

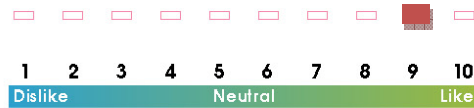
Figure 2. Bridge Style Preference Results

 **Design Workshop**  
SARAH MILDRED LONG Bridge Replacement  
The Regional River Crossing  
July 11, 2013

### Bridge Railing Preference Form

Using the black pens provided, please fill in completely one red box for each railing to give your preferences. If no box is filled then a 5 will be recorded as Neutral.  
NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

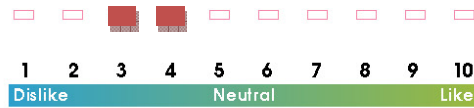
#### Option 1



9.1

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

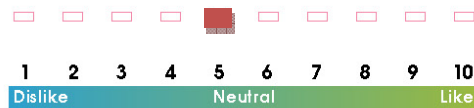
#### Option 2



3.6

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### Option 3



4.9

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_