

Implementation  
Assistance

Implementation Q&As

Leadership Endorsement

Contact

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## Implementation Assistance Application for Service Life Design for Bridges (R19A)

### Background

Because of deterioration, individual bridge components and systems such as bearings, decks, joints, columns, and girders require frequent and costly inspections, maintenance, and repairs that are often difficult to conduct. These activities cause lane closures that create congestion and impact safety for road workers and motorists. Bridge engineers need improved design options so they can deliver bridges that are operational for 100 years or more.

The *Service Life Design Guide for Bridges* is a comprehensive reference document that complements AASHTO specifications and equips bridge engineers with the tools to develop specific solutions for given conditions and constraints. It represents a new approach to designing for service life that results in longer-lasting bridge components and systems that are both easier to inspect and better suited to their environments. The guide focuses on typical bridges with one or multiple spans and a maximum single span length of 300 feet. It addresses design, fabrication, construction, operation, maintenance, repair, and replacement issues applicable to both new and existing bridges. It includes standard plans, model specifications for design and construction, and fault tree flow charts.

### Leadership Endorsement

Each application submitted from an organization or agency must have the endorsement of the Chief Executive Officer or designee. The letter of endorsement is submitted **as an attachment to the application**. Guidance for creating an endorsement letter appears in the application below.

### Priority Ranking

When multiple applications are submitted from an organization or agency, each application must have a designated priority ranking. Please rank all applications in one grouping including all product submissions from your agency. For purposes of ranking do not separate your organization's applications into categories for individual products, or levels of incentives such as Lead Adopter or User Incentive.

For example, if your agency submits four applications; two applications for R06C, one for C03/C11, and one for R10, your agency must rank each application in priority order from 1 to 4, with 1 as the highest priority and 4 as the lowest priority. For your convenience, you will find a box later in this application to designate the priority ranking. FHWA and AASHTO will take into consideration the agency's rankings when reviewing and evaluating the applications for implementation assistance. Your priority ranking should be expressed as "X of Y," as in "1 of 4."

### Available Implementation Assistance

Type of Assistance: Lead Adopter Incentive

Number of Awards: Up to 4

Funding Level: Up to \$150,000 in the form of direct funding and/or technical assistance for implementation activities.

Who Can Apply: State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), resource agencies

Application Deadline: June 27, 2015

## Requirements

1. Commitment of DOT leadership to incorporate Service Life Design methods, principles and practices within bridge and asset management programs.
2. Participation in training on the use of the Guide, development of example bridge designs incorporating Service Life Design concepts, and development of customized design procedures, checklists, specifications, etc. to support the continued organizational integration of Service Life Design in routine bridge design.
3. Identification of one or more bridge projects, in current design or recently completed, to be evaluated or redesigned using Service Life Design concepts.
4. Organizational support to provide or develop life-cycle cost information for common bridge elements.
5. Participation in Guide evaluation activities, including an organizational assessment conducted by an independent consultant for FHWA.
6. Willingness to share knowledge with other DOTs interested in implementing Service Life Design in their bridge programs, including reporting on the lessons learned from implementing the Guide.
7. Willingness to participate in regional or national knowledge sharing events to promote the Guide and Service Life Design.

# SHRP2 Implementation Assistance Program

Round 4 Application Form - *Application period closes June 27, 2014.*

## Service Life Design for Bridges (R19A)

**FHWA Product Lead Name:** Matthew DeMarco, [Matthew.DeMarco@dot.gov](mailto:Matthew.DeMarco@dot.gov), 720-963-3520

This SHRP2 Solution is part of Round 4 of the Implementation Assistance Program. For more information about this product or about applying for implementation assistance, visit the Implementation Assistance Program page (<http://www.fhwa.dot.gov/GoSHRP2/ImplementationAssistance>) or this product's application page (where this form originated) on the GoSHRP2 website.

### Point of Contact:

The SHRP2 Implementation Assistance Program is designed to foster peer learning, and as a result, applicants are encouraged to share their experience implementing SHRP2 products with others. By submitting this application, your organization grants permission to FHWA to publish and distribute the name and business email address of a **staff member from the applying organization** who is familiar with the project. Please provide:

POC Name: Provide your response here.

POC Business Email Address: Provide your response here.

### Questions:

1. Describe your organization's interest and goals in implementing Service Life Design concepts and practices in bridge design and asset management programs. (What do you hope to gain? Is there a specific issue you hope to resolve? How do you define success?)

Provide your response here.

2. Briefly describe the organization's experience, if any, with using Service Life Design concepts and approaches to extending bridge element service life performance.

Provide your response here.

3. Describe how your organization's bridge and asset management programs currently work together, and how implementing Service Life Design practices may improve the life-cycle management of new and existing bridge structures.

Provide your response here.

4. Briefly describe demonstrated executive-level support for adopting Service Life Design practices within DOT bridge and asset management programs.

Provide your response here.

5. Describe your plan for implementing Service Life Design, as presented in the R19A Service Life Design Guide for Bridges, including the activities and resources – direct funding amount and/or technical support – needed to adopt these technologies into routine practice.

Provide your response here.

6. Describe any challenges you expect to encounter in implementing and adopting these Service Life Design practices, and how you plan to address these challenges.

Provide your response here.

7. Describe how you envision integrating Service Life Design within bridge inspection, transportation asset management, and maintenance programs.

Provide your response here.

As a reminder:

1. Review all background information located on this product's application page.
2. Once you have completed this form and secured the required Leadership Endorsement Letter, return to application page and complete the contact information fields.
3. Upload this form and the Leadership Endorsement Letter to the page. **Be sure you are attaching the form to the correct application page.**
4. Click "Submit;" you will receive an email confirmation that includes the uploaded endorsement letter and application form.
5. Application period will close June 27, 2014.

For more information or to find this product's application page, visit the Implementation Assistance Program page (<http://www.fhwa.dot.gov/GoSHRP2/ImplementationAssistance>) on the GoSHRP2 website.