

# CRC Infrastructure Sub-Committee

## Project Identification Template and Instructions

### Mobile County Bridge Safety

### Bridge Replacement / Scour Protection

#### **Project Identification Template**

**Instructions:** Please complete all of the information requested with the best information you have available. Limited attachments are acceptable if necessary to adequately describe the project but the **total length should be limited to 6 pages** one-sided (including attachments). This Identification Template is intended as a preliminary mechanism by which proposals and projects to improve the resiliency of Coastal Alabama are solicited and captured with some consistency of format, scope definition, and project benefits and impact. **This is only a first step: proposals and projects will not be funded based upon this submittal. Further information and details will be solicited at such time as the screening and funding process is more fully defined.**

Responses should be received by November 26, 2010, to be included in the appendix the Coastal Recovery Commission Report to the Governor to be submitted December 15, 2010. Submittals after that date will be accepted for consideration but will not be included in the Project Appendix.

Completed Templates may be submitted:

- Electronically (.pdf preferred) to: [crcalabama.templateresponse.com](http://crcalabama.templateresponse.com).
- By US mail to: Coastal Recovery Commission.

P.O. Box 881, Mobile, AL 36601-0881

#### **I. What – Project Information/Basic Facts**

1. Project Scope \_\_\_\_\_ Replace all bridges in unincorporated Mobile County that are posted with weight restrictions and/or those bridges which have timber components. Further, armor abutment and intermediate pile bents of the remaining bridges which are vulnerable to scour.
2. Project duration or schedule by phase and status of any work in progress \_\_\_\_\_ The bridges for replacement and those requiring scour protection have been identified.

2.1. Conceptual and Feasibility Planning, Engineering, Construction It is estimated it will require 18 months of engineering and approximately 3 ½ years of construction to complete all of this work.

3. Estimated Cost (plus or minus 30%) \$34,000,000

3.1. Indicate level of confidence in accuracy of these estimates 75%

## II. Why - Project Description relative to Impact and Criteria

1. Identify what need, threat or opportunity that this project, study, or recommendation will address Replacing weight restricted bridges will allow for safe passage of emergency response vehicles and First Responders during times of emergency. Currently, there are several areas of the County which are not accessible, or accessibly only by long detours, for emergency response vehicles. Replacement of these weight restricted structures will allow for rapid, safe, and efficient emergency response when necessary. Further, the time to collect, transport, and dispose of debris following a storm event will be greatly reduced allowing for a more rapid storm recovery County wide. Armoring the abutments and intermediate pile bents of those bridges not requiring replacement will protect the foundations of those bridges from scour resulting from high floodwaters. Scour is the erosion around the supporting structures of a bridge which can be difficult to discover even after floodwaters recede. Severe scour can lead to damage to the entire bridge structure and even collapse of the bridge. Armoring generally consists of placing rip-rap (large stones) around the bridge abutments and intermediate pile bents to prevent fast moving water from eroding (scour) the supporting earth in and around the bridge's supporting foundation.

2. How does this project or recommendation address and impact the recommended evaluation criteria:

2.1.1. Coastal Recovery Replacing these aging structures will allow for large unincorporated areas of the County to be utilized for economic development which is currently restricted due to restricted access. The potential for economic development corridors throughout the County expands significantly.

2.1.2. Resiliency Replacing weight restricted bridges throughout the County will allow for emergency response to all of the citizens of the County creating an overall more resilient region. Armoring the foundations of the remaining bridges will make them much more resilient to the effects of scour caused by fast moving floodwater.

2.1.3. Transformational This project will link several areas throughout the County providing a more reliable infrastructure network for daily commuters, school buses, and emergency response vehicles. This will result in better connectivity throughout the County and potentially lower insurance rates for area residents. Replacing these bridges will also open up corridors for economic development which are currently not available due to this inadequate infrastructure.

2.1.4. Regionalism Improving the County's infrastructure will allow for improved connectivity throughout the entire County. Providing unrestricted access for school buses and emergency response vehicles will greatly improve the quality of life for all the residents affected as well as visitors traveling throughout the County.

2.1.5. Economic Diversification Completing this project will improve the quality of life for many residents throughout the County, but it will also open up corridors for economic development. Large areas of the County are currently unavailable for economic development due to access restrictions forced by structurally deficient bridges. Replacing the bridges lifts these restrictions and makes those lands available for development. This has the potential for creating jobs and expansion of the tax base.

3. Project Economics This estimated cost for replacing the structural bridges and armoring the remaining bridges is \$34,000,000.

4. Identify Direct Project benefits to Coastal Alabama, including avoided costs, consequence of "No Build" alternative. This project will directly impact Mobile County and surrounding region by providing a reliable infrastructure system for school bus, emergency response, and general vehicular traffic. Funding the replacement of numerous bridges without any other assistance will take upwards of twenty years. This will render many residents of the County with no, or at best, limited access to emergency response vehicles, school buses, etc. for many years to come. The potential for economic development throughout the County will also be limited to the availability of a structurally safe infrastructure. If the structurally deficient bridges are not replaced, there is no chance for these potential economic corridors to develop. Armoring the remaining bridges protects against catastrophic failure of our otherwise structurally sound bridges and avoids significant repair or even replacement costs. In either case, failure of critical bridge structures results in isolation of residents, loss of connectivity, expensive repair and replacement costs, and an overall economic blow to the County and Region.

4.1. Impact on employment, job training and development, both short term and permanent  
There will be an immediate impact of construction jobs which will extend through the anticipated three year duration of construction. In addition, the potential for economic development along these improved corridors can result in numerous new businesses and employment opportunities.

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4.2. Oil spill mitigation outside of claims process \_\_\_\_ A structurally sound infrastructure will allow for better response to emergencies. The negative financial impact of the oil spill has reduced the County's tax revenue further limiting the County's ability to fund a project of this magnitude.

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5. Identify Indirect benefits and costs

5.1. Collateral Benefits to the objectives of Healthy Environment, Healthy Economy and Healthy Society (subjective responses allowed) \_\_\_\_ The collateral benefits include improved safety, reduced long-term maintenance and repair costs, improved driver confidence, opening up potential economic development corridors, improved County-wide school bus efficiency, improved County-wide emergency response, and overall connectivity of Mobile County.

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5.2. Collateral Costs or impacts to the objectives of Healthy Environment, Healthy Economy and Healthy Society ( subjective responses allowed) \_\_\_\_ There will be an impact to affected residents by detours during the duration of replacing the structurally deficient bridges. However, managing the detour routing and replacing the bridge with pre-prepared plans and funding will be more efficient than closing the bridge unexpectedly for an unknown duration due to lack of funding.

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5.3. Connectivity and Linkage to other projects or initiatives: Does this project complement or compete with other projects? What other projects would be precluded if this project is funded? \_\_\_\_ Many of the bridges are located on local County roads which link to evacuation routes, major and minor arterials, and principle arterials serving the Region. Replacing failing bridges and armoring the foundations of otherwise structurally adequate bridges will maintain the critical linkages that make up the overall transportation network.

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### III. Who/How – General Information

1. Name and contact information for Entity, Collaboration or Person submitting project or recommendation nomination. Joe Ruffer, P.E., Mobile County Engineer, Mobile County Public Works, Mobile County Commission, 205 Government Street, Mobile, AL 36644-1600 (251) 574-8595 phone, (251) 574-4722 fax, jruffer@mobilecounty.net

*1.1. Entities and communities sharing a common threat or need are encouraged to collaborate for a joint/combined project submittal to raise the profile of the issue and solution to be addressed. Also please indicate the level of community support or resistance and hurdles to collaboration. This project is supported by the Mobile County Commission, City of Mobile, and local residents.*

2. Identify Sponsoring Entity for oversight and accountability if different from above.

2.1. Existing or to be created? Existing

2.1.1. If to be created, what parties or interests must be involved and what level of effort is required to do so? Not Applicable

2.2. Describe governance, organizational capacity, availability of skills, experience of sponsoring entity to implement the Project The Mobile County Commission, operating through the Mobile County Public Works Department will be responsible for the maintenance of the project following construction and acceptance. The Mobile County Commission has the financial capability, expertise, and support personnel to maintain the project to function as designed. The facilities will be maintained for continuous use by the public. The Mobile County Commission will budget the necessary funds to maintain and make repairs as required.

2.3. Project complexity: Hurdles and barriers to project implementation, completion and sustainability. Identify regulatory issues. Environmental permits may be required for some bridge replacements, especially if new road and bridge alignments are necessary if the existing structure cannot be taken out of service until the new bridge is completed. Construction projects of this magnitude may cause for some inconvenience to motorists during construction.

3. Identify any known or anticipated administrative, regulatory, or legislative action that would be required at either the local, state, or federal governmental level. Not Applicable

4. Requested funding from Coastal Recovery Fund (CRF) \$34,000,000

5. Identified potential funding sources other than the CRF None at this time.
- 5.1. Leverage or multiplier on CRF investment: matching funds, public or private None
- 5.2. Public Private Opportunities, user fees, Federal funds, private foundation grants, bonding capacity, etc. None at this time.
6. Forecast of ongoing maintenance or operating costs and source of funding if not self sustaining Maintenance costs to the County will actually be reduced as the new bridge structures will require less repairs than the existing, aging structures.