

## Emergency Relief Project Delivery Best Practices

The Emergency Relief (ER) program has existed since 1956 to address repairs needed to highways as a result of external events. In addition, Congress has, on several occasions, provided supplemental appropriations to meet emergency repair needs that exceeded the authorized levels of the ER program. Further, a number of internal and external reviews have been conducted to evaluate the program due to the level of funding committed to address emergency repairs. The experience that FHWA and States have gained as well as findings of reviews has resulted in a number of steps that have been put in practice to improve the administration and delivery of the program. Although there will be opportunities for further improvements, the FHWA is confident that the current program is administered and delivered effectively.

The following provides some examples of best practices that are in place today that have improved the effectiveness of the administration and delivery of the program.

- **Maximize Competitive Bidding Practices** – Competitive bidding can be waived to provide quick responses to emergencies particularly when public safety is at risk and roadways are closed. In these situations States often will use sole source or force contracting methods which could be more costly than competitive bidding. If not closely monitored, sole source/force contracts could extend beyond the time frame when quick response is needed. To avoid this problem, Division Offices closely limit the timeframe that sole source or force contracting is used to ensure that competitive bidding contracting practices are used for more permanent repair work.
- **Bundling Multiple Locations into One Project** – Many States bundle repair needs in multiple locations with similar work types into one contract. This practice saves the agency costs on advertisement, mobilization, and materials (due to larger quantities) and often provides for increased competition in the bidding process. In addition, the use of “bundled” contracts has expedited the time to conduct repairs and has reduced conflicts that could exist between multiple contractors are working side-by-side if bundling practices were not used.
- **Use of Innovation** – FHWA has been advancing a number of innovative practices that accelerate and improve design and construction delivery. These practices, many of which are promoted through the EDC program, are often used on ER projects. Examples include soil/slope stabilization techniques and accelerated bridge construction technologies.
- **Design Modifications** – Many States have considered repair strategies that may not fully replace the damaged facility to prior conditions if a more practical design is warranted for the project location (e.g. use of reduced shoulder widths). Design modifications may also consider alternative strategies that are not considered a betterment but provide greater resilience to external factors.
- **Construction Manager/General Contractor (CMGC)** - This approach allows the State to bring on a Construction Manager during the design phase of the project to have them provide input on the constructability of the design. The State then negotiates and executes a contract with the Construction Manager to construct the project as a General Contractor.

- **Administrative Efficiencies** – Many States have used electronic systems to conduct damage estimates and track project development. In addition, standardized design templates and contract documents are used by agencies to address damages that are more typical.
- **Emergency Relief Programmatic Agreements** – Several States have established agreements between permitting agencies, FHWA, and the State DOT to establish environmental classifications for different types of emergency work and wetland credits available for non-jurisdictional impacts. The agreement typically determines up front the type of environmental documentation needed to carry out emergency work. The use of this best practice has streamlined the environmental and wetland mitigation process minimizing the State administrative burden and expediting project delivery.
- **Limit Equipment Reimbursements** – Emergency repair work often requires a contractor to be working 24/7. The cost of the equipment they use to carry out the repairs is typically reimbursed to the contractor based on hours of use where the rate is based on typical use over a month (176 hours per month) and not 24/7 work. For this reason it is possible that a contractor could be reimbursed well beyond their ownership/rental cost for the equipment (after 176 hours of work has occurred). FHWA Division Offices work with States to make sure their specifications for emergency work limits the level of equipment reimbursement to only cover the real cost borne by the contractor to own or rent the equipment.
- **Efficient Use of Materials** – Many practices used by States to address emergency repairs are carried out to accelerate project delivery to minimize impacts to the travelling public. One such practice is the use of materials on nearby projects that are readily available and put to use immediately to address the emergency repair. One example of this application on an Interstate project resulted in a reduction of 10 weeks in the time to deliver the project.
- **Conduct Routine Audits on Larger Projects** – As is done with all Federal-aid high risk and/or large projects, FHWA provides a greater level of oversight of project delivery as the project is underway. These practices have allowed Division Offices to identify and resolve issues to minimize impacts to project costs.
- **Putting Recovered Funds to Work Quickly** – Any ER funds remaining on a project after work is completed are de-obligated and sent back to HQ so the funds can be reallocated to meet other existing emergency repair needs. Improvements have been made to our financial management systems and Divisions Offices have put an increased focus on tracking when funds can be de-obligated. These practices have improved FHWA's ability to put the available funding to good use as quickly as possible.

The practices that have been put in place, as discussed through the illustrative examples above, have improved the utility of ER funds in addressing emergency needs in a timely and cost effective manner. It is expected that the continued use of these practices will help with the cost-effective delivery of the past and future ER allocations.