

EMERGENCY RELIEF MANUAL
(Federal-Aid Highways)
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Chapter I

Introduction

A. Purpose of Manual

This manual is an “interim update” of the emergency relief (ER) manual that was published in September of 1998. It provides updated guidance and instructions on the Federal Highway Administration’s (FHWA) emergency relief (ER) program. This manual provides information for FHWA, State, and local transportation agency personnel on policies and procedures for requesting, obtaining and administering ER funds. This “interim update” manual replaces the *Emergency Relief Manual, Publication Number FHWA-PD-98-054*, published in September 1998.

The manual covers only those criteria and procedures applicable to the ER program for Federal-aid highways, these being public highways other than those functionally classified as local roads or rural minor collectors. Procedures relating to the ER program for roads on Federal lands that are not Federal-aid highways are outlined in *Advance Copy, Emergency Relief for Federally Owned Roads Disaster Assistance Manual, Publication Number FHWA\FLP98\005*. Copies of this manual can be obtained from the Federal Lands Highway Office, HFPD-5, 400 Seventh Street SW, Washington DC 20590. Damage to highway facilities that are neither Federal-aid highways nor roads on Federal lands may be eligible for other Federal funds authorized by the Stafford Act, P. L. 93-288, administered by the Federal Emergency Management Agency (FEMA). The FEMA publication, *Public Assistance Guide, October 1999*, presents a brief overview of their programs. Copies of this guide may be obtained from the FEMA publications center by calling 1(800) 480-2520, or by searching under “Public Assistance Guide” at www.fema.gov. An electronic version of this Manual may be accessed at www.fhwa.dot.gov/programadmin/publicat.htm.

B. Program Overview

Congress authorized in Title 23, United States Code, Section 125, a special program from the Highway Trust Fund for the repair or reconstruction of Federal-aid highways and roads on Federal lands which have suffered serious damage as a result of (1) natural disasters or (2)

catastrophic failures from an external cause. This program, commonly referred to as the emergency relief or ER program, supplements the commitment of resources by States, their political subdivisions, or other Federal agencies to help pay for unusually heavy expenses resulting from extraordinary conditions.

Examples of natural disasters include floods, hurricanes, earthquakes, tornadoes, tidal waves, severe storms, or landslides. A catastrophic failure is defined as the sudden and complete failure of a major element or segment of the highway system that causes a disastrous impact on transportation services. The failure must be catastrophic in nature. Additionally, in order to be eligible for ER, the cause of the failure must be determined to be external to the facility. Both conditions must be satisfied. A bridge suddenly collapsing after being struck by a barge is an example of a catastrophic failure.

ER funds are not intended to cover all damage repair costs nor interim emergency repairs costs that will necessarily restore the facility to predisaster conditions. State and local highway agencies must expect additional expenditures, changes in project priorities, and some inconvenience to traffic as a result of emergency conditions. State and local governments are responsible for planning and providing for extraordinary conditions. Economic hardship is not a factor in determining repair eligibility. Although there is no nationwide definitive monetary break point between what is considered routine and extraordinary repair expenses the FHWA has determined that eligible ER repair activities in a State in the range of \$700,000 (Federal share) or more are usually significant enough to justify approval of ER funds.

By law, the FHWA can provide up to \$100 million in ER funding to a State, or to Federal agencies, for each natural disaster or catastrophic failure event that is found eligible for funding under the ER program (commonly referred to as the \$100 million per State cap). Because of the limited amount of money authorized annually for the ER program and the likelihood that a number of states will experience ER events, funding for large events is likely to be provided over a two (or more) year time period. Also, the total ER obligation for US Territories (American Samoa, Commonwealth of Northern Mariana Islands, Guam, and Virgin Islands) is limited to \$20 million in any fiscal year. For a large disaster that exceeds the \$100 million per State cap, Congress may pass special legislation lifting the cap for that disaster.

The ER funds are available for permanent repairs and for work accomplished more than 180 days after an event at the pro rata Federal-aid share that would normally apply to the Federal-aid facility damaged. For Interstate highways, the Federal share is 90 percent. For all other highways, the Federal share is 80 percent. The Federal share can increase in States with high percentages of Federally owned public lands (known as “sliding scale rates”). *Emergency repair work to restore essential traffic, minimize the extent of damage, or protect the remaining facilities, accomplished in the first 180 days after the occurrence of the disaster, may be reimbursed at 100 percent Federal share.* During this 180-day period, permanent repair work is reimbursed at normal pro rata share unless permanent repair is performed as an incidental part of emergency repair work.

The applicability of the ER program to a natural disaster is based on the extent and intensity of the disaster. Damage to highways must be severe, occur over a wide area, and result in unusually high expenses to the highway agency. The ER program also applies to catastrophic failures (sudden and complete failures due to an external cause) and which result in a disastrous impact on transportation services and unusually high expenses to the highway agency. Failures due to an inherent flaw in the facility itself do not qualify for ER assistance.

For natural disasters, Federal interagency coordination is handled through an interagency agreement between the FEMA and 11 other Federal agencies with hazard mitigation responsibilities. Hazard mitigation teams are activated immediately following a disaster. The FEMA's publication "*Flood Hazard Mitigation Handbook of Common Practices*" documents the appropriate activity.

In general, the FHWA Division Administrator must evaluate a Damage Survey Summary Report, discussed in Chapter V, and make a finding that a disaster is eligible within the intent of the law and applicable regulations before ER funds can be made available. A limited amount of funding may be made available under the "Quick Release" method outlined in Chapter III. The role and responsibilities of the FHWA in ER activities under Sections 120 and 125, 23 U.S.C. are:

1. Administration of the ER program through coordination and implementation of disaster relief policies and procedures.
2. Assistance to State, Federal, or other highway agencies in seeking application for funds.
3. Technical assistance to the State, Federal, or other highway agencies in the review, design, repair, and reconstruction of damaged highway facilities.

Chapter II

Eligibility of Damage Repair Work

A. GENERAL

Roadways and bridges that are on a Federal-aid highway and that are damaged as a direct result of an approved natural disaster or catastrophic failure are eligible for ER funds. As a general rule, items that are eligible for participation as a part of a regular Federal-aid improvement project under Title 23 may be eligible under the ER program. Normally, eligible work must be within the right-of-way limits of the damaged Federal-aid highway facility. A minimum \$5,000 in repair cost per site (refer to page 20) should be used to determine if the extent of repair work at a site is beyond the scope of heavy maintenance. 23 CFR Subpart 668A includes a \$700,000 (Federal share) disaster eligibility threshold to distinguish between heavy maintenance or routine emergency repair and serious damage eligible under the ER program.

The ER program provides for repair and restoration of highway facilities to predisaster conditions. Restoration in kind is therefore the predominate type of repair expected to be accomplished with ER funds. ER funds are not intended to replace other Federal-aid, State, or local funds for new construction to increase capacity, correct non-disaster related deficiencies, or otherwise improve highway facilities.

Added protective features, such as the relocation or rebuilding of roadways at higher elevation or lengthening or raising bridges, and added facilities not existing prior to the natural disaster or catastrophic failure, such as additional lanes, upgraded surfacing, or structures are commonly referred to as a betterment. Betterments are not generally eligible for ER funding unless justified. The eligibility of betterments is discussed in more detail later in this chapter.

All repair work falls under two major categories, namely emergency repairs and permanent repairs. Emergency repairs are those repairs during and immediately following a disaster to restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities. These repairs can begin immediately following a disaster, and prior FHWA approval is not required. Properly documented costs will later be reimbursed once the FHWA Division Administrator makes a finding that the disaster is eligible for ER funding (refer to page 38).

Permanent repairs are those repairs undertaken (usually after emergency repairs have been completed) to restore the highway to its predisaster condition. Permanent repairs must have prior FHWA approval and authorization unless done as part of the emergency repairs.

It is important to understand the difference in the Federal share for these two categories of repairs. For emergency repairs, the Federal share is 100 percent for repair work done to restore essential traffic, to minimize the extent of damage or to protect the remaining facilities within the first 180 days after the occurrence of the disaster. On the other hand, for permanent repairs, the Federal share depends on the type of Federal-aid highway being repaired. For Interstate highways, the Federal share is 90 percent. For all other Federal-aid highways, the Federal share is 80 percent. The Federal share may be increased in States with a high percentage of Federally owned public lands. A more detailed discussion of emergency versus permanent repair follows later in this chapter. Regardless of whether the work is considered emergency repairs or permanent repairs, the Federal share is 100 percent for work done on roads on Federal lands.

B. ELIGIBLE ITEMS

Generally, all elements of the highway within its cross section damaged as a direct result of a disaster are eligible for repair under the ER program. This includes, but is not limited to, elements such as pavement, shoulders, slopes and embankments, guard rail, signs and traffic control devices, bridges, culverts, cribbing or other bank control features, bike and pedestrian path, fencing, and retaining walls.

The intent of the ER program is to fund repairs to damaged roadways caused by a natural disaster or catastrophic failure, not repairs to roadways damaged as a result of preexisting and non-disaster related, i.e., inherent deficient conditions. The following is a more detailed discussion of eligibility for various highway elements:

1. Engineering and Right-of-Way

Preliminary engineering, right-of-way, and construction engineering directly attributable to repair of eligible damage are eligible for ER reimbursement. Reasonable construction engineering costs are eligible. Maintenance, administration, and overhead costs of State or local governments and of other Federal agencies are not eligible. Costs such as a general overall assessment of damage, general supervision, contract administration other than construction engineering, and project planning and scheduling are considered administrative costs that are not eligible because they relate to the overall responsibilities of an agency to manage and operate a highway system rather than to the design and construction of an individual repair project.

2. Detours

Temporary connections should be constructed consistent with anticipated volume and type of essential traffic, reasonable speeds, safety, term of use, and costs. However, ER funding

does not necessarily extend to restoring pre-disaster levels of service until completion of permanent repairs.

Where a temporary structure or an alternate existing route is not reasonable or practical as a temporary connection, construction of a temporary ferry service (ferryboat, ferry operation and maintenance, docking and loading facilities) is eligible for ER funds. ER participation in the ferryboat is limited to acquisition costs, less resale value, or to a reasonable rental fee.

Repair of surface damage to a designated detour caused by traffic that has been detoured from a damaged or impassable Federal-aid highway is eligible for ER funds. This may include roadway surface repairs to provide reasonable traffic service during the period of time the detour is in use as well as surface repairs to the detour route to restore the detour route to predisaster condition after detour traffic has been removed. A documented survey of the condition of the proposed designated detour route prior to detouring traffic on it should be helpful in determining the scope of restoration work to pre disaster condition. A designated detour, which also could be a non-Federal-aid highway, is defined as the officially signed detour that highway officials have established to reroute traffic around the damaged or impassable portion of Federal-aid highway.

3. Traffic Damage

In general, repair of roadway surfaces due to traffic damages, even if damage is aggravated by saturated subgrade conditions, or by inundation of the roadway, is not eligible for ER funds. There are three exceptions. ER funds may participate in repair of surface damage to:

- a. Any public roads - caused by vehicles making repairs to Federal-aid highways,
- b. Any public roads - caused by traffic using the officially designated detour around a damaged Federal-aid highway, and
- c. Any Federal-aid highways - caused by vehicles responding to a disaster.

Normally, ER participation will be limited to surface damage that has occurred during the first two months after a disaster event, a reasonable period during which the majority of all emergency response should occur. Examples of response activities include vehicles involved in repairing other transportation facilities, constructing emergency dikes or performing emergency repairs to dikes, providing essential services such as fire fighting and providing supplies, or removing debris from both public and private property. In exceptional cases, ER participation may be extended to damage occurring up to 6 months after a disaster.

Identifying surface damage caused by response vehicles can be difficult. In some cases, to aid in the decision, an operational pavement management system might provide data that would confirm the roadway condition prior to the disaster. In most cases, an analysis based on best professional engineering will be needed. This analysis should use other appropriate information on the predisaster condition of the roadway surface and the special circumstances

and vehicle use that caused the damage. Consequently, FHWA Division office personnel should field-visit all sites involved in this eligibility category and provide a written report of observed conditions.

4. Overlays

Where entire sections of roadways are damaged and need to be reconstructed, new surfacing is eligible. In addition, where several intermittent but close-by sites need to have the surfacing repaired, resurfacing of the entire section between and including the sites is eligible.

Overlays of roadways that, even though submerged during the flooding, have suffered no significant damage as a direct result of the flooding, are not eligible.

5. Raising Grades

a. Traditional Flooding

Temporary work to raise roadway grades to maintain essential traffic service during the flooding is eligible. This is limited to fill material and minimum riprap to protect the temporary fill plus temporary surfacing material. If such roadways have otherwise suffered no significant damage as a direct result of the flood, work to provide a permanent higher grade, e.g., re-compact fill, provide permanent surfacing, provide drainage, guardrail, signing, etc., is not eligible.

Where roadways have been severely damaged and substantial lengths need to be permanently reconstructed, raising the roadway grade as a part of the permanent reconstruction project to avoid future flooding problems could be eligible, on a case-by-case basis, if determined to be a cost-effective betterment. Again, raising the grade of roadways that, even though submerged during the flooding, have suffered no significant damage as a direct result of the flooding, is not eligible.

b. Basin Flooding

A basin is a large depression in the land with no natural drainage outlet such that the water level decreases only due to infiltration or evaporation.

ER funding is available to raise the grades of critical Federal-aid highways faced with long-term loss of use due to an unprecedented rise in basin water level when basin flooding is considered a natural disaster for the purpose of the ER program, and if the corrective work is restorative rather than preventive in nature.

Basin flooding is considered an eligible disaster under the ER program if it can be shown that:

- (i) The work must be restorative rather than preventive. A restorative situation exists if damage was not anticipated, and the flooding is long-term, effectively rendering the roadway useless for an extended period of time.
- (ii) There has been an unprecedented rise in the basin water level, both in terms of the magnitude of the increase and the time frame in which this increase occurred. To document the unprecedented rise, the State should provide information showing that the water elevation in the basin has reached historically high levels. Further, it should provide information that the rise in the water level occurred during a short period of time such that the rate of increase was much greater than previously experienced. Support information could include, for example, historic water level elevation and rainfall intensity records. If these are not available for the basin, more empirical evidence, such as State and/or local maintenance reports or other information that provides some historical perspective on events and water levels within the basin, could be used.
- (iii) There is severe damage that results in long-term loss of use of critical Federal-aid routes.

To document the long-term loss, information should be provided concerning the length of time highway facilities have been closed to traffic and are projected to remain closed to traffic based on the basin water level elevations that have and/or are projected to occur. In the case of major arterials still in service which the State determines must remain open, documentation on long-term loss of use will have to be based on the potential for this loss to occur should anticipated basin water levels be reached. Since the ER program is not of a preventative nature but only provides funding after a disaster has occurred, extreme care is needed in evaluating situations involving potential loss of use to ensure the integrity of the ER program is maintained.

Only those routes that are critical to restoring traffic service are eligible for grade raises. Factors to take into account in evaluating whether individual routes are critical could include functional classification, provision of essential community services such as access for school, ambulance, fire, and mail vehicles, availability of alternate routes, length of detours etc. The FHWA Division office in cooperation with the State, will jointly determine those critical Federal-aid routes eligible for grade raises.

Basin flooding is handled as a separate disaster under the ER program. Generally, each basin will be evaluated individually based on the water level rise that has occurred within that basin, and the above criteria must be satisfied for that basin before ER funding will be considered. However, special cases may arise where several basins in close proximity, all of which are affecting the same critical Federal-aid routes, may be treated as one event for the purposes of an ER finding that a disaster has occurred.

The beginning date for incurring ER eligible costs for a basin flooding disaster is not as clear-cut as the typical ER disaster. Basin flooding may represent the culmination of several

meteorological events that have caused excessive run-off into the basin and have occurred over an extended period of time. For a typical ER eligible disaster, a State's letter of intent for a basin flooding disaster will serve as the beginning date of ER eligibility for that disaster. If a Division office believes that use of another beginning date requested by the State can be justified, the damage survey summary report accompanying a State's request for ER funding for a basin flooding disaster must present their recommendation and rationale as to an alternate beginning date, with appropriate available supporting information. In an effort to provide some consistency on this matter, Headquarters must be consulted for use of an alternate date other than the letter of intent date for a basin flooding disaster.

The Federal share for ER funding provided for basin flooding should be determined in a manner similar to other ER disasters. For a basin flooding disaster, costs to restore essential highway traffic, minimize the extent of damage, or protect the remaining facilities, which are incurred in the first 180 days, starting with the date of the letter of intent for the disaster, receive 100 percent Federal share reimbursement. Permanent repairs accomplished as an incidental part of this initial effort to restore essential highway traffic may also receive 100 percent Federal share reimbursement. Other permanent restoration costs and all costs incurred after the first 180 days are reimbursed at normal pro-rata share.

For eligible basin flooding disasters, ER funding will generally be limited to grade raises of highways and bridges. However, if within the basin, Federal-aid routes have concurrently suffered traditional ER eligible damage, such as culvert washouts or embankment failures, repair of this traditional damage need not be handled as a separate ER disaster but may be included as incidental to the basin flooding disaster.

Although basin flooding is considered as an ER disaster, it is expected that ER requests be limited to those truly unusual events that meet the criteria outlined above. It is not the intent of the ER program to raise the grades in dips or other low-spots along Federal-aid routes that suffer chronic undulation flooding problems. Rather, these latter situations should more appropriately be corrected using regular Federal-aid funding sources.

6. Slides

The removal of rock and mud slides is eligible. Such a slide must either be associated with the overall natural disaster or by itself qualify to be a natural disaster. In both cases, its correction to provide a safe roadway is eligible. If found cost-effective, ER funds can be used to stabilize slide areas to protect a highway facility from future disaster damage (see further discussion of betterments at the end of this chapter). Such stabilization is considered to be an ER-eligible betterment. Also, relocation of the road rather than slide correction is an eligible betterment if found to be cost-effective.

7. Work on Active Construction Projects

Most States require the contractor to take all necessary precautions to protect Federal-aid projects from damage, including ER-funded projects still under construction or practically completed, but not yet accepted by the State. Before considering an ER project for rehabilitation/repair work on an active construction project, it must clearly be established that such rehabilitation/repair work is not, in fact, the responsibility of the contractor.

8. Toll Facilities

ER funds may participate in repair of Federal-aid highway toll facilities when the provisions of Section 129 of Title 23, U.S.C. are met. If an existing toll facility route does not have an executed toll agreement with the FHWA at the time of the disaster, a toll agreement may be executed after the disaster to qualify the facility for repairs. Loss of toll revenue is not eligible for reimbursement.

9. Traffic Control Devices

ER funds can participate in the cost of the repair or replacement of traffic control devices including traffic signal systems, directional and informational signs, and railroad-highway crossing warning devices, if the damage and associated repair or replacement costs can be shown to exceed heavy maintenance.

10. Landscaping

Replacement of damaged highway landscaping is eligible only if it represents incidental cost associated with otherwise eligible damage.

11. Roadside Appurtenances

The repair or necessary replacement of damaged or destroyed guardrail, bridge rail, impact attenuators, right-of-way fences, etc., is eligible if such damage is extensive and not limited to a few isolated cases under each category.

12. Timber and Debris Removal

The cost of stockpiling and disposing of debris at adjacent sites, as well as those costs of removing marketable timber from the acceptable clearing limits and transporting to adjacent stockpile sites, is eligible for ER participation. However, hauling costs to sawmills or to other locations beyond the general proximity of the damaged highway are not eligible. The clearing limits for debris, including downed timber, normally, should include the traveled way, cut and fill slopes and any additional clearing required to assure the full functioning of the pavement, drainage ditches, and structures, including the clear zone for safety. Clearing of the remainder of the full right-of-way is the responsibility of the agency having jurisdiction. Cut sections should

be cleared to the safe distance that will assure that no debris will cause roadway slope erosion or will roll down to clog ditches or endanger traffic on the pavements and shoulders. The timber and debris removal operations should conform to the standards of safety for that particular route.

In the case of normal medians, the necessary cleanup of downed timber and debris is eligible. Where directional roadways or “divided highways” are widely separated because of terrain or for aesthetic reasons, the cleanup of the entire median would not be eligible. Each directional roadway should be treated as a separate roadway, including cut and fill slopes, and handled as described in the above paragraph.

Snow and ice removal are not eligible as debris removal.

13. Transportation System Management (TSM) Strategies

TSM strategies to monitor and control traffic, and to manage transportation on streets and highways during and immediately following a disaster to restore traffic are eligible for ER funding. The elements of the TSM plan may include highway advisory radio, closed circuit television, video image process surveillance, installation of changeable message signs, a public awareness program, etc.

ER funds are eligible to provide emergency traffic management services by the police during and immediately following a disaster under the following conditions: Such traffic services by the police must 1) directly relate to the disaster; and 2) represent added costs above and beyond costs related to normal, day-to-day responsibilities, i.e., overtime costs or additional shift costs. The added costs should be itemized and documented to support any use of ER funds for this activity.

14. Projects & Project Features Resulting from the NEPA Process

An ER repair project developed in accordance with the National Environmental Policy Act (NEPA) process may incorporate added features to mitigate environmental impacts to such resources or sites as wetlands, noise-sensitive land uses, endangered species, etc. These added mitigation features, by themselves, are not considered “betterments” for the purposes of the ER program since they do not protect the highway from future disasters or change the function or character of the highway facility from what existed prior to the disaster or catastrophic failure. This is illustrated by the following example:

Environmental Mitigation Feature Eligible for ER Funding

In repairing a damaged bridge, some of the construction activity will take place in or closely adjacent to the existing stream bed. This particular stream serves as the spawning grounds for an endangered species of fish. The contractor would be required to use special construction techniques that minimize disruption of the streambed, and special pooling areas for the fish will need to be built in the stream adjacent to the bridge. The

special construction techniques and the added stream features are necessary mitigation measures to implement the repair project, and they would be eligible for ER funding.

Eligibility determinations for environmental mitigation measures can apply a general rule-of-thumb: if the mitigation measure is related to an ER-eligible betterment, the mitigation measure is also eligible. For example, if a roadway grade raise to protect a facility from future flooding has been economically justified for ER funding, then a mitigation feature associated with the grade raise, such as possible wetland restoration, would qualify for ER funding. Conversely, if a “betterment” is not justified for ER funding, then any added mitigation features related to the betterment would likewise not be eligible for ER funding but instead should be funded from regular apportioned Federal-aid highway funds.

For ER replacement projects, the NEPA decision process can also determine project location, potentially including a completely new location. Further, the mere fact that something old is being replaced with something new, or that the new facility is built to current design standards, does not restrict ER funding. In general, if it has been determined that ER funding may fully participate in the replacement project (see the various scenarios discussed on page 31), and if the replacement project is of comparable function and character to what existed prior to the disaster or catastrophic failure, then ER funding may fully participate in the replacement project.

As noted, the NEPA process may well determine the location of the replacement project. In the case where it is neither practical nor feasible to replace a destroyed facility in-kind at its existing location, the alternative facility developed in conformance with the NEPA process is eligible for ER funding, as illustrated by this example:

Replacement Facility on New Location Eligible for ER Funding

A roadway was permanently submerged by water backing up behind a naturally created dam, and replacement of the inundated highway facility at its existing location is neither practical nor feasible. Through the NEPA process, various alternative locations for a replacement facility were evaluated. A recommended alternative emerged from the process. This recommended alternative was of comparable function and character to the damaged facility (i.e., same number of lanes, same degree of access control), and, accordingly, was eligible for ER funding.

The NEPA process may also require that a replacement project include additional project features to mitigate impacts of the project. These added mitigation features are eligible for ER funding if the replacement project itself is eligible for ER funding. An example follows:

Environmental Mitigation Feature Added to Replacement Facility Eligible for ER Funding

A replacement facility was predicted to result in increased noise impacts on adjacent

residential property, and the NEPA noise impact evaluation determined that noise walls must be included in the final project. Although the damaged facility did not have existing noise walls, this added feature, as an environmental commitment, became an integral part of the replacement project in compliance with NEPA and FHWA's Title 23 highway noise impact assessment and mitigation requirements. Further, since a noise wall would not protect the highway from future disaster damage or change the function or character of the highway facility, it did not have to be justified as a "betterment" under the ER program. As a result, this noise wall was eligible for ER funding.

The above discussion on replacement facilities and use of ER funding, in general, reflects those situations where ER funding is not capped. However, if replacement facilities are being advanced where ER funding participation is capped (see the first and third replacement scenarios on page 31), this same limit on ER funding would apply to the proposed replacement facility including any environmental mitigation features required as a result of developing the replacement facility in accordance with NEPA.

15. Outside of The Highway Right-of-Way

Generally, damage repair activities outside the highway-right-of-way are not eligible for ER funding. The exception would be work associated with stream channels adjacent to a highway. Normally, projects associated with channel work (riprap, bank protection, etc.) that require right-of-way purchases and/or easements outside the right-of-way are not eligible. The fact that the agency responsible for channel maintenance does not have funds to finance the repair and protection work is not an acceptable justification for ER fund assistance. In situations involving requests for participation in erosion control and bank protection outside the highway-right-of-way, the following items must be verified by the highway agency to obtain eligibility:

- The work is directly related to protection of the highway facility;
- The work is not eligible for funds from another agency;
- No other agency has the responsibility for such work;
- The applicant agrees to accept the future maintenance of all work performed.

When work of this type is proposed, the project documents should include a letter from the State agency showing how all of the above four items have been or will be satisfied.

16. Administrative Expenses

a. Regular and Extra Employees

Regular salaries and overtime salaries and wages of all regular and extra employees of the applicant directly engaged in the performance of work on ER projects are eligible for reimbursement. Timekeeping procedures should facilitate allocating employees' time to projects, and/or other activities, each day on an hourly basis. A timekeeping document, such as time slip, time and attendance report, or time book, must be available for examination by audit

personnel to support direct labor costs claimed on any ER project. A responsible employee having knowledge that the time distribution is accurately reported should sign the document.

b. Payroll Additives

Usually referred to as labor surcharge, a set percentage over and above the total direct labor costs charged to a project is eligible for ER participation. This surcharge covers costs of various types of leave allowances, industrial accident insurance coverage, and other employee benefits. The allowable percentage rates will normally vary from year to year. Also, employee benefits allowed by one applicant may differ widely from those allowed by another. Therefore, the records used in developing percentage rates should be preserved under suitable control conditions to assure availability for examination when requested. The acceptable percentage rate may be applied only to direct labor costs.

17. Supplies and Materials

Engineering and general office supplies of an expendable nature, charged from stock or purchased for a particular project, and properly identified on the stock-issue slip or vendor's invoice with the project charged, are considered eligible for participation. In the case of issues from stock, verifiable evidence to assure validity of the prices charged must be available for examination if requested. Many classes of materials required for ER projects are purchased for a particular project. In such cases, the costs are eligible for participation, provided the project on which the materials are used is properly identified on the supplier's invoice. The cost of materials issued from stock warehouses or agency-produced or purchased stockpiles for use on an ER project must be properly supported. The records supporting the prices charged should be available for audit when requested. Also, a responsible employee having knowledge that the supplies or materials have actually been incorporated into the project should sign the source document (stock issue slip or supplier's invoice).

18. Equipment

The use of applicant-owned equipment or equipment owned by, and rented from, another public entity, or rented equipment from commercial sources, which is necessary for the prosecution of work properly authorized under an ER project, is eligible for participation. Such use should be charged on a per hour, per shift, per mile, etc., basis. The rental cost of such equipment may include such items as normal operation (gasoline, fuel oil, lubricants, antifreeze, etc.); repair (major and minor), etc.; and depreciation or replacement expenses. Costs in excess of normal depreciation to cover the increased costs of replacement equipment are to be excluded from equipment rental rates applied to ER projects. The rates per unit for applicant-owned equipment must be properly supported by verifiable analyses covering specific sizes and types of equipment charged. Lacking such documented cost analyses by the applicant, ER funds will participate in the equipment rental costs on the basis of rates developed by the State DOT and approved by the Division Administrator. Each applicant should use either the FHWA approved State DOT rates or its own established rates, but not a combination of both. The required

document action to support equipment rental charges is an acceptable time and equipment use report, signed by a responsible employee signifying actual use of the equipment on the project designated.

Reasonable costs of equipment rented from commercial sources for use on ER projects are eligible for ER participation. The extent of “reasonableness” will be determined by the Division Administrator as consistent with the current edition of the *Associated Equipment Distributors Manual* or rates charged by a recognized rental agency. A commercial invoice, signed by a responsible employee signifying actual use of the equipment on the project designated, is required documentation to support equipment rental charges. The supporting document must indicate the period of use applicable to an identified ER project. The applicant may also claim operating costs provided that the rental costs do not include operating cost. Equipment “move in” and “move out” costs may also be considered eligible.

C. INELIGIBLE ITEMS

ER funds are not intended for all damage repair costs. Only that repair work which exceeds heavy maintenance, is extraordinary, and will restore predisaster service is eligible. A more detailed discussion of repair activities that are not eligible for ER funds follows.

1. Heavy Maintenance

When a disaster has caused damage requiring heavy maintenance or work frequently performed by the applicant’s maintenance crews, repairs are not eligible. Heavy maintenance is usually performed by highway agencies to repair damage normally expected from seasonal and occasionally unusual natural conditions or occurrences. It includes work at a site required as a direct result of a disaster that can reasonably be accommodated by a State or local road authority’s maintenance, emergency, or contingency program. Examples include work necessary to repair minor damage due to eroded shoulders, filled ditches and culverts, pavement settlement, mud and debris deposits, slope sloughing, and slip-outs in cut or fill slopes.

It is not the intent of the ER program to relieve an agency of its maintenance responsibility simply because a storm of unusual character and extent causes serious damage to roads and to public and private property.

2. Damage Estimate under \$5,000 per Site

A minimum \$5,000 in repair cost per site is used as a guideline for a site to be ER eligible. This minimum guideline dollar value is suggested for national consistency but, if circumstances warrant and the State has requested a different figure, the Division Administrator may allow a different minimum amount. This dollar threshold criterion is used to distinguish repairs that are maintenance activities from an ER program responsibility. Generally, a site is an individual location where damage has occurred. However, a site could include several adjoining locations where similar damage, related to the same cause, has occurred. For example, where

flooding waters in a drainage course that runs along or continually crosses under a highway has caused damage at several locations within a reasonable distance of each other, it would be acceptable to package these together as a single site. Another exception could involve damage to traffic signs which has occurred at several locations on an area wide basis. In this case it would be acceptable to group these locations by route or jurisdiction, with the accumulated amount considered a site. Overall, aggregating locations together to form a site should be done with care, bearing in mind that the intent of the ER program is not to pay for highway damage repairs that a transportation agency would normally perform as heavy maintenance.

3. Traffic Damage

Repair of surface damage caused by traffic, whether or not the damage was aggravated by saturated subgrade or inundation, except as noted under Eligible Item B3 above, is not eligible for ER funds.

4. Frost Heaving

Damage to roadway subbase and base materials due to inundation or freezing and resultant frost heaves, even if the roadbed has been saturated by the floodwaters, is not eligible for repair with ER funds.

5. Applicant-Owned Material

Replenishment or replacement of destroyed or damaged stockpiles of materials for both maintenance and construction that have not been incorporated into the highway is not eligible under the ER program. Repair of damage to or replacement of an applicant's or contractor's facilities, such as maintenance sheds or equipment, is not eligible for ER funds, for example:

The applicant is in the process of widening a bridge as a maintenance betterment project

Precast concrete beams have been delivered to the job site but have not been incorporated into the structure. Rapid runoff of floodwaters destroys the existing bridge and the precast beams. Cost of repair of the existing bridge is eligible. However, since the precast beams were not a part of the existing bridge at the time of its destruction, cost of replacing the stockpiled beams is not eligible.

6. Erosion Damage

Repair of minor erosion damage due primarily or wholly to rainfall and resulting from surface saturation of slopes and embankments, rather than from floodwaters, is not eligible. Even though the work may be a little more extensive than usual, it is considered heavy maintenance.

7. Prior Scheduled Work

Permanent repair or replacement of deficient bridges scheduled for replacement with other funds damaged during a disaster is not eligible for ER funds, and should be funded as originally intended. The ER funds may participate in emergency repairs to restore essential traffic in such cases. A project is considered scheduled if the construction phase of a replacement structure is included in the FHWA approved Statewide Transportation Improvement Program (STIP).

8. Mine/Underground Subsidence

Where a highway passes over an underground mine and a section of highway is closed down due to actual mine subsidence, repair work on the section of highway exhibiting physical damage due to subsidence is eligible for ER funding. However, repair work to prevent additional physical damage to adjacent sections of the highway over the mine is not eligible. Further, in situations where in-bed stream mining is found to be contributing to erosion (where a highway passes over or is adjacent to the stream), associated repair work is considered ineligible.

9. Snow and/or Ice Removal

Snow and/or ice removal is not eligible for ER funding as snow and/or ice is viewed as a relatively short term event not causing physical damage to a highway. Although ER funds may not be used for snow removal, the FEMA may allow funding available through its assistance program to pay for a limited amount of snow clearance on Federal-aid highways during extreme snowfalls.

10. Emergency/Medical Transportation Services

Emergency medical transportation services, such as ambulances or helicopters, are not eligible for ER funding.

11. Mitigation /Preventive Work Prior to Disaster

Preventive work to avoid damage to a highway facility in anticipation of a disaster is not eligible for ER funding. For example, work to prevent scour at bridge sites in anticipation of extremely high rainfall and potential flooding is not eligible for ER funding.

12. Catastrophic Failure from Internal Cause

Not all catastrophic failures are ER eligible. An ER eligible catastrophic failure must be a sudden failure of a major element, or segment of the highway, due to an external cause. ER funds do not apply to catastrophic failures from an internal cause or source, e.g., gradual and progressive deterioration or lack of proper maintenance. Closure of a facility because of imminent danger of collapse is not, in itself, a sudden failure and therefore is not eligible for ER funding.

D. EMERGENCY REPAIRS VS. PERMANENT REPAIRS

Both emergency repairs and permanent repairs are eligible for ER funds. Emergency repairs are repairs made during and immediately following a disaster to restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities. Permanent repairs are repairs undertaken, normally after emergency repairs have been completed, to restore the highway to its predisaster condition. It is important to distinguish between emergency and permanent repairs because emergency repairs accomplished during the first 180 days after the occurrence of the disaster are funded at a higher Federal share.

1. Emergency Repairs

a. General

Emergency repairs are repairs made during and immediately following a disaster to restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities. The State and local transportation agencies are empowered to begin emergency repairs immediately. Properly documented costs will later be reimbursed once the FHWA Division Administrator makes a finding that the disaster is eligible for ER funding. Typical examples of emergency repairs are:

- Regrading of roadway surfaces, roadway fills, and embankments
- Debris removal
- Erection and removal of barricades and detour signs, flagging and pilot cars during the emergency period, and placement of riprap around piers and bridge abutments to relieve severe on-going scour action
- Dynamiting and other removal of drift piling up on bridges, including rental of boats
- Placement of riprap on the downstream slopes of approach fills to prevent scour during overtopping of the fill
- Removal of slides
- Construction of temporary roadway connections (detours)
- Erection of temporary detour bridges
- Replacement of approach fills
- Use of ferryboats to provide temporary substitute highway traffic service

Any such work may subsequently be included in an ER program of projects, which, when submitted for approval, should include both emergency repairs and any permanent restoration work performed coincidentally with emergency repairs.

b. Intent of Emergency Repairs

The intent of emergency repairs is to permit the immediate performance of work to restore essential traffic that cannot wait for a finding of eligibility and programming of a project.

Emergency repair work should be accomplished in a manner that will reduce additional work required for permanent repairs.

The Division Administrator's concurrence on the need for emergency work conveyed in the Division's acknowledgment to the State's letter of intent does not authorize the agency to proceed with permanent restoration work on damaged highways unless the restoration is more economical or practical to perform as an associated part of the emergency operation. This incidental restoration can be performed simultaneously with the emergency work provided it is properly covered in the damage inspection report. If such work has been accomplished prior to the site damage review, retroactive approval may be given when circumstances warrant.

There may be situations where immediate completion of the permanent work is the most economical and feasible operation to quickly restore essential traffic. An example would be the washout of a bridge and its approaches with construction of a detour being both costly and time-consuming, but the agency involved having precast concrete girders readily available that could be used at the site. In such a case immediate construction of the permanent structure and approaches could be accomplished at the discretion of the State, and approval by FHWA of the permanent repair would be handled as an emergency repair.

The use of ER funds for emergency repairs to roadways is normally limited to the amount necessary to bring the washed-out fills and slip-outs back to grade with a gravel surface. In most cases these emergency repairs to roadways are not constructed to true line and grade. They usually follow the terrain and are constructed in the easiest and most expedient manner. The repair to the road, nevertheless, should be sufficient to permit traffic to travel over it safely. Where routes handle heavy traffic, an appropriate type of bituminous surface as a temporary repair will be eligible for short sections of roadway.

The placement of the final high-type pavement is normally considered permanent repair. If performed as emergency work, such paving must have FHWA concurrence to be eligible for Federal participation. A determination of whether or not the work should be performed as emergency or permanent should take in to account traffic characteristics, remoteness of the site, traffic control requirements, and socioeconomic factors.

c. Federal Share (180-Day Period)

Emergency repairs accomplished within the first 180 days of the disaster occurrence to restore essential traffic or to minimize the extent of damage or to protect the remaining facilities may be reimbursed at 100 percent Federal share. The 180-day time period for 100 percent Federal share is established by 23 U.S.C. 120(e), and the FHWA has no authority to change the time period. It is important to give careful consideration in deciding the beginning of the 180-day time period. The 180-day time period is intended to start on the initial day of the occurrence. In certain circumstances, emergency repair work to restore essential traffic, to minimize the extent of damage, or to protect the remaining facilities cannot be undertaken on the initial day of the occurrence of the disaster. In such circumstances, the date on which the first emergency

work was undertaken can be accepted as the beginning day of the first 180 days. Regardless, there is only one 180-day period for the entire disaster.

2. Permanent Repairs

a. General

Permanent restoration work is not eligible if performed prior to authorization by the FHWA, unless it is determined to be more economical or practical to perform such work as an associated part of the emergency repairs; documentation of this determination is required. Permanent repairs should be administered using normal Federal-aid contracting procedures although use of streamlined procedures is encouraged (e.g., A + B bidding, reduced advertising period, etc.). Such repairs may involve one or more of the following categories of work.

b. Restoration-in-Kind

The ER program provides for the repair and restoration of highway facilities to predisaster conditions. Restoration in kind is therefore the predominant type of repair accomplished with ER funds. Any additional protective features or changes to the function or character from that of the predisaster facility are generally not eligible for ER funding unless justified on the basis of economy of construction, prevention of future recurring damage, or technical feasibility.

c. Replacement-in-Kind

(i) Existing Location

Where extensive damage has occurred, ER funds may be used for replacement-in-kind as the proper solution. If a facility has been damaged to the extent that restoration to its predisaster condition is not technically or economically feasible, a replacement facility is appropriate. Replacement facilities should be constructed to meet current design standards.

ER participation in a replacement roadway will be limited to the costs of a roadway built to current design standards, and of comparable capacity, (e.g., number of lanes), and character, (e.g., surfacing type, access control, rural/urban section), of the destroyed facility. ER reimbursement for a replacement bridge will be the cost of a new bridge built to current design standards for the type and volume of traffic the bridge will carry during its design life.

ER participation may be prorated. Where the replacement project exceeds ER eligibility limitations, the ER share of project cost would be limited to the estimated cost of the ER eligible replacement roadway or bridge.

(ii) New Location

Where relocation is necessary, each case must be considered carefully to determine what part of the relocation is justified for construction with the participation of ER funds. This matter is discussed further in the sections covering environmental considerations in chapter VI and betterments in this chapter.

d. Deficient Bridges

This category includes structural conditions only. It does not consider waterway opening, functional obsolescence or serviceability, etc. Permanent repair of a structurally deficient damaged bridge is eligible for ER funding provided a replacement bridge is not under construction or the bridge is not scheduled for replacement (in the FHWA approved STIP) with other Federal funds. The intent is to ensure that ER funds do not replace other Federal funds that would have otherwise been used to construct a replacement facility. The following represent two common situations:

(i) Bridge is damaged but is repairable.

ER funds may participate in:

- Reasonable emergency repair to restore travel
- Permanent repair of disaster damage if bridge will be structurally safe upon

completion of disaster damage repair (meaning that repair of disaster damage corrects structural deficiency)

- Permanent repair of disaster damage if other funds are used to simultaneously correct the structural deficiencies (meaning that repair of disaster damage will not correct structural deficiency)
- No permanent repair if bridge is scheduled for replacement

(ii) Bridge is destroyed or repair is not feasible.

ER funds may participate in:

- Reasonable emergency repairs to restore traffic
- New comparable replacement structure to current design standards and to accommodate design-year traffic volume if bridge is not scheduled for replacement
- No permanent repair if bridge is scheduled for replacement in the current FHWA approved STIP or a replacement bridge is under construction.

e. Replacement of Culverts

Upgrading of culverts to current standards must be specifically related to eligible disaster damage repair.

- Damaged culverts are eligible for repair in kind.
- Destroyed culverts are eligible for replacement to current standards.
- Wholesale upgrading of deficient culverts on an area or route basis is not eligible. Eliminating a recurring annual maintenance problem with ER funds, based on the occurrence of a disaster, is not normally within the scope of the ER program.

f. Betterments:

Betterments, for the purposes of the ER program, are defined as (i) added protective features, such as the rebuilding of roadways at a higher elevation or the lengthening of bridges, or (ii) changes which modify the function or character of a highway facility from what existed prior to the disaster or catastrophic failure, such as additional lanes or added access control.

(i) Betterments Involving Added Protective Features:

This category of betterments involves adding features to highway facilities that help protect these facilities from possible future damage from ER-eligible disasters or catastrophic failures. Examples include:

- Raising roadway grades
 - Relocating roadways to higher ground or away from slide prone areas
 - Stabilizing slide areas
 - Stabilizing slopes
 - Installing riprap
 - Lengthening or raising bridges to increase waterway openings
 - Deepening channels
 - Increasing the size or number of drainage structures
 - Replacing culverts with bridges
 - Installing seismic retrofits on bridges
-
- Adding scour protection at bridges
 - Adding spur dikes

If a betterment involving an added protective feature is included in an ER repair project, the betterment may be considered eligible for ER funding if it can be economically justified based on an analysis of its cost versus projected savings in costs to the ER program should future ER-eligible disasters occur within the normal design year for the basic repair work. This cost/benefit analysis focuses solely on benefits resulting from estimated savings in future recurring repair costs under the ER program. The analysis does not include other factors typically included in highway benefit/cost evaluations, such as traffic delays costs, added user costs, motorist safety, economic impacts, etc.

The following example illustrates this type of betterment and the economic analysis that would be applied in determining whether the betterment would be eligible for ER funding.

Added Feature Justified for ER Funding

Floodwaters have damaged a 1,400-foot section of roadway with both surfacing and fill material being washed away. The site can be repaired for \$150,000. However, this section of roadway was similarly damaged during an ER event several years ago, and it appears likely to be damaged again in the future. The State proposes to add additional culverts to increase the drainage capacity under the roadway, thus substantially reducing the chances that this type of flooding in the future will damage this section of roadway. Adding these culverts is estimated to increase the cost of the repair project by an additional \$100,000. Spending an additional \$100,000 for the added features could save one or more future ER repair costs that could easily exceed the cost of the added features. In this case, the added features are economically justified because of the potential to save future costs under the ER program, and, consequently, the added features are eligible for ER funding.

In the previous example, the betterment is considered eligible for ER funding. However, in many instances betterments will fail to meet the economic justification test for use of ER funding. If ER funding cannot be provided for a betterment, this does not mean that the betterment should necessarily be excluded from the ER repair project. If a betterment provides

considerable benefit when other factors are considered, the State is encouraged to use regular apportioned Federal-aid highway funds, as appropriate, to fund a betterment. This point can be illustrated by this example:

Added Feature Not Justified for ER Funding

Flooding waters covered a 1,000-foot section of a heavily traveled highway. Traffic must be detoured to other routes, causing extra travel and considerable delays. The highway was unusable for 3 weeks until the floodwaters receded. At that time, it was found that the flooding caused only limited damage to the highway, which can be repaired for \$75,000. However, the extra travel distances and delays during the 3-week period the highway was closed imposed an estimated \$1,100,000 in additional costs on the motorists and community. The State proposed to raise the grade of the highway by 5 feet, thus placing the roadway at an elevation where a similar flood would not inundate the roadway. The estimated cost of raising the grade for this section of highway was \$950,000. Although the cost of the grade raise could easily pay for itself in terms of potential savings in travel and delay costs to the motorists and community should another similar flood occur, the cost is substantially greater than the potential repair costs that would be eligible under the ER program. In this case, the added feature would not be considered to be economically justified for ER funding. Instead, the more appropriate Federal highway funding source would be regular apportioned Federal-aid highway funding.

There are limited situations where added features require no further economic justification as betterments. One situation applies to reasonable grade raises associated with basin flooding. Another involves repairs of features, such as bridges, that may require permits or approvals from other entities. If these other entities routinely require added features as standard industry practice on other projects of similar nature to the ER project, then these added features can be included on the ER project without further justification as betterments.

(ii) Betterments Involving Changes to the Function or Character of the Highway:

This category of betterments involves making changes to the function or character of the facility from what existed prior to the disaster or catastrophic failure. Examples include:

- Adding lanes
- Upgrading surfaces, such as from gravel to paved
- Improving access control
- Adding grade separations
- Changing from rural to urban cross-section

In general, betterments that change the function or character of a facility do not qualify for ER funding. One exception established under 23 U.S.C. 120(e) allows ER funding participation in replacement bridge facilities to accommodate traffic volumes over the design life of the bridge, thus potentially allowing ER funding for added lanes on bridges. This type of betterment, and eligibility of ER funding, is illustrated in the following examples:

Change in Function/Character Eligible for ER Funding

A 2-lane bridge, on a heavily traveled urban route, is destroyed by floodwaters. The State proposes to build a replacement bridge at the same site. The design year traffic (20 year traffic projection) for the bridge shows that a 4-lane facility will be needed to accommodate this future traffic. Accordingly, the State proposes that the new bridge have 4 lanes, a significant improvement in capacity above the destroyed bridge. As a result of the statutory provision in 23 U.S.C. 120(e), the added lanes on the new bridge are eligible for ER funding.

Change in Function/Character Not Eligible for ER Funding

A 2,000-foot section of a 2-lane heavily traveled urban route was seriously damaged by floodwaters. The State proposed that repair of the section include widening to four lanes to accommodate future traffic needs since at some future time the State will need to widen the route anyway. This added capacity is viewed as changing the function and character of the route, and the costs of the additional lanes are not eligible for ER funding. However, since widening the route at the same time the repair work is done may be in the public interest by providing some savings in costs and by avoiding later disruptions to traffic, a State could decide to use its regular apportioned Federal-aid highway funds for the added costs of the extra lanes.

Repair Activities That Are Not Betterments:

The dictionary defines the term betterment as an improvement that adds value. The matter of adding value is subject to wide interpretation. As noted in the previous discussion, for the purposes of the ER program, the term betterment applies specifically to added protective features or changes made to the function or character of the facility. With this in mind, there are certain classes of ER funded repair activities that are not considered betterments.

These are:

- Replacement of older features or facilities with new ones--The mere fact that a damaged highway feature or facility is replaced with something new that may extend the service life of the facility, in and of itself is not a betterment.
- Incorporation of current design standards--Repaired facilities may be built to current design standards, which could result in improved or added features that do not change the function or character of the facility. For example, a repaired length of roadway may have wider lanes or shoulders and additional roadside safety hardware that result from following current design standards. These features are not betterments.
- Replacement in-kind on existing location not practical or feasible -- On rare occasions, it is neither practical nor feasible to replace a damaged highway facility in-kind on its existing location. An alternative selected through the NEPA process, if of comparable

function and character to the destroyed facility, is eligible for ER funding. This is not a betterment. (See the following discussion in this chapter on replacement facilities for more information on this special situation.)

- Additional required features resulting from the NEPA process -- ER projects may include additional required features as an outcome of the project being developed in accordance with the NEPA process. These features are eligible for ER funding. These are not betterments.

Replacement Facilities and Betterments:

Restoration in-kind is the predominant form of repair activity under the ER program. However, at times restoration is not possible, and replacement is necessary, or a State may choose to replace a facility rather than repairing it. The extent of ER participation varies depending on the circumstances involved. Various scenarios are discussed below.

In a first replacement scenario, a highway facility was seriously damaged; however, inspection verified that repair and restoration of the existing facility was possible. However, the State preferred to replace the existing facility with a new or alternative facility. In this case, ER funding limited to the ER program share of the estimated cost to repair the existing facility can be applied to a new or alternative replacement facility. Regular apportioned Federal-aid highway funds may be used to fund project costs above the amount eligible for ER funding.

In a second replacement scenario, a highway facility was seriously damaged, and inspection confirmed that it was not repairable. The State decided to replace the existing facility with an in-kind replacement facility (of comparable function and character to the damaged facility) on the existing location. In this case, ER funding may participate in the total cost of the replacement facility.

In a third replacement scenario, inspections confirmed that a seriously damaged highway was not repairable. Although building a replacement facility at the location of the existing facility was found to be feasible, the State chose to replace the existing facility with a new facility, of comparable function and character, on a new location. In this case, ER funding for the new facility is limited (capped) to the ER program share of the estimated cost to replace the facility in-kind at its existing location. In this scenario, it may be possible to utilize regular apportioned Federal-aid highway funds to fund project costs above the amount eligible for ER funding.

In a fourth replacement scenario, inspection has again confirmed that a seriously damaged highway is not repairable. Additionally, because of the unique circumstances involved, in-kind replacement at the existing location was determined neither practical nor feasible. Consequently, an alternative replacement facility on a new location was developed through the NEPA process. Provided this alternative is of comparable function and character to the destroyed facility, it is eligible for ER funding. This outcome rarely arises under the ER program. In

almost all cases, it is practical or feasible to replace a damaged facility in-kind on its existing location. Casual or offhand application of the practicability and feasibility criteria to support any determination to replace on a new location is not acceptable; rather they must be applied as very rigorous tests.

For the first and third replacement scenarios discussed above, it is possible that the replacement facility proposed by the State could also be viewed as an added protective feature betterment eligible under the ER program. Replacement on a new location to reduce the potential for future disaster damage to the facility is an example. Of course, to be eligible for ER funding, the additional cost of the relocated facility must satisfy the economic justification criteria applied to added protective features. If the relocated replacement facility meets the economic justification criteria, then ER funding is not capped as discussed above but may participate in the cost of the replacement facility. This is illustrated by the following example:

Replacement at New Location Where Repair or Replacement In-Kind is Possible (ER Funding of Betterment)

A three-mile section of a non-Interstate highway in a low-lying coastal area was heavily damaged by high surf and wave action from a storm, the third time in the last 15 years that the highway has been damaged. The latest damage would cost \$2 million to repair. Instead of repairing this section of highway, the State proposed to replace it on a new location further inland at a cost of \$5.5 million, substantially reducing the opportunity for future surf and wave damage. Relocation of the facility is viewed as an added protective feature that needs to be economically justified in terms of the investment of ER funds. For this example, considering the frequency that events have occurred at this location, the added feature (relocation) was considered economically justified under the ER program, and ER funding may participate in 80 percent of the incurred costs of the replacement facility, or \$4.4 million.

Chapter III

Emergency Relief Application Process

The decision to seek ER financial assistance rests with the State. Local highway agencies do not deal with the FHWA directly but must make their application through the State. The State has the option to determine whether it will seek ER funding for repair of either State or local agency owned Federal-aid highways.

The State and local transportation agencies are empowered to begin emergency repairs immediately to restore essential traffic service and to prevent further damage to Federal-aid highway facilities. Properly documented costs will later be reimbursed once the State formally requests ER funding, and the FHWA Division Administrator makes a finding that the disaster is eligible for ER funds.

The three methods for developing and processing a State request for ER funding are described in this chapter. Two of the methods are labeled as "traditional" in that they have been used for several years. The third method, recently used with increasing frequency, employs a process to deliver ER assistance for large disasters very quickly.

A. Method 1. Traditional

1. Preliminary Steps - The Governor issues a formal proclamation of the existence of a disaster. A Presidential declaration, or the Governor's request for this declaration, can serve the same purpose. The State then files a letter of intent to apply for ER funding with the FHWA Division office in the State, and the Division Office acknowledges the letter. These actions are described in Chapter IV.
2. Disaster Assessment - Detailed damage inspections are conducted at many, if not all, sites. This process is described in Chapter V.
3. Formal State Request for ER Funding and Damage Survey Summary Report - The State requests ER funding based on the detailed damage inspections. The State's request, along with the information from the detailed inspections and the FHWA's Division office's recommendations, are submitted for a finding by the FHWA Division Administrator. This process is described in Chapter IV.
4. Length of Time to Develop Application - Typically, the above steps would be accomplished over a 6 to 10-week period.
5. Division Administrator's Finding - For events approved for ER funding, the Division Administrator issues a letter to the head of the State transportation agency notifying the

State transportation agency of the approval. Concurrently, FHWA Division requests the FHWA Headquarters Office of Program Administration, by e-mail to allocate ER funds. The e-mail must be sent to the Office of Program Administration (HIPA-1) official mailbox with a copy to the ER Program Manager. The request, as a minimum, must include date of approval and brief description of the event, estimated cost of damage repair and the Federal share, the ER obligation need for the current fiscal year, list of counties, and the congressional district numbers. Additional ER funding will be made available to the State as needs arise. The Division Administrator will notify the State transportation agency of any events that are denied ER funding.

B. Method 2. Traditional (Expedited)

1. Preliminary Steps - Same as Method 1.
2. Disaster Assessment - For the purposes of an ER application, damage assessments are based on a windshield inspection at a sampling of sites as described in Chapter V. At least one site is visited in each county involved in the event. Windshield surveys are used under this method to expedite the process.
3. Formal State Request for ER Funding and Damage Survey Summary Report - Similar to Method 1 except the request and Damage Survey Summary Report are based on the windshield inspections.
4. Length of Time to Develop Application - Typically, the above steps would be accomplished over a 2 to 3-week period.
5. Division Administrator's Finding - Same as Method 1, with the exception that the request for funding should be conservative, recognizing the limited information available.
6. Detailed damage inspections of sites – Such inspections are completed at a later date, most likely after the Division Administrator has made a finding of ER eligibility for the event. These detailed damage inspections of sites at a later date aid in eligibility determinations and approval of a program of projects. At this point in time, it is likely that a refined estimate of ER funding need would be provided to FHWA Headquarters to facilitate a more accurate allocation of funds.

C. Method 3. Quick Release

1. Preliminary Steps - Same as Method 1, although the State's letter of intent and request for an ER finding may be combined into a single document.
2. Disaster Assessment - For the purposes of an ER application, few, if any, on-site damage surveys are made. Instead, the disaster assessment is based on other readily available information, such as credible media reports or aerial surveys done by the State.

3. Formal State Request for ER Funding and Damage Survey Summary Report - For the purposes of the ER application, the State requests ER funding based on their preliminary assessment of the extent of damage. The request is done in a brief letter to the Division office. No Damage Survey Summary Report is prepared to accompany the ER application. A sample State letter is provided in Appendix E.

The Division office makes a finding of eligibility of the event based on the readily available reliable information on the extent and severity of the damage. The Office of Program Administration in Headquarters is available for consultation as needed. A request for an initial allocation of ER funds is made to the Office Of Program Administration, usually for a modest amount only intended to start the flow of ER funds to the State for initial emergency repair costs the State is incurring. Supplemental allocations would follow at later dates. The determination of an appropriate initial allocation amount is typically discussed by phone between FHWA Division office staff and staff from FHWA Headquarters who administer the ER program.

The State Highway Authority should prepare and submit an abbreviated Damage Survey Summary Report to the Division Office after most of the detailed damage inspections have been completed. The report can be as simple as a summary of eligible estimated ER costs by county. This report must provide support for supplemental allocations of ER funds for permanent repairs as well as providing a summary of the counties involved in the disaster and an overall estimate of ER eligible repair costs.

4. Length of Time to Develop Application - Typically, the above steps would be accomplished over a 1 to 2-day period.

5. Division Administrator's Finding - Same as Method 1.

6. Detailed damage inspections of sites – Same as Method 2.

7. Additional Considerations - The "quick release" method is not appropriate for all disasters. In general, it is used for larger disasters where extensive damage is readily evident and where there is a desire, both by the Administration and a State, to have ER resources flowing quickly to the State.

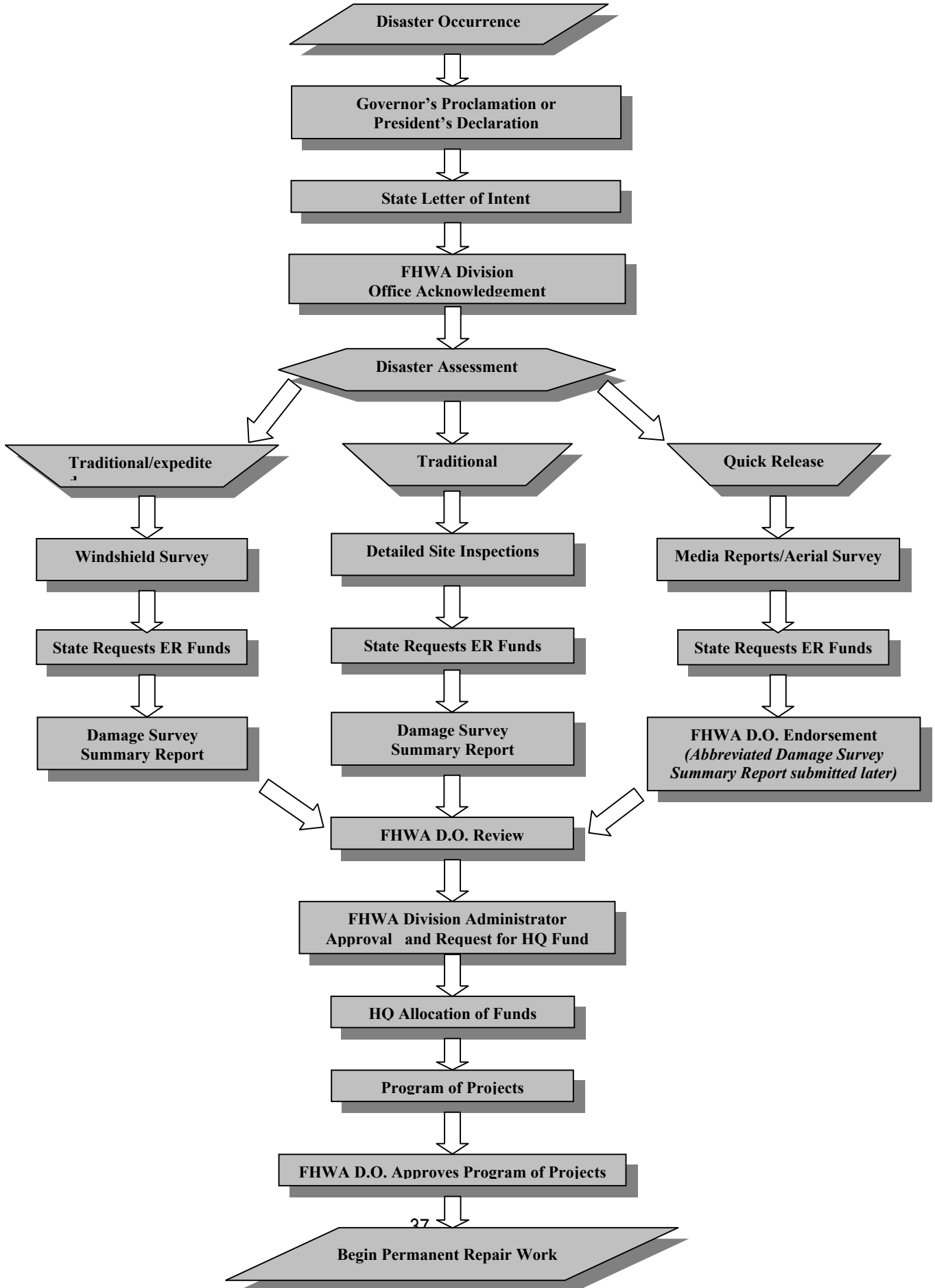
D. Two Disasters Treated as One

Although unusual, disasters can occur so closely in time that the damage to roads and bridges is difficult or impossible to evaluate and tabulate as separate events. Many facilities in the same area may suffer damage from a second disaster before the survey teams have evaluated the damage caused by the earlier event. In these situations, the data supporting the magnitude and extensiveness of the second occurrence should be supported in the regular manner; but the

request submitted should ask that the two disasters be recognized as a single event. This may, of course, not be desirable if one or both disasters are potentially subject to the \$100 million per State cap. In this instance, survey teams should make a “best estimate” of damage to be attributed to each event. Also, it should be noted that where two disasters are treated as one, there is only one 180-day period covering the 100 percent Federal share for the combined event; this period beginning with the occurrence date of the first disaster.

Granting a request to treat two disasters as one will simplify the processing of the necessary repair or reconstruction projects by having a single ER finding for all projects resulting from the two disasters. The Governor’s second proclamation should cover both disasters. However, the supporting data must prove that facilities have suffered severe damage in both disasters and such damage is of sufficient severity to justify ER assistance. Sufficient documentation establishing the existence of separate disasters should assure compliance with the \$100 million per State cap per disaster.

ER PROGRAM FLOW CHART



Chapter IV

Preliminary Steps

A. Letter of Intent

The State files a "letter of intent" with the FHWA division office notifying of its intention to request ER funds. This is usually done as soon as it is evident that there is eligible damage, either during or immediately after the occurrence of the disaster. Filing a letter of intent does not commit the State to any future course of action. The letter of intent is simply a notice that a State plans to seek ER funds and does not need to specify the amount or other details. An example of a typical letter of intent is contained in Appendix A.

B. Acknowledgment Letter

The FHWA Division office acknowledges in writing the State's letter of intent. An example of a typical Division Administrator's reply to the State's letter of intent is contained in Appendix B. The acknowledgment letter to the State should address the following items: acknowledgment of receipt, effective date, emergency operations, preliminary engineering, use of force account, waiver of competitive bidding, guidance for permanent work, time frame and items needed for Damage Survey Summary Report, time limit for programming, payment contingent on approval by the Division Administrator, and record keeping requirements.

The Division Administrator's acknowledgment of the applicant's letter of intent will assure the State that temporary operations, emergency repairs, and preliminary engineering may proceed without prior authorization by the FHWA. However, the eligibility of such work for ER funds will be contingent upon a favorable finding by the Division Administrator on the eligibility of the disaster and subsequent approval/authorization of the work by the FHWA.

C. Governor's Proclamation

This is a formal proclamation by the Governor of the existence of an emergency. An example of a Governor's proclamation is contained in Appendix C.

1. Basic Criteria

When serious damage has occurred or is being caused to Federal-aid highways, the Governor of the State shall issue an official proclamation unless the Governor has requested a major disaster declaration by the President under the Disaster Relief Act (P.L. 93-288). The proclamation should be issued by the Governor during or shortly after the occurrence and should state the gravity of the situation and specify the area affected. In the case of a catastrophic failure, it must be established that a catastrophic failure has occurred, (e.g., a sudden failure of a major element or segment of the highway system that causes a disastrous impact on transportation services) and that the cause was external to the facility.

2. Timing of the Proclamation

Although the Governor's proclamation may be issued during or with reasonable promptness following the event, there is no need from FHWA's standpoint for the proclamation to be issued until a realistic determination has been made as to the area affected. It is desirable to delay preparation of the Governor's proclamation to permit evaluation of the magnitude and extent of the natural disaster, or to evaluate the magnitude of the catastrophic failure, by engineers from the State and FHWA. This procedure should facilitate consistency between the list of counties in the proclamation and those covered by the Damage Survey Summary Report. A copy of the Governor's proclamation shall be obtained for the Division office file.

3. Relationship to President's Declaration

The proclamation by the Governor as required in Title 23 is an entirely separate official action from the declaration issued by the President of the United States. The President's declaration proceeds from the disaster relief authority of P.L. 93-288 and is in response to a request from the Governor. The Governor's request for a determination by the President may be submitted as part of the State's application for ER funds in lieu of a State proclamation. A copy of the Governor's request shall be obtained for the Division office file.

4. Concurrence by the Division Administrator

The FHWA's concurrence in the disaster eligibility is either based on the emergency proclamation by the Governor, or, when the Governor has requested a major disaster declaration by the President and the declaration has not been made, on a review of the State's submission required for the ER application as described in Chapter III. The Division Administrator's concurrence will indicate his/her finding that extraordinary natural disaster conditions did exist, or that a catastrophic failure occurred, and that the disaster is eligible for ER funding assistance under 23 U.S.C. 125.

When the President has issued a major disaster declaration, the Division Administrator need not concur that a disaster occurred, but must nevertheless make a finding, based on a review of the State's submission required for the ER application in Chapter III, that substantial damage has occurred to the Federal-aid highways over a wide area or that the criteria for a catastrophic failure were met and that the damage is eligible under 23 U.S.C. 125.

Chapter V

Disaster Assessment and Damage Survey Summary Report

A. Purpose

For a natural disaster, the disaster assessment is an evaluation of a natural occurrence that affects transportation facilities to determine if the basic conditions exist to support a reasonable request for ER funding. In any natural disaster situation two conditions must be met in order to qualify for ER funding: (1) the natural occurrence is sudden, unusual, and causes serious damage to Federal-aid highways; and (2) the extent of serious damage to Federal-aid highways covers a wide area. The natural occurrence over a wide area must have inflicted unusual heavy economic loss to the State and its subdivisions or other organizations or agencies.

Disaster assessments for catastrophic failures must provide an evaluation of the failure against the basic requirements for ER funding eligibility. The sudden failure of a major element or segment of a Federal-aid highway due to an external cause is defined as catastrophic failure, and the disaster assessment must gather, organize and discuss the necessary data to either support or rule out a catastrophic failure event. The failure must not be primarily attributable to gradual and progressive deterioration, or lack of proper maintenance. The closure of a facility because of imminent danger of collapse is not considered a sudden failure.

B. Logistics/Mobilization

Experience dictates the need for developing a system for documenting damage estimates related to a disaster event and for the preparation of the Division office Field Report. A good procedural method consists of the following elements:

1. Disaster Coordination Engineer

One engineer from the Division Administrator's staff should be selected and delegated the responsibility for coordinating the Division office activities relating to disaster assistance programs. This approach should provide uniformity in administration of all ER program activities.

2. Division Office Orientation

The Division Disaster Coordination Engineer should arrange a training meeting to brief field engineers on resource and procedural requirements necessary to fulfill Division office responsibilities. Eligibility criteria and field reporting procedures should be discussed and review/evaluation teams organized.

The following items should be provided to each FHWA engineer charged with assessment responsibility:

- Transportation agency contact's name
- Emergency Relief Manual
- Camera and film
- Maps of affected areas showing Federal-aid routes
- Calculator and Measuring Tape
- List of unit prices
- Notebook Computer
- Communication equipment including Cellular Phone
- Detailed damage inspection report forms (Appendix D)

3. Resource Evaluation

An initial evaluation of staffing/personnel requirements, equipment, and financial needs should be made. These resources must be adequate for the timely completion of the required disaster assessments and damage surveys. For example, concerning personnel needs, each FHWA Division office should confirm that driver's licenses are current and assess possible immunization requirements.

The disaster assessment should be completed quickly to permit submission of the required information for the ER request within the prescribed time-period. Combining the detailed inspections with the disaster assessment may take longer and cause a late assessment.

C. Coordination with Other Agencies

Most natural disasters involve several Federal, State, and local agencies. It is necessary and often critical to establish immediate contact with these agencies to expedite the ER program. Coordination with the Office of Federal Lands Highway Programs is of particular importance since they maintain close liaison with the U.S. Forest Service, Park Service, Bureau of Indian Affairs, and the Bureau of Land Management regarding damage to Federal roads that may have sustained damage from the same event. Also, coordination with appropriate environmental resource agencies is encouraged. Among other reasons, coordination can avoid embarrassing inconsistencies and inaccurate total damage estimates.

Meetings set up by the State Department of Transportation (DOT) are often advantageous, particularly if they are similar to, or in conjunction with, those held by the FEMA. Since the State DOT makes the request for ER funds, it has the responsibility to arrange these meetings. The FHWA should provide technical assistance at these meetings, as requested.

These meetings should provide briefings of all eligible applicants and personnel who will be involved in ER projects. Participants should include State DOT maintenance forces, key State transportation headquarters and division and/or district office personnel, FHWA field

engineers, administrative people from local governments, and representatives from Federal agencies. Eligibility, field procedures, and Damage Survey Summary reporting procedures should be discussed.

Applicants should be advised of the necessary records and documents that must be available to support expenditures on ER projects. Permanent restoration work must follow normal Federal-aid procedures.

1. Policy

The Federal Government will participate in costs incurred by a State DOT, or a political subdivision of that State, when such costs are properly supported and are directly attributable and properly allocable to ER projects. Needed documentation, as applied to the several categories of cost, is discussed later in this chapter.

2. State Department of Transportation

All requests for reimbursement shall be submitted consistent with procedures followed in billing other types of Federal-aid project costs. Billings for reimbursement will be subject to audit by State and Federal representatives. (Reference *Federal-Aid Policy Guide*, 23 CFR Part 140). A billing for eligible costs incurred by the State DOT should be submitted to the FHWA for reimbursement. A billing for participating costs incurred by a political subdivision of a State should be submitted to the State DOT which, in turn, may submit a billing for such costs to the FHWA for reimbursement. Final billing should be submitted promptly after the final inspection of the completed work. Progress billings are reimbursed on permanent repair projects. All billings should result from the project cost records and the accounting system. In order to obtain maximum reimbursement from the Federal Government, any political subdivision expecting to incur ER project costs should obtain guidance in the preparation and maintenance of supporting documentation as well as in billing procedures from officials of the State DOT. Source documents are to be preserved for a period of at least 3 years after payment of the final voucher by the FHWA.

D. Damage Assessments

The State, in cooperation with FHWA field staff and in coordination with local authorities, undertakes damage assessments. Typically, this involves on-the-ground visits to the damage sites to verify the extent of damage and to estimate the cost of repairs eligible for ER funding. If there is a need to expedite the delivery of ER funding for high-cost disasters, an initial damage assessment may be based on aerial fly-overs, news telecasts, and other means of quickly estimating the extent of damage. This initial damage assessment is followed-up later with more detailed site inspections.

As discussed in Chapter III, the damage assessments are conducted using one of three different methods, with the choice of method depending upon the urgency for developing and

processing a State's request for ER funding for a disaster or catastrophic failure eligible under the FHWA ER program. They are: the detailed damage inspections which normally document site-by-site estimates; the windshield inspections which normally document estimates for limited number of sites; and the quick release method which normally is based on readily available information such as valid media reports or aerial surveys done by the State.

1. Detailed Damage Inspections

These are inspections conducted on site to determine the extent of damage, scope of repair work, the preliminary estimate of cost of repair, and ER funding eligibility. Detailed damage inspections are conducted at many, if not all, sites. After it becomes apparent that the Division Administrator will recommend a positive determination of natural disaster, disaster inspection teams should be organized. These teams normally document site-by-site repair estimates to develop supporting material for programming purposes. This detailed inspection may be accomplished in conjunction with the disaster assessment if it does not delay submission of the Damage Survey Summary Report.

The on-site inspection provides an important opportunity to define clearly the extent of repairs eligible for ER funding. Eligibility determinations under the ER program reside with FHWA.

a. Documentation

The damage inspection report should document:

- The specific location, type of Federal-aid highway, ADT, cause, nature and extent of damage, including mileposts where available
- The most feasible and practical method of repair, particularly if the applicant's proposal does not meet eligibility criteria (See Chapter II)
- Work considered to be emergency or permanent should be identified and documented.
- The estimated repair cost
- Recommendation by the FHWA field engineer
- Acknowledgment by the applicant (and State representative, as appropriate)
- Potential environmental/historical impacts

- Photographs supporting the above
- A location map and field site sketch

A blank detailed damage inspection report is provided in Appendix D.

b. Disaster Inspection Teams

The inspection teams consist of representatives from the FHWA and the applicant. If the applicant is not the State DOT, a State DOT representative should be a member of the inspection team. Specialists (for example, bridge engineers if there is significant bridge damage) from each agency should also accompany the team if the situation warrants. Other specialists in such areas as right-of-way, environmental evaluation, or geo-technical analysis may also be needed, depending on site conditions.

The applicant's representative identifies the cause of damage and the normal design and construction practice to repair the facility. The FHWA field engineer shall consider site eligibility and proposed repair effort to aid in developing an estimate. All sites reviewed by the applicant should be documented with the FHWA eligibility recommendations noted. If all or any of the parties cannot agree on eligibility, the FHWA representative must note all items of disagreement on the inspection report. The applicant may appeal an ineligibility finding that should be submitted in writing to the Division Administrator within 30 days after the initial finding. The FHWA representative should also explain that any ER eligibility or participation disagreements are decided by the FHWA Division Administrator, or, when necessary and appropriate, the FHWA Administrator.

Copies of the inspection report should be provided to applicant and members of the inspection team.

As general practice, FHWA should participate in the damage inspections. However, events with a large number of damage sites and multiple inspection teams in the field at one time may overextend FHWA staff resources.

If an FHWA representative cannot be present on each inspection, the FHWA inspection workload should be ordered by such priority considerations as project cost, scope of work, good agency record keeping and documentation, the jurisdiction whose sites are involved, and the general experience and capabilities of the inspection teams. In addition, other steps that occur during administration of an ER disaster, such as the preparation of a program of projects or final inspections that may be undertaken by the Division office, afford the FHWA some opportunity to further assess eligibility issues.

In view of the ER eligibility issues involved, decisions concerning any site inspections that will not be attended by FHWA must be based on appropriate risk management principles.

2. Windshield Inspections

Where appropriate, windshield surveys are used to expedite the ER application process. These reviews verify the extent and impact of damage immediately following or during a disaster and collect damage information to determine disaster eligibility for ER funding. Damage assessments are based on a windshield inspection at a sampling of sites as described below, but at least one eligible site must be visited in each county involved in the event.

The State DOT and Federal or State agencies with responsibility for highways under their jurisdiction will have advance information on the initial damage, road closures, and in some cases a very rough estimate of costs to restore facilities. As part of the more general disaster assessment, FHWA field engineers will be assigned to verify extent and severity of damage to highways and bridges.

In certain circumstances where time permits and the number of sites can be adequately sampled, ER assessments may coincide with assessments required by FEMA. Concurrence by FEMA should be obtained in advance.

a. Scope of Review

An independent verification by FHWA is required. Depending on the time available, amount of damage, how widespread the damage is, and accessibility, FHWA field engineers must review as much of the identified or reported damage as possible. As noted above, at least one eligible site in each county recommended for ER funding should be verified. This verification will assure the Division Administrator that no jurisdiction will be promised funds where not eligible and that the most critical needs are approved at the earliest practical time. For an obvious situation, such as a massive bridge collapse, these conditions may be immediately met. For a marginal condition, many weeks of verification may be necessary. The Division Disaster Coordination Engineer should be responsible for prescribing to the FHWA field engineers the format and extent of information necessary to prepare the Damage Survey Summary Report and to support the Division's recommendations.

b. Record-keeping

As a minimum, the Division's file should contain information on the extent of and methods used to evaluate the disaster and copies of the FHWA field engineer's assessments on damage and estimates of cost.

c. Supplemental Information

Types and sources of other information and data that should be considered if available:

- Damage reports from other agencies supported by photographs or field verification by FHWA personnel
- Newspaper articles
- Photos, including aerial photos
- U.S. Weather Bureau data
- U.S. Geological Survey information
- Reports from others, e.g., flood control agencies, cities, public utilities, Corps of Engineers, etc.
- Interviews with local citizens
- Contact with FEMA where a Presidential declaration is involved.

Detailed damage inspections of sites are completed at a later date, likely after the Division Administrator has made a finding of eligibility for the event. These detailed damage inspections of sites at a later date aid in eligibility determinations and approval of a program of projects.

3. Damage Assessments for Quick Release

Quick Release damage assessments are based on readily available information such as valid media reports or aerial surveys done by the State. Detailed damage site inspections are conducted at a later date, most likely after the Division Administrator has made a finding of eligibility for the event.

E. Damage Survey Summary Report

The FHWA Division office assists the State Transportation agency in preparing a Damage Survey Summary Report based on the State's assessments. The Damage Survey Summary Report provides the Division Administrator with a basis to make a finding that the disaster is eligible for funding under FHWA ER program.

1. Purpose

The purpose of the Damage Survey Summary Report is to summarize the damage assessment and provide information and documentation for the FHWA Division Administrator to make a finding that a natural disaster or catastrophic failure has occurred within the intent of 23 U.S.C. 125. The report describes the general nature and extent of the resulting emergency situation and delineates the limits of serious damage to Federal-aid highway facilities. The sudden and unusual nature of the disaster should be documented and evidence of external cause should be included for a catastrophic failure.

A long-term problem, e.g., a very slow moving slide or subsidence or a slow lake rise, is considered outside the scope of a "disaster", since necessary work is more accurately categorized as preventive rather than repair. Serious damage for purposes of supporting a finding of ER applicability is heavy, major, or unusual damage to the highway that severely impairs the safety

or usefulness of the highway or results in road closure. Serious damage requires more than normal heavy maintenance to repair. Examples of serious damage include destroyed bridges, damaged bridges incapable of supporting traffic, loss of traffic control devices causing severe disruption, or major slides and slip-outs extending into the traveled way. Applications for ER funds in amounts less than \$700,000 must include a statement explaining why the damage repair involved is beyond the scope of heavy maintenance or routine emergency repair. Generally, widespread nominal road damages in this range are not considered significant and therefore do not justify approval by the FHWA Division Administrator for ER funding.

2. Damage Survey Summary Report Preparation/Content

The Damage Survey Summary Report should include:

- a. A description of the type and extent of damages and the estimated cost of restoration or reconstruction by Federal-aid routes for each county. In addition, the Division should provide the Federal share of the estimated cost of repair work and determine the amount of ER funds needed for repairs during the current fiscal year.
- b. A description of the limits of the areas involved, the nature and characteristics of the disaster or catastrophe including the dates of occurrence. This information will differentiate between ordinary and extraordinary natural disturbances, except when the President has declared that a major disaster exists over the area involved.
- c. Photos showing the extent of serious damages sustained in the areas being recommended. At least one photo showing eligible damage should be included for each affected county.

3. Damage Survey Summary Report Submission

The Damage Survey Summary Report and supporting documents shall be submitted to FHWA Division Office.

4. Summary of Other Required Documents

If not previously submitted, the following documents must accompany the Damage Survey Summary Report :

- Governor's Proclamation, or a copy of the Governor's official request for a Presidential disaster declaration
- A copy of the State's written request for ER funds

5. Exception

Formal preparation of a Damage Survey Summary Report is not required when requesting ER funds using Method 3 - Quick Release, as described in Chapter III. For the purposes of the ER application, the State requests ER funding based on their preliminary assessment of the extent of damage via a brief letter to the FHWA Division Office. No Damage Survey Summary Report is prepared to accompany the ER application. The Division Administrator will then make a determination of eligibility of the disaster for ER funding. However, the Division Office should coordinate with the FHWA Headquarters ER Program Engineer prior to the eligibility determination. Refer to the topic Quick Release under Chapter 3. An abbreviated Damage Survey Summary Report should be prepared and submitted to FHWA Division Office upon completion of a sufficient number of detailed damage inspections to demonstrate that an eligible disaster event has occurred. A Damage Survey Summary Report is still needed to meet the requirements of preparing a program of projects for final approval by the Division Administrator.

CHAPTER VI

PROJECT PROCEDURES AND REQUIREMENTS

A. General

Once the FHWA Division Administrator has made a finding that emergency or catastrophic conditions justify ER funding, the State should submit promptly a program of projects for repair of damage to the Federal-aid highways. Projects should be individually justified. If sufficient information is available when the Damage Survey Summary Report is submitted, the first program of ER projects may be incorporated into the Damage Survey Summary Report itself, or it may accompany that report, even though a finding has not yet been made. In any case, the program of projects should be submitted within three months after the disaster finding by the FHWA Division Administrator.

A program of projects is to be submitted to the FHWA Division office regardless of the Division office's role in project oversight on Federal-aid projects.

B. Fund Management

After the FHWA Division Administrator makes an affirmative finding on a State's request for ER, the Division requests an allocation of ER funds from the FHWA Headquarters Office of Program Administration. The initial allocation, generally based on the amount of anticipated obligations for the current fiscal year, could be less than the amount requested depending on the availability of ER funds. Headquarters allocates additional ER funds on an as-needed basis upon request by the Division Office, provided funds are available.

Near the end of each fiscal year (about September 15), FHWA Headquarters will coordinate with Division Offices to identify unobligated balances of ER funds that will not be needed through the end of the following fiscal year. Such funds will be withdrawn for allocation to States in need of ER funding. At the beginning of the following fiscal year, ER allocations are made, to the extent possible, to cover any backlog of need for the entire fiscal year based on the estimates submitted by the Division Offices. This practice is intended to avoid accumulating a large balance of allocated but unobligated ER funds and helps manage available funds nationwide as effectively as possible.

C. Federal Share

The Federal share for the repair of Federal-aid highways is established by law. It varies depending on the nature of repairs, when the work is accomplished, and the Federal-aid route being repaired.

For the costs associated with restoring essential traffic, minimizing the extent of damage, or protecting the remaining facility which are incurred in the first 180 days after the occurrence of the disaster, the Federal share is 100 percent.

For the costs of permanent restoration work, and the costs of all repairs incurred after the first 180 days, the Federal share is based on the type Federal-aid highway that is being repaired. For Interstate highways, the Federal share is 90 percent. For all other Federal-aid highways, the Federal share is 80 percent. The Federal share can be increased based on the “Sliding Scale” rates in States with high percentage of Federally owned public lands. The Federal share is 100 percent for all work done on roads on Federal lands.

D. Preparation and Submission of Programs

A program of ER projects should be prepared by the State. The program of projects should:

- Indicate the natural disaster or catastrophic failure and the time of its occurrence.
- Relate the damage to that described in the damage assessment reports prepared and/or detailed damage inspections.
- Describe proposed permanent repairs or replacements on a site-by-site basis (although sites may be lumped by route and county for program purposes).
- Include supporting material indicating the suitability and economy of upgrades or betterments including relocation proposed for participation with ER funds. For some projects it will be necessary to complete additional design work in order to develop justification for added protective features. When betterments are contemplated, the State or local agency should contact the Division Administrator so that further project development is accomplished with FHWA involvement.
- Identify emergency repairs.

E. Approval of Programs and Project Authorizations

The Division Administrators have authority to approve programs of projects that are located on the Federal-aid highways.

Temporary operations including emergency repairs, and preliminary engineering, including consultant work, may proceed without prior authorization. This work need not be authorized retroactively; however, the need for such work must subsequently be approved by the FHWA as part of a program of projects. Permanent restoration work shall not be performed prior to FHWA authorization unless performed as part of emergency repair.

F. Advancing Projects During ER Program Funding Shortages

When ER funds are not available for allocation to the States to cover either additional

funding needs on previously approved ER events or funding needs for new disaster requests awaiting action by the Division Administrator, ER funding requests received in Headquarters are recorded and held by the Office of Program Administration pending action by Congress to replenish the ER accounts through a supplemental appropriation.

Recognizing that quick congressional action is not always possible, the following options could be used to fund or advance ER projects on an interim basis.

1. Previously Approved ER Events

For an event that the Division Administrator has previously found eligible for ER funding, requests to fund additional work for that event could be handled under one, or some combination, of the following:

a. Option 1 - Use of Unobligated ER Funds From Other ER Events In The State

This option could be available to a State that has several on-going ER-funded events. Although ER funds are allocated to a State based on funding requests for a specific event, using unobligated ER funds from a previously approved event to respond to ER needs on another approved event is usually acceptable unless the ER funding source is limited by law to a specific event. For the most part, ER funding sources are available for any ER event. For example at the time of this Manual's 2003 update, ER funding identified by appropriation codes 098, 09G, 09L, 09N, 09Q, 09T, 09X, and 09V could be used on any approved ER event.

It should be noted that Headquarters does not track the amount of ER funding used on a specific event through the fund allocation process. Instead, regardless of the funding source, ER funds used on a specific event are tracked through obligations entered in the Fiscal Management Information System (FMIS) using an appropriate disaster code assigned to the event by FHWA's Office of Program Administration. Disaster codes are discussed further below.

b. Option 2 - Use of Regular Federal-aid Highway Funds

Regular Federal-aid highway funds, appropriate for the type of Federal-aid highway (National Highway System [NHS] or Surface Transportation Program [STP]), can be used. Regular Federal-aid funds must comply with the obligation limitation in effect for that class of funds used. The Federal share would be that appropriate for the ER work being authorized. Under this option, the letter of authorization should indicate that the project will be converted to ER funding when ER funding becomes available, at which time the regular Federal-aid funding, and the accompanying obligation limitation, will be released from the project.

This option can be used for both emergency repairs to restore essential traffic as well as permanent repairs. This option has the advantage of allowing immediate Federal reimbursement for costs that are being incurred. Further, it provides a means of securing FHWA authorization

of the permanent repair activities so that they may proceed. A disadvantage is that use of regular Federal-aid funding sources will likely require the use of obligation limitation until the project can be converted to ER funding.

c. Option 3 - Use of Advance Construction (AC)

Although 23 U.S.C. 115 does not contain authority to advance construct ER funds, it does designate several other Federal-aid funding sources that can be used for advance construction. Thus, a project advance constructed under any of the funding sources designated in Section 115 could later be converted using ER funds. For example, an ER type project can be authorized as an advance construction STP project and later converted to an ER project as ER funds become available. An authorization under this option should be made following the general guidance for advance construction of Federal-aid. The letter of authorization should confirm the State's intention to convert the project to ER funds.

This option can be used in those instances needing prior FHWA authorization of permanent repair work. This option has the advantage of providing a means of securing FHWA authorization of the permanent repair activities so that they may proceed. Further, it does not use obligation limitation. However, a State must have adequate funding resources of its own to proceed with the project until it can be converted to ER funding.

2. ER Events Awaiting a Division Administrator Finding

When a potential ER event has occurred, the State is empowered to undertake immediate emergency repairs to restore essential traffic service and to prevent further damage to Federal-aid highway facilities. Properly documented costs will later be reimbursed once the Division Administrator makes a formal finding that the event qualifies for funding under the ER program.

However, if a delay in the Division Administrator's formal finding will likely delay the orderly progression of both temporary and permanent repairs, it might be preferable to proceed with ER activities using Options 2 or 3 above, subject to the following requirements:

- The State's formal request for ER funding, along with an acceptable Damage Survey Summary Report has been submitted to FHWA Division Office. Various methods for developing State requests are discussed in Chapter III.
- Division staff managing the ER program has reviewed the ER request and recommends that it be approved, excepting any questionable or ineligible ER activities.
- FHWA letter of authorization under Options 2 or 3 will stipulate that any use of ER funding on the project is subject to the Division Administrator's formal finding that the event qualifies for funding under the ER program.

Options 2 or 3 should be limited to specific events where the delay in securing a formal finding is lengthy and is delaying repair efforts. Any Division Office authorization of work prior to the Division Administrator's formal finding should be coordinated with the Office of Program Administration.

Use of Option 1 is not acceptable when there is a delay in the Division Administrator's formal finding. Under no circumstances can ER funding from any source be used on an event until the Division Administrator's finding has been made.

3. General Comments

Prior to FHWA authorization of permanent ER repairs using regular Federal-aid funds or the advance construction process, it is strongly recommended that the Division Office review the activities and project features to be funded to assure their eligibility before starting construction.

G. Project Oversight

ER projects for permanent repairs should be processed following regular Federal-aid procedures. ER projects the same as or sufficiently similar to regular Federal-aid projects subject to the 23 U.S.C. 106 oversight exceptions can also be administered under these exceptions, subject to the following two conditions:

1. Any betterments to be incorporated into the project and for which ER funding is requested must receive prior FHWA approval.
2. The FHWA reserves the right to conduct final inspections on all ER projects. The Division Administrator has the discretion to undertake final inspections on ER projects as deemed appropriate.

H. Combined Federal-Aid And Emergency Relief

When the State or applicant decides not to replace a damaged facility in-kind and proposes work in excess of the work eligible for ER funds, a combined project may be programmed using ER funds to the extent eligible. Other Federal-aid funds may be used for the additional work. Separate programming is required for each class of funds with appropriate cross-referencing.

I. Construction Start Deadline (Time Extensions)

ER funds are allocated to assist the States and other agencies or organizations in conditions of emergency. Consequently, after approval of programs and allocation of funds, all projects should be completed promptly. Failure to advance an approved ER project to completion within a reasonable period of time could result in withholding of funding for that project. Emergency

opening work should be accomplished within one month of accessibility to the site under normal circumstances.

Unless there is satisfactory justification for project delay to warrant its retention, projects for permanent repairs that have not advanced to construction obligation by the end of the second fiscal year following the year in which the disaster occurred cannot be authorized. Justification for such delay and request for time extension must be submitted to the FHWA Division Administrator for approval. Time extensions are granted in one-year increments. Such delays may be caused by the need for extensive environmental evaluation, litigation, or complex right-of-way acquisition.

In certain situations the delay of permanent work may be as much as two to three years. Permanent restoration work, for example, could be deferred to permit study of a serious slide condition, thereby allowing sufficient time to adequately design a permanent correction.

J. FHWA as the Construction Agency

State or local agencies may request the FHWA to accomplish repairs, reconstruction, or relocation of sections that are on the Federal-aid highways. The emergency operations to restore essential traffic should be handled by the State or local agency. In any event, where such situations are anticipated, a letter of request should be prepared by the State or local agency through the State to the Division Administrator expressing the desire to have the FHWA perform the work. The Division Administrator should promptly forward any such request to the Federal Lands Highway Division Engineer along with his/her recommendations, and arrange for a joint field inspection by the two offices, the local agency, and/or the State.

K. Project Designations and Numbering

All ER-funded projects on a Federal-aid highway (not on a Federal road) shall be designated with the prefix "ER". ER projects located on Federal Roads use the prefix letters "ERFO" (Emergency Relief Federally Owned). Combination projects designated "ER-ERFO" may be used where portions of a project on a Federal-aid highway are also located on a Federal road.

The State may designate the project numbering system to be used for each project resulting from a natural disaster or catastrophic failure. Where an existing "ER" series has been established, the State may continue the sequence of the established series of project numbers for several individual improvements, with separate agreement numbers for individual improvements.

Projects may be numbered to conform to the system established for other Federal-aid projects. For the project number, enter seven digits (four digits for Route number and three digits for agreement number) preceded by the prefix ER.

L. Disaster Code

Division offices should be prepared to readily identify obligations by appropriation and by disaster. The Fiscal Management Information System (FMIS) provides a disaster number entry, which should be carefully entered to ensure that legislated limits on obligations for a particular disaster are not exceeded.

The disaster number is assigned at the time of the finding. This number should be shown as part of the disaster identification on the program. It consists of the fiscal year of the initial damage, followed by the sequence number (based on the number of disasters submitted by a State) of the disaster. Thus, the first disaster submitted by a State where the event began on or after October 1, 2002, would be shown as "02-1," with any subsequent eligible disasters submitted during the FY 2002 following in sequence as "02-2," etc.

Item number 42 in the FMIS should be completed as follows: The Disaster Code (five digits) should be used. The first four digits represent the fiscal year assigned to the event, e.g., 2002 or 2003, etc. Enter as the fifth digit the sequence number assigned to the disaster. For example, the first disaster approved in a State for FY 2003 would be coded 20031.

M. Construction Contracts /Force Account

Permanent repair and reconstruction work, not accomplished as emergency repairs, must be done by a competitive bid contract method unless the State demonstrates some other method is cost effective as described in 23 CFR 635.204.

Emergency repair work may be accomplished by the contract, negotiated contract, or transportation agency force account method as determined by the transportation agency as best suited to protect the public health and safety.

1. Emergency Repairs

Work shall be undertaken by the advertised contract method where feasible. The FHWA may approve a waiver of the advertising requirement if State or local law authorizes such procedures, and the contract method chosen is suitable for the proposed corrective work. Public agencies may perform force account work but are not permitted to compete for solicited or negotiated contracts.

a. Force Account

The term force account means the direct performance of highway construction work by a State transportation agency, a county, a railroad, or a public utility company by use of labor, equipment, materials, and supplies furnished by them and used under their direct control. Since the National Guard does not fall under any of the above-mentioned categories, ER funds cannot be used to pay for National Guard services on a force account basis.

Due to the emergency character of the work, State and local forces and/or negotiated equipment rental contracts may be used to perform a considerable portion of the emergency repairs. In accordance with 23 CFR 635.204(b), a formal finding for force account work for emergency repairs is not required.

b. Solicited Contract

A solicited contract may be warranted due to the emergency character of the work. The State may contact a reasonable minimum number of contractors by telephone to solicit equipment rental, labor, and materials bids for a specific amount of work. 23 U.S.C. 112(c) requires that a sworn statement of non-collusion to restrain of free competitive bidding must accompany the contractor's bid submittal. A summary showing how the solicitation was conducted, who was contacted, and the responses by the contractors must also be prepared.

c. Negotiated Contract

A negotiated contract provides for performance of a certain amount of work after a contractor has been selected. Usually such contracts include compensation for "move-in and move out" costs and/or a percentage of cost based on actual cost of equipment, labor, and materials. If one contractor acts as the prime contractor, there may also be an additional percentage of actual cost included for supervision of the other contractors' equipment on the job, similar to a subcontracting agreement.

If a negotiated contract is used for ER repairs, neither the sworn statement required by Section 112(c) of Title 23 nor the cost effective finding required by 23 CFR 635 is required.

2. Permanent Repairs

Permanent repair and reconstruction work, not accomplished as emergency repairs, must be done by contract awarded by competitive bidding unless the State demonstrates some other methods is cost effective as described in 23 CFR 635.204. The contracting agency must assure an opportunity for free, open, and competitive bidding, including adequate publicity of the advertisements or call for bids. However, in certain cases, ER construction projects can be accelerated using other contracting techniques described below.

3. Techniques to Accelerate Projects

Innovative contracting procedures available to accelerate ER construction projects include cost-plus-time bidding, commonly referred to as A+B method, lane rental, and design-build contracting, and they are discussed below. Other methods such as abbreviated plans, shortened advertisement period for bids, and incentive/disincentive clauses are commonly used to

accelerate ER construction projects, also discussed below. Contracting agencies must comply with 23 CFR Part 636 when using the design-build delivery system to provide for the permanent repairs of a damaged facility.

a. Cost-Plus-Time Bidding

Cost-plus-time bidding, more commonly referred to as the A+B method, involves time, with an associated cost, in the low bid determination. Under the A+B method, each bid submitted consists of two components:

The "A" component is the traditional bid for the contract items and is the dollar amount for all work to be performed under the contract.

The "B" component is a "bid" of the total number of calendar days required to complete the project, as estimated by the bidder (calendar days are used to avoid any potential for controversy which may arise if work days were used).

The bid for award consideration is based on a combination of the bid for the contract items and the associated cost of the time, according to the formula:

$$(A) + (B \times \text{Road User Cost} / \text{Day})$$

This formula is only used to determine the lowest bid for award and is not used to determine payment to the contractor.

The contract incorporates a disincentive provision that assesses road user costs to discourage the contractor from overrunning the time "bid" for the project. In addition, the contract should include an incentive provision to reward the contractor if the work is completed earlier than the time bid.

For critical projects that have high road user delay impacts, the A+B Method can be an effective technique to significantly reduce these impacts. This technique has successfully been used on an ER project to replace a damaged freeway bridge in a large urbanized area.

b. Lane Rental

Like cost-plus-time bidding, lane rental concept encourages contractors to minimize road user impacts during construction. The contract incorporates a lane rental fee assessment based on estimated cost of delay or inconvenience to the road user during the rental period. The fee is assessed for the time that the contractor occupies or obstructs part of the roadway and is deducted from the monthly progress payments.

The bidding proposal includes the lane rental fee rates in dollars per lane per time period, which could be daily, hourly, or fractions of an hour. Neither the contractor nor the contracting

agency gives an indication as to the anticipated amount of time for which the assessment will apply and the low bid is determined solely on the lowest amount bid for the contract items.

The rental fee rates depend on the number and type of lanes closed and can vary for different hours of the day. For example, the peak travel periods between 6:30 AM and 9:00 AM and 3:00 PM and 6:00 PM might have an hourly rental fee of \$2,000 for closing one lane, while a lane could be closed at any other time at a rental fee of \$500 per hour.

Lane rental encourages contractors to schedule their work to keep traffic restrictions to a minimum, both in terms of duration and number of lane closures. The lane rental concept has merit for use on projects that significantly impact the traveling public; major urban area projects are prime candidates for this approach.

c. Design-Build

The design-build concept allows the contractor maximum flexibility for innovation in the selection of design, materials and construction methods. With design-build procurement, the contracting agency identifies the end result parameters and establishes the design criteria. The prospective bidders then develop design proposals that optimize their construction abilities. The submitted proposals may be rated by the contracting agency on such criteria as design quality, timeliness, management capability and cost, and these criteria may be used to adjust the bids for the purpose of awarding the contract.

By allowing the contractor to optimize its work force, equipment, and scheduling, the design-build concept offers greater opportunities for innovation. However, along with the increased flexibility, the contractor must also assume greater responsibility. Extended liability insurance or warranty clauses may be used to ensure that the finished product will perform as required.

From the contracting agency's perspective, the potential timesavings are a significant benefit. Since the design and construction are performed through one procurement, construction can begin before all design details are finalized. For example, pile driving could begin while bridge lighting is still being designed. Because both design and construction are performed under the same contract, claims for design errors or construction delays due to design errors are not allowed, and the potential for other types of claims is greatly reduced.

Federal-aid funds may participate in design-build contracts when approved and awarded using competitive bidding procedures. For further details, refer the final rule published in the December 10, 2002 Federal Register.

The design-build method of contracting provides an alternative to the traditional design-bid-build contracting method, but it should only be used for projects that fit the design-build process. The contracting agency must adequately define the scope of work prior to the request for

proposals. A design-build project should have sufficient scope and complexity to allow for a strong creative design component. Relatively small or simple projects such as roadway resurfacing or minor roadway widening projects do not provide significant design components, and are not ideal projects for design-build. The design-build method assists in expediting project delivery. It is not intended to provide a means for quick obligation of funds or to compensate for insufficient State personnel resources.

d. Abbreviated Plans and Shortened Advertisement Period for Bids

The FHWA Division Administrator may approve abbreviated plans, provided all essential information necessary to describe the work to be accomplished and to determine the reasonableness of unit prices for contract or force account work have been provided. Also, the time period for advertisement of bids may be shortened; however, a State may also need to suspend its own rules and regulations covering advertisement periods.

e. Short List of Qualified Contractors

Another technique that has been used successfully to accelerate contract bidding and award involves using a short list of qualified contractors to bid on a project. For example, a minimum of three bidders may be selected based on the following: early willingness to respond, type of work, prior demonstrated ability to move swiftly, availability, staff and equipment, and having previously worked in the area. Generally, a contractor awarded a contract as low bidder on one project is not included in the short list of qualified contractors for the next project; however, the unsuccessful bidders are.

4. Contract Requirements

As already noted, permanent repair and reconstruction work not accomplished as emergency repairs must be done by a competitive bid contract method unless the State DOT demonstrates some other method is cost effective as described in 23 CFR Part 635.204. When permanent repair work not accomplished as emergency repairs is performed under a contract awarded by a local public agency, all Federal contract provision requirements outlined or referred to in 23 CFR Part 633A shall be met.

a. Davis-Bacon Act

Davis-Bacon wage rates on Federal-aid construction contracts apply for all ER contracts.

This provision cannot be waived by the FHWA. Davis-Bacon Act requirements may be waived only by executive order of the President, ref. 40 U.S.C. 276a-5, which states, *“In the event of national emergency the president is authorized to suspend the provisions of 276a to 276a-5 of this title.”*

b. Buy America

The FHWA’s “Buy America” regulations (23 CFR Part 635.410) apply to all Federal-aid highway construction projects that permanently incorporate either iron or steel. A State may request that these provisions be waived if *“the application of those provisions would be inconsistent with the public interest”* (23 CFR 635.4109(c)(1)(i)).

c. Disadvantaged Business Enterprises (DBE)

The normal DBE requirements are applicable to the Emergency Relief funded projects.

d. Americans With Disability Act (ADA)

The FHWA operates under the ADA regulations issued by the Department of Justice (DOJ). According to DOJ, no waivers from these regulations are possible. The governing statute and DOJ regulations make no provision or exception for emergency relief situations. The ADA accessibility guidelines issued by DOJ, however, do provide guidance concerning temporary structures.

e. Convict Labor

The convict labor prohibition in 23 U.S.C. 114 applies to ER projects. Convict labor cannot be used in ER construction projects.

N. Environmental Considerations:

Repair projects under the ER program must comply with the requirements of the National Environmental Policy Act (NEPA) of 1969. Emergency repairs to restore essential travel, minimize the extent of damage, or protect remaining facilities are normally classified as categorical exclusions under 23 CFR 771.117(c)(9), as are ER projects to restore permanently the existing facility in-kind at the existing location, ref. 23 CFR Part 771.117(d). However, if impacts to protected or otherwise sensitive or high-value resources are possible, advance coordination with the appropriate local, State, and Federal resource agencies should be closely considered to avoid or minimize project delays or shutdowns.

On occasion, an ER project that includes a betterment, whether or not eligible for ER funding, may require further NEPA review. Although on the surface a project may appear to qualify for a categorical exclusion, certain betterments may need either an environmental assessment (EA) to determine whether or not the project will cause significant environmental impacts, or an environmental impact statement (EIS) if significant impacts are predicted. This is illustrated by the following example:

Project Betterment Requiring Environmental Evaluation

When repairing a section of roadway inundated and seriously damaged by floodwaters, it was determined that a grade raise could be economically justified for ER funding. Raising the grade of the roadway will require small amounts of additional right-of-way from adjacent wetland areas. In addition, in future flood events, the higher roadway grade could impound additional water and flood other upstream areas. As a result of the project's potential impact on wetlands and future flooding patterns, further evaluation was necessary to determine the appropriate level of NEPA documentation.

The NEPA project development process provides the final Federal-aid highway project decision, occasionally including a facility on new location. As noted above, ER projects to construct replacement facilities may require environmental assessments or environmental impact statements, depending on the potential level of impacts to resources, the value of the resources, and what, if any, legal protections apply to the resources. However, even replacement facilities constructed at the existing location of the damaged facility may require extra environmental evaluation beyond that needed for a routine categorical exclusion. These situations are illustrated by the following examples:

Replacement at New Location

A roadway was permanently submerged by water backing up behind a naturally created dam, and it has been determined replacement of the inundated highway facility at its existing location is neither practical nor feasible, and various alternate locations may be available to relocate this section of highway. The NEPA process documents consideration of appropriate project alternatives and their potential impacts and determines that the preferred alternative is replacement of the old facility on a specific new location or site. Although a categorical exclusion can be used if circumstances merit, early environmental coordination may determine that an EA or an EIS is necessary to do this.

Replacement at Existing Location

An existing bridge over a river has been damaged beyond repair but can be replaced with a bridge of comparable width and length at the same location. However, this section of river contains critical habitat for a Federally listed endangered species, which would be seriously impacted during the scheduled construction period. As a result of this potential impact, the project decision could not be categorically excluded, and additional NEPA evaluation and documentation was necessary.

O. Design Standards

Reconstruction of damaged roadway and bridge facilities must meet adequate standards, including appropriate safety features. Reconstruction of extensively damaged facilities,

including betterment projects when adequately justified, should meet the current applicable design standards. Replacement of roadway facilities other than bridges is limited to the existing number of lanes and surface type. Bridges may be replaced with a facility that meets current geometric and construction standards required for the type and volumes of traffic that such a facility will carry over its design life.

P. State Emergency Manual

An important element of emergency procedures is the State's emergency operation plan. Since Federal-aid funds are not available for maintenance and State maintenance personnel will handle much of the emergency operations, the State's instructions should be carefully reviewed. It may be appropriate to supplement the State's instructions with portions of this manual, for example, Chapter V, Disaster Assessment and Damage Survey Summary Report and Chapter II, Eligibility of Damage Repair Work

APPENDICES

Appendix A
Sample State Letter Of Intent

Sample State Letter of Intent

TO: _____, Division Administrator

Federal Highway Administration

FROM: _____

Administrator and State Transportation Engineer

SUBJECT: Severe Flooding in [State]
March 23, 1997

Dear -----

Under provisions of Title 23, U.S.C., Section 125, this is notice of intent by the [State] Department of Transportation to request emergency relief funds to assist in the cost of repairing damages on the Federal-aid highways in [State] caused by the extreme runoff and flooding following the storm beginning March 23, 1997.

Attached is a copy of the Declaration by Governor _____ of a State of Disaster in [State] on March 24, 1997.

Preliminary estimates of the damages sustained to the Federal-aid highways will be forwarded within a few days when assembled.

We are proceeding expeditiously to maintain two-way traffic at all locations and to repair those sections sufficiently to protect facilities from further damage.

Yours Sincerely

Attachment

Appendix B
Sample FHWA Acknowledgement Letter

Sample FHWA Acknowledgment Letter

Name
Title
State Department of Transportation

Dear (name):

This is to acknowledge receipt of your letter of intent, dated (date), to request Emergency Relief Funds, authorized under 125 of Title 23, U.S.C., for the repair of damage to Federal-aid highways resulting from the (disturbance) of (date).

You should proceed with performance of emergency operations, including emergency repairs, on the Federal-aid highways necessary to restore essential traffic, to protect the remaining facilities, and to reduce the extent of damage. Also, you may proceed with preliminary engineering, meaning surveys, design, and preparation of construction plans, to perform the permanent restoration work required as an associated part of the emergency operations, and to use State forces and/or negotiated equipment rental contracts as necessary to perform the work.

The eligibility of such work for ER funds will be contingent upon a favorable finding by the FHWA Division Administrator, on the eligibility of the disaster, and subsequent approval of the work by FHWA.

The basis for the Division Administrator's decision will be the Damage Survey Summary Report, which must be submitted to this office. The DSSR, among other requirements, must include estimates of cost to repair and reconstruct the damaged Federal-aid highways.

My office will be meeting [has met] with members of your staff to make arrangements for reviewing the disaster damage and assisting in preparing the Damage Survey Summary Report and site damage reports. The Damage Survey Summary Report is to be submitted within --- weeks, if possible. If additional time is required, please advise, including the reasons why the extra time is necessary.

If FHWA concurs in the disaster, all emergency work must be included in a program of emergency repair projects. The program, when submitted for approval, shall include a detailed outline of the necessary emergency operations performed and a description of the permanent restoration work proposed. Permanent restoration work other than that performed as an associated part of the emergency operations, shall not be performed prior to program approval and authorization by this office.

Sufficient record keeping must be done to permit audit of costs on a site-by-site basis.

Sincerely yours, (Division Administrator)

Appendix C
Sample Governor's Proclamation

Sample Governor's Proclamation

Floods and rapid runoff, commencing on (date), were experienced throughout the following counties in (State) as a result of extremely heavy rains: (list of counties). The flooding and associated runoff have produced serious and extensive damage to both private and public property. As a consequence, this State has sustained severe damage to its road systems, which include bridges, roadbeds, and other facilities. Damage occurred on Federal-aid highways.

Damage throughout the (general location) part of the State has been of such an extent that immediate repairs have been necessary. Such conditions constitute an emergency as is contemplated by the terms of Sections 125 and 120(e) of Title 23, U.S.C.

Therefore, I (name), Governor of the State of (State) do hereby proclaim an emergency to exist throughout the (general location) part of the State as a result of flooding and runoff conditions and consequent danger to life and damage to property including Federal-aid highways. The immediate repair and reconstruction of the damaged highways is vital to the security, well-being, and health of the citizens of the State of (State); and the Federal Highway Division Administrator is hereby requested to concur in the declaration of this emergency.

In testimony whereof, I have hereunto subscribed my name and caused the seal of the State of (State) to be affixed at (City), the (day) day of (month), A.D. (year).

Governor of (State)

ATTEST:

Secretary of State

Appendix D
Detailed Damage Inspection Report Form

DETAILED DAMAGE INSPECTION REPORT

(Title 23, Federal-aid Highways)

Report Number _____

Sheet _____ of _____

FHWA Disaster Number _____

Inspection Date _____

Federal-aid Route Number _____

State _____ County _____

Location (Name of Road and Milepost)

Description of Damage

Cost Estimate

	Description of Work to Date (Equipment, Labor, and Materials)	Unit	Unit Price	Quantity	Cost	
					Completed	Remaining
Emergency Repair						
Method				Subtotal		
<input type="checkbox"/> Local Forces <input type="checkbox"/> State Forces <input type="checkbox"/> Contract				PE/CE		
					Emergency Repair Total	

Permanent Restoration						
Method				Subtotal		
<input type="checkbox"/> Local Forces <input type="checkbox"/> State Forces <input type="checkbox"/> Contract				PE/CE		
					Right-of-Way	
					Perm. Repair Totals	

Environmental Assessment Recommendation <input type="checkbox"/> Categorical Exclusion <input type="checkbox"/> EA/EIS	Estimated Total	
Recommendation <input type="checkbox"/> Eligible <input type="checkbox"/> Ineligible	FHWA Engineer	Date
Concurrence <input type="checkbox"/> Yes <input type="checkbox"/> No	State Engineer	Date
Concurrence <input type="checkbox"/> Yes <input type="checkbox"/> No	Local Agency Representative	Date

Appendix E
Sample State Letter for Quick Release of ER Funds

Sample State Letter for Quick Release of ER funds

Name
FHWA Division Administrator

Dear (name):

We appreciate your timely acknowledge letter of (date) sent in response to our letter of intent dated (date) . We are continuing to conduct necessary emergency operations and repairs to maintain traffic throughout the disaster area.

We are performing damage assessments throughout the area. At this time it is not possible to provide exact cost estimates; however, damage to Federal-aid highways is anticipated to exceed (\$) . We expect to be able to provide a more accurate estimate (within "X" weeks).

Our budget for emergencies is limited and local governments have even greater financial constraints with limited cash flows available to fund emergencies. Consequently, we are requesting approval of ER funding for this disaster with a quick release of emergency relief funds to allow us to proceed expeditiously with emergency repairs to Federal-aid highways.

We are requesting a quick release of (\$) for these emergency repairs. Additional allocations will be requested as damage survey teams inventory damage.

Sincerely yours,

(State Department of Transportation Official)

Date -----

Appendix F
Sample State Letter Requesting ER Funds

Sample State Letter Requesting ER Funds

Date-----

FHWA Division Administrator

Subject: Heavy Rains and Flooding March 23-26, 1997

Dear -----

Under the provisions of Title 23, U.S.C. Section 125, the (State) Department of Transportation is requesting Emergency Relief (ER) Funds to assist in the cost of repairing damages on Federal-aid highways in (State) damaged as a result of extreme runoff and flooding following the heavy rains beginning March 23, 1997. Based on the preliminary estimate of damage, we are requesting (\$3) million in ER funds. Following a favorable determination of eligibility for ER funds by the Federal Highway Division Administrator, we will submit detailed damage inspection report with the scope of work and cost estimate for each site as a program of projects.

Sincerely

(Signed)
Title
(State) DOT