

Emergency Relief (ER) Projects

Design Manual
Chapter 200
Geotechnical Design
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The purpose of this section is to provide an overview of ER projects and the ER Program, and how the Soils Design Section is involved in ER projects. The Emergency Relief (ER) program deals with the repairs to Federal-aid highways that have suffered serious damage as a result of natural disasters or catastrophic failures, and as a result qualify for Federal ER funding for repair.

Emergency Relief (ER) Program Description

Initiation and implementation of an ER Program to a natural disaster depends on:

- Extent and intensity of the disaster,
- Severity and extent of damage to the highway system, highway structures, and highway related features, and
- The magnitude of the cost to repair the damage.

Quick Tips:

- The Emergency Relief (ER) program deals with the repairs to Federal-aid highways that have suffered serious damage as a result of natural disasters or catastrophic failures, and as a result qualify for Federal ER funding for repair.
- Soils Design Section involvement typically includes early input on damage assessment and repair options (and estimated cost) so that DDIRs can be prepared and submitted to FHWA, followed by design of soil related repairs – similar to normal projects.

Soils Design Section Project Involvement

The Soils Design Section is typically involved in Emergency Relief projects to help with assessment and development of repair procedures and to help determine the estimated cost of repairs. Generally for ER Projects, the Soils Design Section's involvement will include, but isn't necessarily limited to:

- An office review of information that may be available.
- A site visit for field observation of the damage and to help assess the existing conditions and mechanisms that could have contributed to the emergency repair condition, i.e., verify that the damage is related to the event.
- At completion of the site visit, the Soils Design Section submits documentation (see example e-mail) to the District or State DOT representative who is coordinating the ER submittal/application to FHWA. This documentation typically includes:
 - Summary of site observations, including dimensions and other characteristics of the damage (soil borings may be scheduled during this phase).
 - Description of problem(s) and pictures of the damaged areas.
 - Recommendations for additional work such as the need for surveying, and an outline of the soils related repairs that appear to be necessary, including alternative solutions.
 - Rough cost estimate for the soils related repairs, including information of estimated quantities, materials, ROW needs, etc.

When all information pertaining to an ER event has been gathered and assembled by the Iowa DOT representative, the Iowa DOT sends all pertinent information to FHWA, usually in the form of a DDIR (Detailed Damage Inspection Report) for each site. FHWA reviews the information and typically visits each site to determine eligibility for an ER Program and federal ER funding, and informs the DOT of their determination. If ER funding is approved, then design of repairs proceeds.

The Soils Design Section typically prepares plan sheets for the soils-related repairs and provides those sheets and other pertinent information to a Design Section for packaging and letting. This basic process is generally similar to that used with non-ER projects, as discussed in previous sections. Variations from and/or expansion of the basic repair as approved by FHWA cannot be made without subsequent approval by FHWA of that variation or expansion.

The Soils Design Section is usually the primary designer of repairs for ER foreslope, backslope, and similar soils related damage. However, Preliminary Bridge is usually the primary designer of repairs at or adjacent to bridges and culverts, and damage specific to stream banks (loss of ground, erosion, etc).

If federal ER funding is not granted, the District then needs to program repair of the damage by prioritizing it along with all other District projects.

Typical Projects

The type of soils related emergency repair projects that the Soils Design Section is typically involved with includes:

- ER related foreslope and backslope landslides and development of repairs. See Section [200F-10](#).
- Other ER damage that is soils related.

Reference Documents

Emergency Relief Manual-(Federal-Aid Highways), Updated May 31, 2013, Office of Infrastructure, Office of Program Administration, Federal Highway Administration.

Chronology of Changes to Design Manual Section:

200H-001 Emergency Relief Projects

1/15/2014	NEW
	New