(a) Definitions

- **Emergency Event:** a natural disaster or catastrophic failure resulting in an emergency declared by the state governor or president.
- Evacuation Route: a pre-designated (by the entity with jurisdiction over the area where the route is located) transportation route or system used to transport the public away from emergency events or to transport emergency responders and recovery resources.
- Resilience Improvement: use of materials, structural, or nonstructural techniques including natural infrastructure to enable infrastructure that:
 - adapts to changing conditions,
 - withstands and respond to disruptions,
 - continues to serve primary function of the asset during and after weather events and natural disasters for the intended life of the asset,
 - Reduces duration and magnitude of impacts of current and future weather events and natural disasters to the asset,
 - Improves absorptive capacity, adaptive capacity, and recoverability to decrease asset vulnerability to current and future weather events or natural disasters.

(b) Establishment

- Purpose: provide grants for resilience improvements through formula funding, competitive planning grants, and competitive resilience improvement grants to protect:
 - Surface transportation assets,
 - Community access to critical regional assets (hospitals, major employers, critical manufacturing centers, ports, intermodal facilities, utilities, etc.) through evacuation routes and continuous operations strategies and rapid recovery of surface transportation systems,
 - Coastal infrastructure, and
 - Natural infrastructure which in turn protects surface transportation assets

(c) Apportioned Funding General Details

- Fiscally apportioned PROTECT program state funds (estimated \$140.1 million for Texas)
- No less than 2% (estimated \$2.8 million) of fiscally apportioned funds to states shall be for planning grantrelated activities, such as:
 - RIP development,
 - vulnerability assessment tool development,
 - resilience capability and capacity building,
 - evacuation planning, etc.
- Eligible projects from apportioned funds include:
 - Highway project
 - Public transportation facility or service
 - Port facility that:
 - a) connects a port to other modes of transportation,
 - b) improves the efficiency of evacuations and disaster relief,
 OR
 - aids transportation
- A project may include natural infrastructure or storm surge, flood protection, or aquatic ecosystem restoration elements connected to a transportation improvement (e.g., marsh restoration adjacent to highway ROW, culvert upgrades, flood gate installation, stormwater improvements, etc.)

(c) Apportioned Funding-Federal Cost Share, Requirements, Eligible Project Costs, and Limitations

Federal Cost Share:

- Unless resilience improvement plans (RIP) are developed with resilience projects <u>prioritized</u> (7% match reduction) and <u>integrated</u> <u>into MTP</u> (3% match reduction), federal cost share will not exceed more than 80% of the total project cost.
- A state may use other federal funds outside the PROTECT program to meet non-federal cost share requirements

• Requirement:

- Resilience improvement projects in part or in whole within a flood plain need to:
 - identify the base flood plain, and
 - indicate if State or regional FEMA hazard mitigation plan has mitigation investments also being implemented.
- Eligible Project Costs for all Resilience Improvement Grant Projects:
 - Development Phase Activities including: Planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering, design work, other preconstruction activities.
 - Construction Phase Activities: Construction, reconstruction, rehabilitation, ROW acquisition, environmental mitigation, construction contingencies, equipment purchase tied to operational/system performance
- Eligible Project Costs for all Planning Grant Projects:
 - Planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering, design work, other preconstruction activities.

Limitations:

- No more than 40% of the grant amount can go to <u>construction of</u> <u>new capacity</u>
- No more than 10% of the grant amount can go to <u>development</u> <u>phase activities</u>.

(d) Competitive Awards-General Details

• Eligible entities:

- State or political subdivision of a State
- MPO
- Local unit of government
- Special purpose district (RMAs?) or public authority with a transportation function, including a port authority
- Indian tribe
- Federal land management agency
- Multi-State or multijurisdictional group of entities detailed in the above list
- Eligible projects for competitive awards include:
 - Highway project
 - Public transportation facility or service
 - A facility or service for intercity rail passenger transportation
 - Port facility that:
 - a) connects a port to other modes of transportation,
 - b) improves the efficiency of evacuations and disaster relief, OR
 - aids transportation
 - May include natural infrastructure

(d) Competitive Awards-Resilience Planning Grants

Planning Grant Projects for:

- RIP Development
- resilience planning, predesign, design, or the development of data tools to simulate transportation disruption scenarios, including vulnerability assessments;
- Technical capacity building to help entity assess the vulnerability of surface transportation assets and use community response strategies
- Evacuation planning and preparation

(d) Competitive Awards-Resilience Improvement Grants

- Four types of Resilience Grants:
 - **1. Resilience Improvement Grant:** construction activities to prepare assets for extreme weather, natural disasters, or impacts from changing conditions.
 - Priorities go to projects with: a) clear benefit-to-cost ratio; b) asset at high risk of failure resulting from weather, natural disasters, or changing conditions; c) the eligible project is included in the RIP
 - List of 17 eligible activities included:
 - (aa) resurfacing, restoration, rehabilitation, reconstruction, replacement, improvement, or realignment of an existing surface transportation facility eligible for assistance under this title;
 - (bb) the incorporation of natural infrastructure;
 - (cc) the upgrade of an existing surface transportation facility to meet or exceed a design standard adopted by the Federal Highway Administration;
 - (dd) the installation of mitigation measures that prevent the intrusion of floodwaters into surface transportation systems;
 - (ee) strengthening systems that remove rainwater from surface transportation facilities;
 - (ff) upgrades to and installation of structural stormwater controls;
 - (gg) a resilience project that addresses identified vulnerabilities described in the resilience improvement plan of the eligible entity, if applicable;
 - (hh) relocating roadways in a base floodplain to higher ground above projected flood elevation levels, or away from slide prone areas;
 - (ii) stabilizing slide areas or slopes;
 - (jj) installing riprap;
 - (kk) lengthening or raising bridges to increase waterway openings, including to respond to extreme weather;
 - (II) increasing the size or number of drainage structures;
 - (mm) installing seismic retrofits on bridges;
 - (nn) adding scour protection at bridges;
 - (oo) adding scour, stream stability, coastal, and other hydraulic countermeasures, including spur dikes;
 - (pp) vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, facilitate wildfire control, and provide erosion control; and
 - (qq) any other protective features, including natural infrastructure, as determined by the Secretary.

(d) Competitive Awards-Community Resilience and Evacuation Route Grants

- 2. Community Resilience and Evacuation Route Grants: Projects that strengthen and protect evacuation routes essential for supporting evacuations caused by emergency events/governor or president disaster declarations (see definition on page 1)
- Priorities go to projects with: a) clear benefit-to-cost ratio; b) established recurrence of emergency events with high likelihood to occur in the geographic area the evacuation route is located; c) projected changes in development patterns, demographics, and extreme weather events based on available evidence and analysis
- Project Types include:
 - Eligible for 17 types of improvement listed in resilience improvement grant as long as it improves an evacuation route.
 - Reduces risk of damage to evacuation route including restoring or replacing evacuation routes in poor condition or not designed to meet the anticipated demand during an emergency event
 - Expand capacity of evacuation route through installation of communications and intelligent transportation system equipment and infrastructure; counterflow measures; or shoulders.
 - Construction of new or redundant evacuation routes
 - Purchase of evacuation route or traffic incident management equipment or signage
 - Project ensures access to critical destinations such as hospitals, emergency service facilities, major employers, critical manufacturing centers, ports, intermodal facilities, utilities, and federal facilities

(d) Competitive Awards-At-Risk Coastal Infrastructure Grants

- 3. At-Risk Coastal Infrastructure Grants:
 Projects that improve transportation and public safety and reduce costs by avoiding future maintenance or rebuilding costs for states bordering Atlantic, Pacific, Arctic, Gulf of Mexico, Long Island Sound, or 1 or more of the Great Lakes that:
- Enhance the resilience of highway and non-rail infrastructure, including bridges, roads, pedestrian walkways, bicycle lanes, culverts, tide gates that protect highways, AND
- that are impacted by long-term future risks from:
 - weather events a natural disaster, or
 - changing conditions including:
 - coastal flooding,
 - erosion,
 - wave action,
 - storm surge, or
 - sea level rise.
- Grant applications will be evaluated based on the extent to which a project provides:
 - Access to coastal homes, businesses, communities, and other critical infrastructure, including access by first responders and other emergency personnel.
 - Access to a designated evacuation route

(d) Competitive Awards-Federal Cost Share, Requirements, Eligible Project Costs, and Limitations

Federal Cost Share

- Unless resilience improvement plans (RIP) are developed with resilience projects prioritized (7% match reduction) and integrated into MTP (3% match reduction), federal cost share will not exceed more than 80% of the total project cost for resilience improvement grants.
 - The eligible entity may use federal funds other than federal funds provided by the PROTECT program to match the cost-share.
- Planning activity carried out using a planning grant will have a 100% federal cost share match.
- Eligible Resilience Project Costs (Same as Apportioned Project Costs)
- Requirements
 - Resilience improvement projects in part or in whole within a flood plain need to:
 - identify the base flood plain, and
 - indicate if State or regional FEMA hazard mitigation plan has mitigation investments also being implemented.
- Limitations (Same as Apportioned Project Costs, Except):
 - No more than 25% of costs to be distributed to Intercity Rail Facility or Service project types.

(e) Resilience
Improvement PlanPlan Contents
"The Must Haves"

- First, resilience improvement plans are not required.
- But if you build one, a resilience improvement plan <u>must</u>:
 - include the immediate and long-range planning activities and investments of an MPO with respect to resilience of the surface transportation system within the boundaries of the metropolitan planning organization.
 - demonstrate a systemic approach to surface transportation system resilience and be consistent with and complementary of the State and local mitigation plans required under section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5165);
 - include a risk-based assessment of vulnerabilities of transportation assets and systems to <u>current and future</u> weather events and natural disasters, such as: a) severe storms; b) Flooding; c) drought; d) levee and dam failures; e) wildfire; f) rockslides; g) mudslides; h) sea level rise; i) extreme weather, including extreme temperatures; j) earthquakes
 - include a description of how the plan will improve the ability of the MPO to:
 - respond promptly to the impacts of weather events and natural disasters
 - be prepared for changing conditions, such as sea level rise and increased flood risk
 - describe any codes, standards, and/or regulatory framework adopted to ensure resilience improvements within the impacted area of proposed projects are included in the resilience improvement plan
 - consider the benefits of combining hard surface transportation assets, and natural infrastructure, through coordinated efforts by the Federal Government and the State
 - assess the resilience of other community assets, including buildings and housing, emergency management assets, and energy, water, and communication infrastructure
 - use a long-term planning period
 - include such other information as the MPO considers appropriate

(e) Resilience
Improvement PlanPlan Contents
"The Optionals"

- A resilience improvement plan may:
 - designate evacuation routes and strategies, including multimodal facilities, designated with consideration for individuals without access to personal vehicles.
 - plan for response to anticipated emergencies, including plans for:
 - The mobility of emergency response personnel and equipment
 - Access to emergency services, including for vulnerable or disadvantaged populations
 - describe the resilience improvement policies including strategies, land-use and zoning changes,
 investments in natural infrastructure, or performance
 measures that will inform the transportation
 investment decisions of the MPO with the goal of
 increasing resilience.
 - **include** an investment plan that:
 - includes a list of priority projects
 - describes how competitive award funds or funds apportioned to the State under the PROTECT program would be invested and matched, which shall not be subject to fiscal constraint requirements
 - use science and data and indicate the source of data and methodologies.

(f) Monitoring

- Within 18 months following the BIL enactment, the USDOT will establish:
 - Metrics for monitoring and evaluating the effectiveness of resilience improvement projects under the <u>Competitive Awards</u> grants.
 - Procedures for monitoring and evaluating competitive award grant projects.
 - Before adopting any metrics, publish the proposed metrics in the Federal Register to provide the public opportunity for comment.