

**AMENDMENT TO THE AMENDMENT IN THE
NATURE OF A SUBSTITUTE TO H.R. 2
OFFERED BY MR. GRAVES OF LOUISIANA**

Page 928, after line 12, insert the following:

1 **DIVISION _____ —RESILIENCY**

2 **SEC. ____ . PROMOTING RESILIENT OPERATIONS FOR**
3 **TRANSFORMATIVE, EFFICIENT, AND COST-**
4 **SAVING TRANSPORTATION (PROTECT) GRANT**
5 **PROGRAM.**

6 (a) IN GENERAL.—Chapter 1 of title 23, United
7 States Code, is amended by adding at the end the fol-
8 lowing:

9 **“§ [____]. Promoting Resilient Operations for**
10 **Transformative, Efficient, and Cost-Sav-**
11 **ing Transportation (PROTECT) grant**
12 **program**

13 “(a) DEFINITIONS.—In this section:

14 “(1) EMERGENCY EVENT.—The term ‘emer-
15 gency event’ means a natural disaster or cata-
16 strophic failure or an imminent natural disaster or
17 catastrophic failure resulting in—

1 “(A) an emergency declared by the Gov-
2 ernor of the State in which the disaster or fail-
3 ure occurred or will occur; or

4 “(B) an emergency or disaster declared by
5 the President pursuant to the Robert T. Staf-
6 ford Disaster Relief and Emergency Assistance
7 Act (42 U.S.C. 5121 et seq.).

8 “(2) EVACUATION ROUTE.—The term ‘evacu-
9 ation route’ means a transportation route or system
10 that—

11 “(A) is owned, operated, or maintained by
12 a Federal, State, Indian Tribe, or local govern-
13 ment or a private entity;

14 “(B) is used—

15 “(i) to transport the public away from
16 emergency events; or

17 “(ii) to transport emergency respond-
18 ers and recovery resources; and

19 “(C) is designated by the eligible entity
20 with jurisdiction over the area in which the
21 route is located for the purposes described in
22 subparagraph (B).

23 “(3) PROGRAM.—The term ‘program’ means
24 the grant program established under subsection
25 (b)(1).

1 “(4) RESILIENCE IMPROVEMENT.—The term
2 ‘resilience improvement’ means the use of materials
3 or structural or nonstructural techniques, including
4 natural infrastructure—

5 “(A) that allow a project—

6 “(i) to better anticipate, prepare for,
7 and adapt to changing conditions and to
8 withstand and respond to disruptions; or

9 “(ii) to be better able to continue to
10 serve the primary function of the project
11 during and after weather events and nat-
12 ural disasters for the expected life of the
13 project; or

14 “(B) that—

15 “(i) reduce the cost, magnitude and
16 duration of impacts of current and future
17 weather events and natural disasters to a
18 project; or

19 “(ii) have the absorptive capacity,
20 adaptive capacity, and recoverability to de-
21 crease project vulnerability to current and
22 future weather events or natural disasters.

23 “(b) ESTABLISHMENT.—

24 “(1) IN GENERAL.—The Secretary shall estab-
25 lish a grant program, to be known as the ‘Promoting

1 Resilient Operations for Transformative, Efficient,
2 and Cost-saving Transportation grant program’ or
3 the ‘PROTECT grant program’.

4 “(2) PURPOSE.—The purpose of the program is
5 to provide grants for resilience improvements
6 through—

7 “(A) formula funding distributed to States;

8 “(B) competitive planning grants to enable
9 communities to assess vulnerabilities to current
10 and future weather events and natural disasters
11 and changing conditions, including sea level
12 rise, and plan infrastructure improvements and
13 emergency response strategies to address those
14 vulnerabilities; and

15 “(C) competitive resilience improvement
16 grants to protect—

17 “(i) infrastructure assets by making
18 the assets more resilient to current and fu-
19 ture weather events and natural disasters,
20 including severe storms, flooding, tornados,
21 drought, levee and dam failures, wildfire,
22 landslides, sea level rise, extreme weather,
23 including extreme temperature, and earth-
24 quakes;

1 “(ii) communities through resilience
2 improvements and strategies that allow for
3 the continued operation or rapid recovery
4 of surface transportation systems that—

5 “(I) serve critical local, regional,
6 and national needs, including evacu-
7 ation routes; and

8 “(II) provide access or service to
9 hospitals and other medical or emer-
10 gency service facilities, major employ-
11 ers, critical manufacturing centers,
12 ports and intermodal facilities, utili-
13 ties, and Federal facilities;

14 “(iii) coastal infrastructure, such as a
15 tide gate, that is at long-term risk to sea
16 level rise; and

17 “(iv) natural infrastructure that pro-
18 tects and enhances surface transportation
19 assets while improving ecosystem condi-
20 tions, including culverts that ensure ade-
21 quate flows in rivers and estuarine sys-
22 tems.

23 “(c) FORMULA AWARDS.—

24 “(1) DISTRIBUTION OF FUNDS TO STATES.—

1 “(A) IN GENERAL.—For each fiscal year,
2 the Secretary shall distribute among the States
3 the amounts made available to carry out this
4 subsection for that fiscal year in accordance
5 with subparagraph (B).

6 “(B) DISTRIBUTION.—The amount for
7 each State shall be determined by multiplying
8 the total amount made available to carry out
9 this subsection for the applicable fiscal year by
10 the ratio that—

11 “(i) the total base apportionment for
12 the State under section 104(c); bears to

13 “(ii) the total base apportionments for
14 all States under section 104(c).

15 “(2) ELIGIBLE ACTIVITIES.—

16 “(A) IN GENERAL.—Except as provided in
17 subparagraph (B), a State shall use funds made
18 available under paragraph (1) to carry out ac-
19 tivities eligible under subparagraph (A), (B), or
20 (C) of subsection (d)(4).

21 “(B) PLANNING SET-ASIDE.—Of the
22 amounts made available to each State under
23 paragraph (1) for each fiscal year, not less than
24 2 percent shall be for activities described in
25 subsection (d)(3).

1 “(3) REQUIREMENTS.—

2 “(A) PROJECTS IN CERTAIN AREAS.—If a
3 project under this subsection is carried out, in
4 whole or in part, within a base floodplain, the
5 State shall—

6 “(i) identify the base floodplain in
7 which the project is to be located and dis-
8 close that information to the Secretary;
9 and

10 “(ii) indicate to the Secretary whether
11 the State plans to implement 1 or more
12 components of the risk mitigation plan
13 under section 322 of the Robert T. Staf-
14 ford Disaster Relief and Emergency Assist-
15 ance Act (42 U.S.C. 5165) with respect to
16 the area.

17 “(B) ELIGIBILITIES.—A State shall use
18 funds made available under paragraph (1) for—

19 “(i) a highway project eligible for as-
20 sistance under this title;

21 “(ii) a public transportation facility or
22 service eligible for assistance under chapter
23 53 of title 49; or

1 “(iii) a facility or service for intercity
2 rail passenger transportation (as defined in
3 section 24102 of title 49).

4 “(C) SYSTEM RESILIENCE.—A project car-
5 ried out by a State with funds made available
6 under this subsection may include, consistent
7 with State hazard mitigation plans, the use of
8 natural infrastructure or the construction or
9 modification of storm surge, flood protection, or
10 aquatic ecosystem restoration elements that are
11 functionally connected to a transportation im-
12 provement, such as—

13 “(i) increasing marsh health and total
14 area adjacent to a highway right-of-way to
15 promote additional flood storage;

16 “(ii) upgrades to and installation of
17 culverts designed to withstand 100-year
18 flood events;

19 “(iii) upgrades to and installation of
20 tide gates to protect highways; and

21 “(iv) upgrades to and installation of
22 flood gates to protect tunnel entrances.

23 “(D) FEDERAL COST SHARE.—

24 “(i) IN GENERAL.—Except as pro-
25 vided in subsection (f)(1), the Federal

1 share of the cost of a project carried out
2 using funds made available under para-
3 graph (1) shall not exceed 80 percent of
4 the total project cost.

5 “(ii) NON-FEDERAL SHARE.—A State
6 may use Federal funds other than Federal
7 funds made available under this subsection
8 to meet the non-Federal cost share re-
9 quirement for a project under this sub-
10 section.

11 “(E) ELIGIBLE PROJECT COSTS.—

12 “(i) IN GENERAL.—Except as pro-
13 vided in clause (ii), eligible project costs
14 for activities carried out by a State with
15 funds made available under paragraph (1)
16 may include the costs of—

17 “(I) development phase activities,
18 including planning, feasibility anal-
19 ysis, revenue forecasting, environ-
20 mental review, preliminary engineer-
21 ing and design work, and other
22 preconstruction activities; and

23 “(II) construction, reconstruc-
24 tion, rehabilitation, and acquisition of
25 real property (including land related

1 to the project and improvements to
2 land), environmental mitigation, con-
3 struction contingencies, acquisition of
4 equipment directly related to improv-
5 ing system performance, and oper-
6 ational improvements.

7 “(ii) ELIGIBLE PLANNING COSTS.—In
8 the case of a planning activity described in
9 subsection (d)(3) that is carried out by a
10 State with funds made available under
11 paragraph (1), eligible costs may include
12 development phase activities, including
13 planning, feasibility analysis, revenue fore-
14 casting, environmental review, preliminary
15 engineering and design work, other
16 preconstruction activities, and other activi-
17 ties consistent with carrying out the pur-
18 poses of subsection (d)(3).

19 “(F) LIMITATIONS.—In carrying out this
20 subsection, a State—

21 “(i) may use not more than 25 per-
22 cent of the amounts made available under
23 this subsection for the construction of new
24 capacity so long as such inclusion is cost-

1 effective and is directly related to the un-
2 derlying project; and

3 “(ii) may use not more than 10 per-
4 cent of the amounts made available under
5 this subsection for activities described in
6 subparagraph (E)(i)(I).

7 “(d) COMPETITIVE AWARDS.—

8 “(1) IN GENERAL.—In addition to funds dis-
9 tributed to States under subsection (c)(1), the Sec-
10 retary shall provide grants on a competitive basis
11 under this subsection to eligible entities described in
12 paragraph (2).

13 “(2) ELIGIBLE ENTITIES.—The Secretary may
14 make a grant under this subsection to any of the fol-
15 lowing:

16 “(A) A State or political subdivision of a
17 State.

18 “(B) A metropolitan planning organiza-
19 tion.

20 “(C) A unit of local government.

21 “(D) A special purpose district or public
22 authority with a transportation function, includ-
23 ing a port authority.

24 “(E) An Indian tribe (as defined in section
25 207(m)(1)).

1 “(F) A Federal land management agency
2 that applies jointly with a State or group of
3 States.

4 “(G) A multi-State or multijurisdictional
5 group of entities described in subparagraphs
6 (A) through (F).

7 “(3) PLANNING GRANTS.—Using funds made
8 available for purposes under this subsection, the
9 Secretary shall provide planning grants to eligible
10 entities for the purpose of—

11 “(A) in the case of a State or metropolitan
12 planning organization, developing a resilience
13 improvement plan under subsection (f)(2);

14 “(B) resilience planning, predesign, design,
15 or the development of data tools to simulate
16 transportation disruption scenarios, including
17 vulnerability assessments;

18 “(C) technical capacity building by the eli-
19 gible entity to facilitate the ability of the eligi-
20 ble entity to assess the vulnerabilities of the in-
21 frastructure assets and community response
22 strategies of the eligible entity under current
23 conditions and a range of potential future con-
24 ditions; or

25 “(D) evacuation planning and preparation.

1 “(4) RESILIENCE GRANTS.—

2 “(A) RESILIENCE IMPROVEMENT
3 GRANTS.—

4 “(i) IN GENERAL.—Using funds made
5 available for purposes under this sub-
6 section, the Secretary shall provide resil-
7 ience improvement grants to eligible enti-
8 ties to carry out 1 or more eligible activi-
9 ties under clause (ii).

10 “(ii) ELIGIBLE ACTIVITIES.—

11 “(I) IN GENERAL.—An eligible
12 entity may use a resilience improve-
13 ment grant under this subparagraph
14 for 1 or more construction activities
15 to enable an existing surface transpor-
16 tation infrastructure asset to with-
17 stand or reduce the costs and impact
18 of 1 or more elements of a weather
19 event or natural disaster, or to in-
20 crease the resilience of surface trans-
21 portation infrastructure from the
22 costs and impacts of changing condi-
23 tions, such as sea level rise, flooding,
24 extreme weather events, and other
25 natural disasters.

- 1 “(II) INCLUSIONS.—An activity
2 eligible to be carried out under this
3 subparagraph includes—
- 4 “(aa) resurfacing, restora-
5 tion, rehabilitation, reconstruc-
6 tion, replacement, improvement,
7 or realignment of an existing sur-
8 face transportation facility eligi-
9 ble for assistance under this title;
- 10 “(bb) the incorporation of
11 natural infrastructure;
- 12 “(cc) the upgrade of an ex-
13 isting surface transportation fa-
14 cility to meet or exceed Federal
15 Highway Administration ap-
16 proved design standards;
- 17 “(dd) the installation of
18 mitigation measures that prevent
19 the intrusion of floodwaters into
20 surface transportation systems;
- 21 “(ee) strengthening systems
22 that remove rainwater from sur-
23 face transportation facilities;
- 24 “(ff) a resilience project that
25 addresses identified

1 vulnerabilities described in the
2 resilience improvement plan of
3 the eligible entity, if applicable;
4 “(gg) relocating roadways in
5 a base floodplain to higher
6 ground above projected flood ele-
7 vation levels, or away from slide
8 prone areas;
9 “(hh) stabilizing slide areas
10 or slopes;
11 “(ii) installing riprap;
12 “(jj) lengthening or raising
13 bridges to increase waterway
14 openings, including to respond to
15 extreme weather;
16 “(kk) deepening channels to
17 prevent flooding;
18 “(ll) increasing the size or
19 number of drainage structures;
20 “(mm) installing seismic ret-
21 rofits on bridges;
22 “(nn) adding scour protec-
23 tion at bridges;
24 “(oo) adding scour, stream
25 stability, coastal, and other hy-

1 draulic countermeasures, includ-
2 ing spur dikes; and

3 “(pp) any other protective
4 features, including natural infra-
5 structure, as determined by the
6 Secretary.

7 “(iii) PRIORITY.—The Secretary shall
8 prioritize a resilience improvement grant to
9 an eligible entity if—

10 “(I) the Secretary determines—

11 “(aa) the benefits of the eli-
12 gible activity proposed to be car-
13 ried out by the eligible entity ex-
14 ceed the costs of the activity; and

15 “(bb) there is a need to ad-
16 dress the vulnerabilities of infra-
17 structure assets of the eligible
18 entity with a high risk of, and
19 impacts associated with, failure
20 due to the impacts of weather
21 events, natural disasters, or
22 changing conditions, such as sea
23 level rise and increased flood
24 risk; or

1 “(II) the eligible activity pro-
2 posed to be carried out by the eligible
3 entity is included in the applicable re-
4 silience improvement plan under sub-
5 section (f)(2).

6 “(B) COMMUNITY RESILIENCE AND EVAC-
7 UATION ROUTE GRANTS.—

8 “(i) IN GENERAL.—Using funds made
9 available for purposes under this sub-
10 section, the Secretary shall provide com-
11 munity resilience and evacuation route
12 grants to eligible entities to carry out 1 or
13 more eligible activities under clause (ii).

14 “(ii) ELIGIBLE ACTIVITIES.—An eligi-
15 ble entity may use a community resilience
16 and evacuation route grant under this sub-
17 paragraph for 1 or more projects that
18 strengthen and protect evacuation routes
19 that are essential for providing and sup-
20 porting evacuations caused by emergency
21 events, including a project that—

22 “(I) is an eligible activity under
23 subparagraph (A)(ii), if that eligible
24 activity will improve an evacuation
25 route;

1 “(II) ensures the ability of the
2 evacuation route to provide safe pas-
3 sage during an evacuation and re-
4 duces the risk of damage to evacu-
5 ation routes as a result of future
6 emergency events, including restoring
7 or replacing existing evacuation routes
8 that are in poor condition or not de-
9 signed to meet the anticipated de-
10 mand during an emergency event, and
11 including steps to protect routes from
12 mud, rock, or other debris slides;

13 “(III) if the Secretary determines
14 that existing evacuation routes are not
15 sufficient to adequately facilitate evac-
16 uations, including the transportation
17 of emergency responders and recovery
18 resources, expands the capacity of
19 evacuation routes to swiftly and safely
20 accommodate evacuations, including
21 installation of—

22 “(aa) communications and
23 intelligent transportation system
24 equipment and infrastructure;

1 “(bb) counterflow measures;
2 or
3 “(cc) shoulders;
4 “(IV) is for the construction of—
5 “(aa) new or redundant
6 evacuation routes, if the Sec-
7 retary determines that existing
8 evacuation routes are not suffi-
9 cient to adequately facilitate
10 evacuations, including the trans-
11 portation of emergency respond-
12 ers and recovery resources; or
13 “(bb) sheltering facilities
14 that are functionally connected to
15 an eligible project;
16 “(V) is for the acquisition of
17 evacuation route or traffic incident
18 management equipment, vehicles, or
19 signage; or
20 “(VI) will ensure access or serv-
21 ice to critical destinations, including
22 hospitals and other medical or emer-
23 gency service facilities, major employ-
24 ers, critical manufacturing centers,

1 ports and intermodal facilities, utili-
2 ties, and Federal facilities.

3 “(iii) PRIORITY.—The Secretary shall
4 prioritize community resilience and evacu-
5 ation route grants under this subpara-
6 graph for eligible activities that are cost-ef-
7 fective, as determined by the Secretary,
8 taking into account—

9 “(I) current and future
10 vulnerabilities to an evacuation route
11 due to future occurrence or recurrence
12 of emergency events that are likely to
13 occur in the geographic area in which
14 the evacuation route is located; and

15 “(II) projected changes in devel-
16 opment patterns, demographics, and
17 extreme weather events based on the
18 best available evidence and analysis.

19 “(iv) CONSULTATION.—In providing
20 grants for community resilience and evacu-
21 ation routes under this subparagraph, the
22 Secretary shall consult with the Adminis-
23 trator of the Federal Emergency Manage-
24 ment Agency, who shall provide technical

1 assistance to the Secretary and to eligible
2 entities.

3 “(C) AT-RISK COASTAL INFRASTRUCTURE
4 GRANTS.—

5 “(i) DEFINITION OF COASTAL
6 STATE.—In this subparagraph, the term
7 ‘coastal State’ means—

8 “(I) a State in, or bordering on,
9 the Atlantic, Pacific, or Arctic Ocean,
10 the Gulf of Mexico, Long Island
11 Sound, or 1 or more of the Great
12 Lakes;

13 “(II) the United States Virgin Is-
14 lands;

15 “(III) Guam;

16 “(IV) American Samoa;

17 “(V) the Commonwealth of the
18 Northern Mariana Islands; and

19 “(VI) Puerto Rico.

20 “(ii) GRANTS.—Using funds made
21 available for purposes under this sub-
22 section, the Secretary shall provide at-risk
23 coastal infrastructure grants to eligible en-
24 tities in coastal States to carry out 1 or
25 more eligible activities under clause (iii).

1 “(iii) ELIGIBLE ACTIVITIES.—An eli-
2 gible entity may use an at-risk coastal in-
3 frastructure grant under this subpara-
4 graph for strengthening, stabilizing, hard-
5 ening, elevating, relocating, or otherwise
6 enhancing the resilience of highway and
7 non-rail infrastructure, including bridges,
8 roads, pedestrian walkways, and bicycle
9 lanes, and associated infrastructure, such
10 as culverts and tide gates, that are subject
11 to, or face increased long-term future risks
12 of, a weather event, a natural disaster, or
13 changing conditions, including coastal
14 flooding, coastal erosion, wave action,
15 storm surge, or sea level rise, in order to
16 improve transportation and public safety
17 and to reduce costs by avoiding larger fu-
18 ture maintenance or rebuilding costs.

19 “(iv) CRITERIA.—The Secretary shall
20 provide at-risk coastal infrastructure
21 grants under this subparagraph for a
22 project—

23 “(I) that addresses the risks
24 from a current or future weather
25 event or natural disaster, including

1 coastal flooding, coastal erosion, wave
2 action, storm surge, or sea level rise;
3 and

4 “(II) that reduces long-term in-
5 frastructure costs by avoiding larger
6 future maintenance or rebuilding
7 costs.

8 “(v) COASTAL BENEFITS.—In addi-
9 tion to the criteria under clause (iv), for
10 the purpose of providing at-risk coastal in-
11 frastructure grants under this subpara-
12 graph, the Secretary shall evaluate the ex-
13 tent to which a project will provide—

14 “(I) access to coastal homes,
15 businesses, communities, and other
16 critical infrastructure, including ac-
17 cess by first responders and other
18 emergency personnel; or

19 “(II) access to a designated evac-
20 uation route.

21 “(5) GRANT REQUIREMENTS.—

22 “(A) SOLICITATIONS FOR GRANTS.—In
23 providing grants under this subsection, the Sec-
24 retary shall conduct a transparent and competi-
25 tive national solicitation process to select eligi-

1 ble projects to receive grants under paragraph
2 (3) and subparagraphs (A), (B), and (C) of
3 paragraph (4).

4 “(B) APPLICATIONS.—

5 “(i) IN GENERAL.—To be eligible to
6 receive a grant under paragraph (3) or
7 subparagraph (A), (B), or (C) of para-
8 graph (4), an eligible entity shall submit to
9 the Secretary an application in such form,
10 at such time, and containing such informa-
11 tion as the Secretary determines to be nec-
12 essary.

13 “(ii) PROJECTS IN CERTAIN AREAS.—
14 If a project is proposed to be carried out
15 by the eligible entity, in whole or in part,
16 within a base floodplain, the eligible entity
17 shall—

18 “(I) as part of the application,
19 identify the floodplain in which the
20 project is to be located and disclose
21 that information to the Secretary; and

22 “(II) indicate in the application
23 whether, if selected, the eligible entity
24 will implement 1 or more components
25 of the risk mitigation plan under sec-

1 tion 322 of the Robert T. Stafford
2 Disaster Relief and Emergency Assist-
3 ance Act (42 U.S.C. 5165) with re-
4 spect to the area.

5 “(C) ELIGIBILITIES.—The Secretary may
6 make a grant under paragraph (3) or subpara-
7 graph (A), (B), or (C) of paragraph (4) only
8 for—

9 “(i) a highway project eligible for as-
10 sistance under this title;

11 “(ii) a public transportation facility or
12 service eligible for assistance under chapter
13 53 of title 49; or

14 “(iii) a facility or service for intercity
15 rail passenger transportation (as defined in
16 section 24102 of title 49).

17 “(D) SYSTEM RESILIENCE.—A project for
18 which a grant is provided under paragraph (3)
19 or subparagraph (A), (B), or (C) of paragraph
20 (4) may include the use of natural infrastruc-
21 ture or the construction or modification of
22 storm surge, flood protection, or aquatic eco-
23 system restoration elements that the Secretary
24 determines are functionally connected to a
25 transportation improvement, such as—

1 “(i) increasing marsh health and total
2 area adjacent to a highway right-of-way to
3 promote additional flood storage;

4 “(ii) upgrades to and installation of
5 culverts designed to withstand 100-year
6 flood events;

7 “(iii) upgrades to and installation of
8 tide gates to protect highways; and

9 “(iv) upgrades to and installation of
10 flood gates to protect tunnel entrances.

11 “(E) FEDERAL COST SHARE.—

12 “(i) PLANNING GRANT.—The Federal
13 share of the cost of a planning activity car-
14 ried out using a planning grant under
15 paragraph (3) shall be 100 percent.

16 “(ii) RESILIENCE GRANTS.—

17 “(I) IN GENERAL.—Except as
18 provided in subclause (II) and sub-
19 section (f)(1), the Federal share of
20 the cost of a project carried out using
21 a grant under subparagraph (A), (B),
22 or (C) of paragraph (4) shall not ex-
23 ceed 80 percent of the total project
24 cost.

1 “(II) TRIBAL PROJECTS.—On
2 the determination of the Secretary,
3 the Federal share of the cost of a
4 project carried out using a grant
5 under subparagraph (A), (B), or (C)
6 of paragraph (4) by an Indian tribe
7 (as defined in section 207(m)(1)) may
8 be up to 100 percent.

9 “(iii) NON-FEDERAL SHARE.—The eli-
10 gible entity may use Federal funds other
11 than Federal funds provided under this
12 subsection to meet the non-Federal cost
13 share requirement for a project carried out
14 with a grant under this subsection.

15 “(F) ELIGIBLE PROJECT COSTS.—

16 “(i) RESILIENCE GRANT PROJECTS.—
17 Eligible project costs for activities funded
18 with a grant under subparagraph (A), (B),
19 or (C) of paragraph (4) may include the
20 costs of—

21 “(I) development phase activities,
22 including planning, feasibility anal-
23 ysis, revenue forecasting, environ-
24 mental review, preliminary engineer-

1 ing and design work, and other
2 preconstruction activities; and

3 “(II) construction, reconstruc-
4 tion, rehabilitation, and acquisition of
5 real property (including land related
6 to the project and improvements to
7 land), environmental mitigation, con-
8 struction contingencies, acquisition of
9 equipment directly related to improv-
10 ing system performance, and oper-
11 ational improvements.

12 “(ii) PLANNING GRANTS.—Eligible
13 project costs for activities funded with a
14 grant under paragraph (3) may include the
15 costs of development phase activities, in-
16 cluding planning, feasibility analysis, rev-
17 enue forecasting, environmental review,
18 preliminary engineering and design work,
19 other preconstruction activities, and other
20 activities consistent with carrying out the
21 purposes of that paragraph.

22 “(G) LIMITATIONS.—An eligible entity
23 that receives a grant under subparagraph (A),
24 (B), or (C) of paragraph (4)—

1 “(i) may use not more than 25 per-
2 cent of the amount of the grant for the
3 construction of new capacity so long as
4 such inclusion is cost-effective and is di-
5 rectly related to the underlying project;
6 and

7 “(ii) may use not more than 10 per-
8 cent of the amount of the grant for activi-
9 ties described in subparagraph (F)(i)(I).

10 “(H) DISTRIBUTION OF GRANTS.—

11 “(i) IN GENERAL.—Subject to the
12 availability of funds, an eligible entity may
13 request and the Secretary may distribute
14 funds for a grant under this subsection on
15 a multiyear basis, as the Secretary deter-
16 mines to be necessary.

17 “(ii) RURAL SET-ASIDE.—Of the
18 amounts made available to carry out this
19 subsection for each fiscal year, the Sec-
20 retary shall use not less than 25 percent
21 for grants for projects located in areas
22 that are outside an urbanized area with a
23 population of over 200,000.

24 “(iii) TRIBAL SET-ASIDE.—Of the
25 amounts made available to carry out this

1 subsection for each fiscal year, the Sec-
2 retary shall use not less than 2 percent for
3 grants to Indian tribes (as defined in sec-
4 tion 207(m)(1)).

5 “(iv) REALLOCATION.—For any fiscal
6 year, if the Secretary determines that the
7 amount described in clause (ii) or (iii) will
8 not be fully utilized for the grant described
9 in that clause, the Secretary may reallocate
10 the unutilized funds to provide grants to
11 other eligible entities under this subsection.

12 “(e) CONSULTATION.—In carrying out the program,
13 the Secretary shall—

14 “(1) consult with the Assistant Secretary of the
15 Army for Civil Works, the Administrator of the En-
16 vironmental Protection Agency, the Secretary of the
17 Interior, and the Secretary of Commerce; and

18 “(2) solicit technical support from the Adminis-
19 trator of the Federal Emergency Management Agen-
20 cy.

21 “(f) RESILIENCE IMPROVEMENT PLAN AND LOWER
22 NON-FEDERAL SHARE.—

23 “(1) FEDERAL SHARE REDUCTIONS.—

24 “(A) IN GENERAL.—A State that receives
25 funds under subsection (c) or an eligible entity

1 that receives a grant under subsection (d) shall
2 have the non-Federal share of a project carried
3 out with the funds or grant, as applicable, re-
4 duced by an amount described in subparagraph
5 (B) if the State or eligible entity meets the ap-
6 plicable requirements under that subparagraph.

7 “(B) AMOUNT OF REDUCTIONS.—

8 “(i) RESILIENCE IMPROVEMENT
9 PLAN.—Subject to clause (iii), the amount
10 of the non-Federal share of the costs of a
11 project carried out with funds under sub-
12 section (c) or a grant under subsection (d)
13 shall be reduced by 7 percentage points
14 if—

15 “(I) in the case of a State or an
16 eligible entity that is a State or a
17 metropolitan planning organization,
18 the State or eligible entity has—

19 “(aa) developed a resilience
20 improvement plan in accordance
21 with this subsection; and

22 “(bb) prioritized the project
23 on that resilience improvement
24 plan; and

1 “(II) in the case of an eligible en-
2 tity not described in subclause (I), the
3 eligible entity is located in a State or
4 an area served by a metropolitan
5 planning organization that has—

6 “(aa) developed a resilience
7 improvement plan in accordance
8 with this subsection; and

9 “(bb) prioritized the project
10 on that resilience improvement
11 plan.

12 “(ii) INCORPORATION OF RESILIENCE
13 IMPROVEMENT PLAN IN OTHER PLAN-
14 NING.—Subject to clause (iii), the amount
15 of the non-Federal share of the cost of a
16 project carried out with funds under sub-
17 section (c) or a grant under subsection (d)
18 shall be reduced by 3 percentage points
19 if—

20 “(I) in the case of a State or an
21 eligible entity that is a State or a
22 metropolitan planning organization,
23 the resilience improvement plan devel-
24 oped in accordance with this sub-
25 section has been incorporated into the

1 metropolitan transportation plan
2 under section 134 or the long-range
3 statewide transportation plan under
4 section 135, as applicable; and

5 “(II) in the case of an eligible en-
6 tity not described in subclause (I), the
7 eligible entity is located in a State or
8 an area served by a metropolitan
9 planning organization that incor-
10 porated a resilience improvement plan
11 into the metropolitan transportation
12 plan under section 134 or the long-
13 range statewide transportation plan
14 under section 135, as applicable.

15 “(iii) LIMITATIONS.—

16 “(I) MAXIMUM REDUCTION.—A
17 State or eligible entity may not receive
18 a reduction under this paragraph of
19 more than 10 percentage points for
20 any single project carried out with
21 funds under subsection (c) or a grant
22 under subsection (d).

23 “(II) NO NEGATIVE NON-FED-
24 ERAL SHARE.—A reduction under this
25 paragraph shall not reduce the non-

1 Federal share of the costs of a project
2 carried out with funds under sub-
3 section (c) or a grant under sub-
4 section (d) to an amount that is less
5 than zero.

6 “(2) PLAN CONTENTS.—A resilience improve-
7 ment plan referred to in paragraph (1)—

8 “(A) shall be for the immediate and long-
9 range planning activities and investments of the
10 State or metropolitan planning organization
11 with respect to resilience;

12 “(B) shall demonstrate a systemic ap-
13 proach to transportation system resilience and
14 be consistent with and complementary of the
15 State and local mitigation plans required under
16 section 322 of the Robert T. Stafford Disaster
17 Relief and Emergency Assistance Act (42
18 U.S.C. 5165);

19 “(C) shall—

20 “(i) include a risk-based assessment
21 of vulnerabilities of transportation assets
22 and systems to current and future extreme
23 weather events and natural disasters, in-
24 cluding severe storms, flooding, tornados,
25 drought, levee and dam failures, wildfire,

1 landslides, sea level rise, extreme weather
2 events, including extreme temperatures,
3 and earthquakes;

4 “(ii) designate evacuation routes and
5 strategies, including multimodal facilities,
6 designated with consideration for individ-
7 uals without access to personal vehicles;

8 “(iii) plan for response to anticipated
9 emergencies, including plans for the mobil-
10 ity of—

11 “(I) emergency response per-
12 sonnel and equipment; and

13 “(II) access to emergency serv-
14 ices, including for vulnerable or dis-
15 advantaged populations;

16 “(iv) describe the resilience improve-
17 ment policies, including strategies, land-use
18 and zoning changes, investments in natural
19 infrastructure, or performance measures
20 that will inform the transportation invest-
21 ment decisions of the State or metropolitan
22 planning organization with the goal of in-
23 creasing resilience;

24 “(v) include an investment plan
25 that—

1 “(I) includes a list of priority
2 projects; and

3 “(II) describes how funds pro-
4 vided by a grant under the program
5 would be invested and matched, which
6 shall not be subject to fiscal con-
7 straint requirements; and

8 “(vi) use science and data and indi-
9 cate the source of data and methodologies;
10 and

11 “(D) shall, as appropriate—

12 “(i) include a description of how the
13 plan will improve the ability of the State or
14 metropolitan planning organization—

15 “(I) to respond promptly to the
16 impacts of weather events and natural
17 disasters; and

18 “(II) to be prepared for changing
19 conditions, such as sea level rise and
20 increased flood risk;

21 “(ii) describe the codes, standards,
22 and regulatory framework, if any, adopted
23 and enforced to ensure resilience improve-
24 ments within the impacted area of pro-

1 posed projects included in the resilience
2 improvement plan;

3 “(iii) consider the benefits of com-
4 bining hard infrastructure assets, and nat-
5 ural infrastructure, through coordinated
6 efforts by the Federal Government and the
7 States;

8 “(iv) assess the resilience of other
9 community assets, including buildings and
10 housing, emergency management assets,
11 and energy, water, and communication in-
12 frastructure;

13 “(v) use a long-term planning period;
14 and

15 “(vi) include such other information
16 as the eligible entity considers appropriate.

17 “(3) NO NEW PLANNING REQUIREMENTS.—
18 Nothing in this section requires a metropolitan plan-
19 ning organization or a State to develop a resilience
20 improvement plan or to include a resilience improve-
21 ment plan under the metropolitan transportation
22 plan under section 134 or the long-range statewide
23 transportation plan under section 135, as applicable,
24 of the metropolitan planning organization or State.

25 “(g) MONITORING.—

1 “(1) IN GENERAL.—Not later than 18 months
2 after the date of enactment of this section, the Sec-
3 retary, in consultation with the officials described in
4 subsection (e), shall—

5 “(A) establish, for the purpose of evalu-
6 ating the effectiveness and impacts of projects
7 carried out under the program—

8 “(i) subject to paragraph (2), trans-
9 portation and any other metrics as the
10 Secretary determines to be necessary; and

11 “(ii) procedures for monitoring and
12 evaluating projects based on those metrics;
13 and

14 “(B) select a representative sample of
15 projects to evaluate based on the metrics and
16 procedures established under subparagraph (A).

17 “(2) NOTICE.—Before adopting any metrics de-
18 scribed in paragraph (1), the Secretary shall—

19 “(A) publish the proposed metrics in the
20 Federal Register; and

21 “(B) provide to the public an opportunity
22 for comment on the proposed metrics.

23 “(h) REPORTS.—

24 “(1) REPORTS FROM ELIGIBLE ENTITIES.—Not
25 later than 1 year after the date on which a project

1 carried out under the program is completed, the en-
2 tity that carried out the project shall submit to the
3 Secretary a report on the results of the project and
4 the use of the funds received under the program.

5 “(2) REPORTS TO CONGRESS.—

6 “(A) ANNUAL REPORTS.—The Secretary
7 shall submit to the Committee on Transpor-
8 tation and Infrastructure of the House of Rep-
9 resentatives and the Committee on Environ-
10 ment and Public Works of the Senate, and pub-
11 lish on the website of the Department of Trans-
12 portation, an annual report that describes the
13 implementation of the program during the pre-
14 ceeding calendar year, including—

15 “(i) each project for which a grant
16 was provided under the program;

17 “(ii) information relating to project
18 applications received;

19 “(iii) the manner in which the con-
20 sultation requirements were implemented
21 under this section;

22 “(iv) recommendations to improve the
23 administration of the program, including
24 whether assistance from additional or

1 fewer agencies to carry out the program is
2 appropriate;

3 “(v) the period required to disburse
4 grant funds to recipients based on applica-
5 ble Federal coordination requirements; and

6 “(vi) a list of facilities that repeatedly
7 require repair or reconstruction due to
8 emergency events.

9 “(B) FINAL REPORT.—Not later than 5
10 years after the date of enactment of the Surface
11 Transportation Advanced through Reform,
12 Technology, & Efficient Review Act, the Sec-
13 retary shall submit to Congress a report that
14 includes the results of the reports submitted
15 under subparagraph (A). The Secretary shall
16 use not more than 5 percent of the amounts
17 made available to carry out the program for
18 each fiscal year for the costs of administering
19 the program, including monitoring and evalua-
20 tion under subsection (g).

21 “(C) CONSULTATION.—In developing guid-
22 ance and regulations, and in providing grants
23 for under this section, the Secretary shall con-
24 sult with the Administrator of the Federal
25 Emergency Management Agency, who shall pro-

1 vide technical assistance to the Secretary and to
2 eligible entities.”.

3 (b) CLERICAL AMENDMENT.—The analysis for chap-
4 ter 1 of title 23, United States Code, is amended by insert-
5 ing after the item relating to section **[178]** the following:

“**[____]**. Promoting Resilient Operations for Transformative, Efficient, and
Cost-saving Transportation (PROTECT) grant program.”.

6 **SEC. ____ . NATIONAL HIGHWAY PERFORMANCE PROGRAM.**

7 Section 119 of title 23, United States Code, is
8 amended—

9 (1) in subsection (b)—

10 (A) in paragraph (2) by striking “and” at
11 the end;

12 (B) in paragraph (3) by striking the period
13 at the end and inserting “; and”; and

14 (C) by adding at the end the following:

15 “(4) to provide support for measures to in-
16 crease the resiliency of Federal-aid highways and
17 bridges on and off the National Highway System to
18 mitigate the impacts of sea level rise, extreme weath-
19 er events, flooding, or other natural disasters.”; and

20 (2) by adding at the end the following:

21 “(k) PROTECTIVE FEATURES.—

22 “(1) IN GENERAL.—A State may use not more
23 than 15 percent of the funds apportioned to the
24 State under section 104(b)(1) for each fiscal year

1 for 1 or more protective features on a Federal-aid
2 highway or bridge off the National Highway System,
3 if the protective feature is designed to mitigate the
4 risk of recurring damage, or the cost of future re-
5 pairs, from extreme weather events, flooding, or
6 other natural disasters.

7 “(2) PROTECTIVE FEATURES DESCRIBED.—A
8 protective feature referred to in paragraph (1) may
9 include—

10 “(A) raising roadway grades;

11 “(B) relocating roadways in a base flood-
12 plain to higher ground above projected flood
13 elevation levels or away from slide prone areas;

14 “(C) stabilizing slide areas;

15 “(D) stabilizing slopes;

16 “(E) installing riprap;

17 “(F) lengthening or raising bridges to in-
18 crease waterway openings;

19 “(G) deepening channels to prevent flood-
20 ing;

21 “(H) increasing the size or number of
22 drainage structures;

23 “(I) replacing culverts with bridges or
24 upsizing culverts;

25 “(J) repairing or maintaining tide gates;

1 “(K) installing seismic retrofits on bridges;

2 “(L) adding scour protection at bridges;

3 “(M) adding scour, stream stability, coast-
4 al, or other hydraulic countermeasures, includ-
5 ing spur dikes;

6 “(N) the use of natural infrastructure to
7 mitigate the risk of recurring damage or the
8 cost of future repair from extreme weather
9 events, flooding, or other natural disasters; and

10 “(O) any other features that mitigate the
11 risk of recurring damage or the cost of future
12 repair as a result of extreme weather events,
13 flooding, or other natural disasters, as deter-
14 mined by the Secretary.

15 “(3) SAVINGS PROVISION.—Nothing in this sub-
16 section limits the ability of a State to carry out a
17 project otherwise eligible under subsection (d) using
18 funds apportioned under section 104(b)(1).”.

19 **SEC. ____. RESILIENCY IN TRANSIT.**

20 Section 5324 of title 49, United States Code, is
21 amended by—

22 (1) striking “and” at the end of subsection
23 (b)(1);

24 (2) striking the period at the end of subsection
25 (b)(2)(B) and inserting “; and”; and

1 (3) by adding at the end of subsection (b) the
2 following new paragraph:

3 “(3) mitigation projects and activities that the
4 Secretary determines are cost effective and which
5 substantially reduce the risk of, or increase resilience
6 to, future damage, hardship, or loss, related to
7 equipment and facilities of a public transportation
8 system operating in the United States or on an In-
9 dian reservation that the Secretary determines is in
10 danger of suffering serious damage, or has suffered
11 serious damage, as a result of an emergency.”.

12 **SEC. ____ . HIGHWAY EMERGENCY RELIEF AND RESILIENCY.**

13 (a) IN GENERAL.—Section 125 of title 23, United
14 States Code, is amended—

15 (1) in subsection (a)(1), by inserting “wildfire,
16 sea level rise,” after “severe storm”;

17 (2) by striking subsection (b) and inserting the
18 following:

19 “(b) RESTRICTION ON ELIGIBILITY.—Funds under
20 this section shall not be used for the repair or reconstruc-
21 tion of a bridge that has been permanently closed to all
22 vehicular traffic by the Federal, State, Tribal, or respon-
23 sible local official because of imminent danger of collapse
24 due to a structural deficiency or physical deterioration.”;
25 and

1 (3) in subsection (d)—

2 (A) in paragraph (2)(A)—

3 (i) by striking the period at the end
4 and inserting “; and”;

5 (ii) by striking “a facility that meets
6 the current” and inserting the following:

7 “a facility that—

8 “(i) meets the current”; and

9 (iii) by adding at the end the fol-
10 lowing:

11 “(ii) incorporates economically justifi-
12 able improvements designed and dem-
13 onstrated to mitigate and reduce the risk
14 of recurring damage from extreme weather
15 events, flooding, or other natural disas-
16 ters.”;

17 (B) by redesignating paragraphs (3)
18 through (5) as paragraphs (4) through (6), re-
19 spectively; and

20 (C) by inserting after paragraph (2) the
21 following:

22 “(3) PROTECTIVE FEATURES.—

23 “(A) IN GENERAL.—The cost of an im-
24 provement that is part of a project under this
25 section shall be an eligible expense under this

1 section if the improvement is a protective fea-
2 ture that is designed and demonstrated to miti-
3 gate and reduce the risk of recurring damage,
4 or the cost of future repair, from extreme
5 weather events, flooding, or other natural disas-
6 ters.

7 “(B) PROTECTIVE FEATURES DE-
8 SCRIBED.—A protective feature referred to in
9 subparagraph (A) may include—

10 “(i) raising roadway grades;

11 “(ii) relocating roadways in a base
12 floodplain to higher ground above projected
13 flood elevation levels or away from slide
14 prone areas;

15 “(iii) stabilizing slide areas;

16 “(iv) stabilizing slopes;

17 “(v) installing riprap;

18 “(vi) lengthening or raising bridges to
19 increase waterway openings;

20 “(vii) deepening channels to prevent
21 flooding;

22 “(viii) increasing the size or number
23 of drainage structures;

24 “(ix) replacing culverts with bridges
25 or upsizing culverts;

1 “(x) repairing or maintaining tide
2 gates;

3 “(xi) installing seismic retrofits on
4 bridges;

5 “(xii) adding scour protection at
6 bridges;

7 “(xiii) adding scour, stream stability,
8 coastal, and other hydraulic counter-
9 measures, including spur dikes;

10 “(xiv) the use of natural infrastruc-
11 ture to mitigate the risk of recurring dam-
12 age or the cost of future repair from ex-
13 treme weather events, flooding, or other
14 natural disasters; and

15 “(xv) any other features that mitigate
16 the risk of recurring damage or the cost of
17 future repair as a result of extreme weath-
18 er events, flooding, or other natural disas-
19 ters, as determined by the Secretary.”.

20 (b) EMERGENCY RELIEF PROJECTS.—

21 (1) DEFINITION OF EMERGENCY RELIEF
22 PROJECT.—In this section, the term “emergency re-
23 lief project” means a project carried out under the
24 emergency relief program under section 125 of title
25 23, United States Code.

1 (2) IMPROVING THE EMERGENCY RELIEF PRO-
2 GRAM.—Not later than 90 days after the date of en-
3 actment of this Act, the Secretary shall—

4 (A) revise the emergency relief manual of
5 the Federal Highway Administration—

6 (i) to include and reflect the definition
7 of the term “resilience” (as defined in sec-
8 tion 101(a) of title 23, United States
9 Code);

10 (ii) to ensure resilience measures are
11 cost effective and substantially reduce the
12 risk of, or increase resilience to, future
13 damage, hardship, loss, or suffering in any
14 area affected by a declared disaster;

15 (iii) to identify procedures that States
16 may use to incorporate resilience into
17 emergency relief projects; and

18 (iv) to encourage the use of Complete
19 Streets design principles and consideration
20 of access for moderate- and low-income
21 families impacted by a declared disaster;

22 (B) develop best practices for improving
23 the use of resilience in—

1 (i) the emergency relief program
2 under section 125 of title 23, United
3 States Code; and

4 (ii) emergency relief efforts;

5 (C) provide to division offices of the Fed-
6 eral Highway Administration and State depart-
7 ments of transportation information on the best
8 practices developed under paragraph (2); and

9 (D) develop and implement a process to
10 track—

11 (i) the consideration of resilience as
12 part of the emergency relief program under
13 section 125 of title 23, United States
14 Code; and

15 (ii) the measurement of risk reduction
16 and costs of emergency relief projects.

17 (3) CONSULTATION.—In carrying out actions
18 pursuant to paragraph (2), the Secretary shall con-
19 sult with the Administrator of the Federal Emer-
20 gency Management Agency to ensure resiliency guid-
21 ance and activities are consistent with and do not
22 conflict with other resiliency and mitigation activities
23 and priorities.

1 **SEC. ____ . HIGHWAY RESILIENCY INCENTIVES.**

2 Section 120(c) of title 23, United States Code, is
3 amended by adding at the end the following:

4 “(4) PROTECTIVE FEATURES.—

5 “(A) IN GENERAL.—Notwithstanding any
6 other provision of law, the Federal share pay-
7 able for the cost of a protective feature on a
8 Federal-aid highway or bridge project under
9 this title may be up to 100 percent, at the dis-
10 cretion of the State, if the protective feature is
11 an improvement designed and demonstrated to
12 mitigate and reduce the risk of recurring dam-
13 age, or the cost of future repair, from extreme
14 weather events, flooding, or other natural disas-
15 ters.

16 “(B) PROTECTIVE FEATURES DE-
17 SCRIBED.—A protective feature referred to in
18 subparagraph (A) may include—

19 “(i) raising roadway grades;

20 “(ii) relocating roadways in a base
21 floodplain to higher ground above projected
22 flood elevation levels or away from slide
23 prone areas;

24 “(iii) stabilizing slide areas;

25 “(iv) stabilizing slopes;

26 “(v) installing riprap;

1 “(vi) lengthening or raising bridges to
2 increase waterway openings;

3 “(vii) deepening channels to prevent
4 flooding;

5 “(viii) increasing the size or number
6 of drainage structures;

7 “(ix) replacing culverts with bridges
8 or upsizing culverts;

9 “(x) repairing or maintaining tide
10 gates;

11 “(xi) installing seismic retrofits on
12 bridges;

13 “(xii) adding scour protection at
14 bridges;

15 “(xiii) adding scour, stream stability,
16 coastal, and other hydraulic counter-
17 measures, including spur dikes;

18 “(xiv) the use of natural infrastruc-
19 ture to mitigate and reduce the risk of re-
20 curring damage or the cost of future repair
21 from extreme weather events, flooding, or
22 other natural disasters; and

23 “(xv) any other features that mitigate
24 and reduce the risk of recurring damage or
25 the cost of future repair as a result of ex-

1 treme weather events, flooding, or other
2 natural disasters, as determined by the
3 Secretary.”.

4 **SEC. ____ . GUIDANCE ON INUNDATED AND SUBMERGED**
5 **ROADS.**

6 Upon issuance of guidance issued pursuant to section
7 1228 of the Disaster Recovery Reform Act of 2018 (Public
8 Law 115–254), the Administrator of the Federal Highway
9 Administration, in consultation with the Administrator of
10 the Federal Emergency Management Agency, shall review
11 such guidance and issue guidance regarding repair, res-
12 toration, and replacement of inundated and submerged
13 roads damaged or destroyed by a major disaster declared
14 pursuant to the Robert T. Stafford Disaster Relief and
15 Emergency Assistance Act (42 U.S.C. 5121 et seq.) with
16 respect to roads eligible for assistance under Federal
17 Highway Administration programs.

18 **SEC. ____ . GUIDANCE ON EVACUATION ROUTES.**

19 (a) IN GENERAL.—

20 (1) GUIDANCE.—The Administrator of the Fed-
21 eral Highway Administration, in coordination with
22 the Administrator of the Federal Emergency Man-
23 agement Agency and consistent with guidance issued
24 by the Federal Emergency Management Agency pur-
25 suant to section 1209 of the Disaster Recovery Re-

1 form Act of 2018 (Public Law 115–254), shall re-
2 vise existing guidance or issue new guidance as ap-
3 propriate for State, local, and Indian Tribal govern-
4 ments regarding the design, construction, mainte-
5 nance, and repair of evacuation routes.

6 (2) CONSIDERATIONS.—In revising or issuing
7 guidance under subsection (a)(1), the Administrator
8 of the Federal Highway Administration shall con-
9 sider—

10 (A) methods that assist evacuation routes
11 to—

12 (i) withstand likely risks to viability,
13 including flammability and hydrostatic
14 forces;

15 (ii) improve durability, strength (in-
16 cluding the ability to withstand tensile
17 stresses and compressive stresses), and
18 sustainability; and

19 (iii) provide for long-term cost sav-
20 ings;

21 (B) the ability of evacuation routes to ef-
22 fectively manage contraflow operations;

23 (C) for evacuation routes on public lands,
24 the viewpoints of the applicable Federal land
25 management agency regarding emergency oper-

1 ations, sustainability, and resource protection;
2 and

3 (D) such other items the Administrator of
4 the Federal Highway Administration considers
5 appropriate.

6 (3) REPORT.—In the case in which the Admin-
7 istrator of the Federal Highway Administration, in
8 consultation with the Administrator of the Federal
9 Emergency Management Agency, concludes existing
10 guidance addresses the considerations in paragraph
11 (2), The Administrator of the Federal Highway Ad-
12 ministration shall submit to the Committee on
13 Transportation and Infrastructure of the House of
14 Representatives and the Committee on Environment
15 and Public Works of the Senate a detailed report de-
16 scribing how existing guidance addresses such con-
17 siderations.

18 (b) STUDY.—The Administrator of the Federal High-
19 way Administration, in coordination with the Adminis-
20 trator of the Federal Emergency Management Agency and
21 State, local, territorial, and Indian tribal governments,
22 shall—

23 (1) conduct a study of the adequacy of available
24 evacuation routes to accommodate the flow of evac-
25 uees; and

1 (2) submit recommendations to Congress on
2 how to help with anticipated evacuation route flow,
3 based on the study conducted under paragraph (1).

4 **SEC. ____ . DEFINITIONS.**

5 Section 101(a) of title 23, United States Code, is
6 amended—

7 (1) in paragraph (4)(A) by inserting “assessing
8 resilience,” after “surveying,”; and

9 (2) by adding at the end the following:

10 “(35) RESILIENCE.—Unless otherwise specified,
11 the term ‘resilience’, with respect to a project, means
12 a project with the ability to anticipate, prepare for,
13 or adapt to conditions or mitigate against, with-
14 stand, respond to, or recover rapidly from interrup-
15 tions, including the ability—

16 “(A) to resist hazards, mitigate against,
17 reduce costs associated with or withstand im-
18 pacts from weather events and natural disas-
19 ters; or

20 “(B) to have the absorptive capacity,
21 adaptive capacity, and recoverability to decrease
22 project vulnerability to weather events or other
23 natural disasters.”.

1 **SEC. ____ . UNIVERSITY TRANSPORTATION CENTERS.**

2 Section 5505 of title 49, United States Code, is
3 amended—

4 (1) in subsection (a)(2) by adding at the end
5 the following:

6 “(D) To consider the ability to anticipate,
7 prepare for, or adapt to conditions or with-
8 stand, increase resiliency to, reduce costs re-
9 lated to, respond to, or recover rapidly from
10 disruptions resulting from extreme weather
11 events and natural disasters”;

12 (2) in subsection (b)(4)(A) by striking “re-
13 search priorities identified in chapter 65.” and in-
14 serting the following: “following research priorities:

15 “(i) Improving the mobility of people
16 and goods.

17 “(ii) Reducing congestion.

18 “(iii) Promoting safety.

19 “(iv) Improving the durability and ex-
20 tending the life of transportation infra-
21 structure and the existing transportation
22 system.

23 “(v) Improving the ability to antici-
24 pate, prepare for, or adapt to conditions or
25 withstand, respond to, or recover rapidly
26 from disruptions resulting from extreme

1 weather events and natural disasters.”;
2 and

3 (3) in subsection (c)(4)—

4 (A) in subparagraph (C) by adding at the
5 end the following: “In awarding grants under
6 this section, the Secretary shall also select not
7 less than 1 grant recipient with each of the fol-
8 lowing focus areas:

9 “(i) Improving the ability to antici-
10 pate, prepare for, or adapt to conditions or
11 withstand, increase resiliency to, reduce
12 costs related to, respond to, or recover rap-
13 idly from disruptions resulting from ex-
14 treme weather events and natural disas-
15 ters.

16 “(ii) Developing innovative road de-
17 signs, materials, and restoration strategies
18 to better enhance the durability and struc-
19 tural integrity of roads and subgrade soils
20 that may become inundated during severe
21 weather events.

22 “(iii) Enhancing the viability and du-
23 rability of evacuation routes, including
24 ways to effectively manage contraflow op-
25 erations to minimize casualties.”; and

1 (B) by adding at the end the following:

2 “(D) CONSIDERATIONS FOR SELECTED IN-
3 STITUTIONS.—

4 “(i) IN GENERAL.—Tier 1 transpor-
5 tation centers awarded a grant under this
6 paragraph with a focus area described in
7 subparagraph (C) shall consider the fol-
8 lowing areas for research:

9 “(I) Developing new materials
10 and improving the performance and
11 resiliency of existing materials for the
12 construction of roads, bridges, rail,
13 and related transportation infrastruc-
14 ture.

15 “(II) Reducing local, state, fed-
16 eral, and tribal costs associated with
17 natural disasters and severe weather.

18 “(III) Innovative technologies
19 and approaches to pre-mitigate
20 against severe weather.

21 “(IV) The durability of roadways
22 and subgrade with respect to flamma-
23 bility and hydrostatic forces.

24 “(V) Strategies to mitigate the
25 costs associated with vulnerabilities in

1 federal evacuation routes, with respect
2 to overcrowding and inundation.

3 “(ii) ACTIVITIES.—A tier 1 transpor-
4 tation center receiving a grant under this
5 section with a focus area described in sub-
6 paragraph (C) may—

7 “(I) establish best practices;

8 “(II) develop modeling tools; and

9 “(III) carry out other activities
10 and develop technology that addresses
11 the planning considerations described
12 in clause (i).”.

13 **SEC. ____ . PRE-DISASTER HAZARD MITIGATION PILOT PRO-**
14 **GRAM.**

15 (a) IN GENERAL.—Section 125 of title 23, United
16 States Code, is amended by adding at the end the fol-
17 lowing:

18 “(h) PRE-DISASTER HAZARD MITIGATION PILOT
19 PROGRAM.—

20 “(1) IN GENERAL.—The Secretary shall estab-
21 lish a pre-disaster mitigation program for the pur-
22 pose of mitigating future hazards posed to Federal-
23 aid highways.

24 “(2) DISTRIBUTION OF FUNDS.—Every 6
25 months, the Secretary shall total the amount of

1 funds made available to each State, territory, Tribal,
2 or other eligible entity under the emergency relief
3 program during the preceding 6 months and remit
4 an additional 5 percent from the Highway Trust
5 Fund to those entities for eligible activities described
6 in paragraph (3).

7 “(3) ELIGIBLE ACTIVITIES.—Funds made avail-
8 able under subsection (h)(2) shall be used for miti-
9 gation projects and activities that the Secretary de-
10 termines are cost effective and which substantially
11 reduce the risk of, or increase resilience to, future
12 damage as a result of natural disasters, such as by
13 flood, hurricane, tidal wave, earthquake, severe
14 storm, or landslide by upgrading existing assets to
15 meet or exceed design standards adopted by the
16 Federal Highway Administration by means of the
17 following:

18 “(A) Relocating or elevating roadways.

19 “(B) Increasing the size or number of
20 drainage structures, including culverts.

21 “(C) Installing mitigation measures to pre-
22 vent the impairment of transportation assets as
23 a result of the intrusion of floodwaters.

24 “(D) Improving bridges to expand water
25 capacity and prevent flooding.

1 “(E) Deepening channels to prevent asset
2 inundation and improve drainage.

3 “(F) improving strength of natural fea-
4 tures adjacent to highway right-of-way to pro-
5 mote additional flood storage.

6 “(G) Installing or upgrading tide gates
7 and flood gates.

8 “(H) Stabilizing slide areas or slopes.

9 “(I) Installing seismic retrofits for bridges.

10 “(J) Adding scour protection at bridges.

11 “(K) Adding scour, stream stability, coast-
12 al, or other hydraulic countermeasures, includ-
13 ing riprap.

14 “(L) Installing intelligent transportation
15 system equipment to monitor infrastructure
16 quality.

17 “(M) Any other protective features as de-
18 termined by the Secretary.

19 “(4) REPORT.—The Secretary shall submit to
20 the Committee on Transportation and Infrastructure
21 of the House of Representatives and the Committee
22 on Environment and Public Works of the Senate an
23 annual report detailing—

24 “(A) a description of the activities carried
25 out under the pilot program;

1 “(B) an evaluation of the effectiveness of
2 the pilot program in meeting purposes described
3 in paragraph (1); and

4 “(C) policy recommendations to improve
5 the effectiveness of the pilot program.”.

6 (b) SUNSET.—The amendments made by this section
7 shall be repealed on the date that is 5 years after the date
8 of enactment of this Act.

