

**AMENDMENT TO THE AMENDMENT IN THE  
NATURE OF A SUBSTITUTE TO H.R. 2  
OFFERED BY MS. BROWNLEY OF CALIFORNIA**

Page 421, after line 15, insert the following:

1 **SEC. \_\_\_\_ . CLIMATE RESILIENT TRANSPORTATION INFRA-**  
2 **STRUCTURE STUDY.**

3 (a) CLIMATE RESILIENT TRANSPORTATION INFRA-  
4 STRUCTURE STUDY.—Not later than 180 days after the  
5 date of enactment of this Act, the Secretary of Transpor-  
6 tation shall enter into an agreement with the Transpor-  
7 tation Research Board of the National Academies to con-  
8 duct a study of the actions needed to ensure that Federal  
9 agencies are taking into account current and future cli-  
10 mate conditions in planning, designing, building, oper-  
11 ating, maintaining, investing in and upgrading any feder-  
12 ally funded transportation infrastructure investments.

13 (b) METHODOLOGIES.—In conducting the study, the  
14 Transportation Research Board shall build on the meth-  
15 odologies examined and recommended in—

16 (1) the 2018 report issued the American Soci-  
17 ety of Civil Engineers, titled “Climate-Resilient In-  
18 frastructure: Adaptive Design and Risk Manage-  
19 ment”; and

1           (2) the report issued by the California Climate-  
2           Safe Infrastructure Working Group, titled “Paying  
3           it Forward: The Path Toward Climate-Safe Infra-  
4           structure in California”.

5           (c) CONTENTS OF STUDY.—The study shall include  
6           specific recommendations regarding the following:

7           (1) Integrating scientific knowledge of projected  
8           climate change impacts, and other relevant data and  
9           information, into Federal infrastructure planning,  
10          design, engineering, construction, operation and  
11          maintenance.

12          (2) Addressing critical information gaps and  
13          challenges.

14          (3) Financing options to help fund climate-resil-  
15          ient infrastructure.

16          (4) A platform or process to facilitate commu-  
17          nication between climate scientists and other experts  
18          with infrastructure planners, engineers and other  
19          relevant experts.

20          (5) A stakeholder process to engage with rep-  
21          resentatives of State, local, tribal and community  
22          groups.

23          (6) A platform for tracking Federal funding of  
24          climate-resilient infrastructure.

1 (d) CONSIDERATIONS.—In carrying out the study,  
2 the Transportation Research Board shall determine the  
3 need for information related to climate resilient transpor-  
4 tation infrastructure by considering—

5 (1) the current informational and institutional  
6 barriers to integrating projected infrastructure risks  
7 posed by climate change into federal infrastructure  
8 planning, design, engineering, construction, oper-  
9 ation and maintenance;

10 (2) the critical information needed by engineers,  
11 planners and those charged with infrastructure up-  
12 grades and maintenance to better incorporate cli-  
13 mate change risks and impacts over the lifetime of  
14 projects;

15 (3) how to select an appropriate, adaptive engi-  
16 neering design for a range of future climate sce-  
17 narios as related to infrastructure planning and in-  
18 vestment;

19 (4) how to incentivize and incorporate systems  
20 thinking into engineering design to maximize the  
21 benefits of multiple natural functions and emissions  
22 reduction, as well as regional planning;

23 (5) how to take account of the risks of cas-  
24 cading infrastructure failures and develop more ho-

1 listic approaches to evaluating and mitigating cli-  
2 mate risks;

3 (6) how to ensure that investments in infra-  
4 structure resilience benefit all communities, includ-  
5 ing communities of color, low-income communities  
6 and tribal communities that face a disproportionate  
7 risk from climate change and in many cases have ex-  
8 perience long-standing unmet needs and under-  
9 investment in critical infrastructure;

10 (7) how to incorporate capital assessment and  
11 planning training and techniques, including a range  
12 of financing options to help local and State govern-  
13 ments plan for and provide matching funds; and

14 (8) how federal agencies can track and monitor  
15 federally funded resilient infrastructure in a coordi-  
16 nated fashion to help build the understanding of the  
17 cost-benefit of resilient infrastructure and to build  
18 the capacity for implementing resilient infrastruc-  
19 ture.

20 (e) CONSULTATION.—In carrying out the study, the  
21 Transportation Research Board—

22 (1) shall convene and consult with a panel of  
23 national experts, including operators and users of  
24 Federal transportation infrastructure and private  
25 sector stakeholders; and

1 (2) is encouraged to consult with—

2 (A) representatives from the thirteen fed-  
3 eral agencies that comprise the United States  
4 Global Change Research Program;

5 (B) representatives from the Department  
6 of the Treasury;

7 (C) professional engineers with relevant ex-  
8 pertise in infrastructure design;

9 (D) scientists from the National Academies  
10 with relevant expertise;

11 (E) scientists, social scientists and experts  
12 from academic and research institutions who  
13 have expertise in climate change projections and  
14 impacts; engineering; architecture; or other rel-  
15 evant areas of expertise;

16 (F) licensed architects with relevant expe-  
17 rience in infrastructure design;

18 (G) certified planners;

19 (H) representatives of State, local and  
20 Tribal governments; and

21 (I) representatives of environmental justice  
22 groups.

23 (f) REPORT.—Not later than 3 years after the date  
24 of enactment of this Act, the Transportation Research  
25 Board shall submit to the Secretary, the Committee on

1 Environment and Public Works of the Senate, and the  
2 Committee on Transportation and Infrastructure of the  
3 House of Representatives a report on the results of the  
4 study conducted under this section.

5 (g) FUNDING.—From amounts authorized to carry  
6 out the Highway Research and Development Program, the  
7 Secretary shall use to carry out this section not more than  
8 \$5,000,000 for fiscal year 2021.

9 (h) IMMEDIATE APPLICABILITY.—Section 1001 of  
10 this Act shall not apply to this section.

