



March 17, 2021

The Honorable Tom Carper
 Chairman
 Environment & Public Works Committee
 456 Dirksen Senate Office Building
 Washington, DC 20510

The Honorable Shelly Moore Capito
 Ranking Member
 Environment and Public Works Committee
 410 Dirksen Senate Office Building
 Washington, DC 20510

Dear Chairman Carper and Ranking Member Capito:

The American Concrete Pavement Association (ACPA), the National Asphalt Pavement Association (NAPA), and the Portland Cement Association (PCA) appreciate your support in reauthorizing the Accelerated Implementation and Deployment of Pavement Technologies (AIDPT) program.

According to the Federal Highway Administration, more than half of Federal-Aid Highway (FAH) program dollars are spent on pavements. As such, our organizations representing the main material suppliers to our nation’s highways and roads understand the important role our industries play in identifying and deploying innovative pavement solutions necessary to deliver a cost efficient and safe roadway network while, at the same time, reducing greenhouse gas emissions.

ACPA, NAPA, and PCA have reviewed USC 23, Section 503, Research and Technology Development and Deployment, as it exists in current law and the proposed changes made to this section by H.R. 2, the INVEST in America Act, and S. 2302, America’s Transportation Infrastructure Act (ATIA). We jointly make the following recommendations for your consideration. We believe these modest changes will strengthen and focus the AIDPT program and the proposed “Materials to Reduce Greenhouse Gas Emissions Program” that was included in the INVEST in America Act.

As the Senate Environment & Public Works Committee begins its work on a surface transportation reauthorization bill, ACPA, NAPA, and PCA support the reauthorization of the AIDPT program and the “Materials to Reduce Greenhouse Gas Emissions Program” with the following modifications:

Text of Enclosure	Proposed Changes to AIDPT Program	Justification
Page 1, Line 16	Insert “in coordination with industry”	The AIDPT program is focused on the deployment of innovative pavement technologies. As such, collaboration with industry is key to ensure the program is producing outcomes that are deployable, useful, and achieves their objectives.
Page 1, line 44	Strike “the construction of highways” and insert “the entire pavement life cycle.”	There are five pavement life cycle stages according to FHWA: materials production, construction, use, maintenance and rehabilitation, and end-of-life. This change will allow the AIDPT program to consider all stages in the pavement life cycle.

Text of Enclosure	Proposed Changes to AIDPT Program	Justification
Page 2, Line 5-29	Move study language to "(2) Improving Highway Safety under Section 503."	The study is focused on research toward improving highway safety and therefore should be transferred to the safety section of 503.
Page 2, Line 33	Strike \$12,000,000 and insert \$14,000,000.	The AIDPT program has been funded at \$12 million since its inception in MAP-21. Given the expanded portfolio envisioned by the Congress (as per section (B) (vii)), a modest increase of \$2 million a year is proposed.
Page 2, Line 38	Strike "annually" in current law and replace with "once every 2 years"	Current law requires annual reports. The Senate bill proposed every 3 years. Industry suggests every two years. This will ensure that at least 2 reports are published during the next reauthorization cycle.

Proposed Changes to "Materials to Reduce Greenhouse Gas Emissions Program"		
Text of Enclosure		Justification
Page 3, Line 13	Strike "promote sustainability" and replace with "reduce greenhouse gas emissions"	This change would ensure the report's focus is on reducing greenhouse gas reduction. Industry feels "Sustainability" is overly broad and vague.
Page 3, Line 28	Strike "production of highway materials and the construction and use of highways" and replace with "entire pavement life cycle"	This change would harmonize the grant program with the AIDPT program's focus on all stages of the pavement life cycle (as per proposed changes in section (B) (vii), on page 1, line 44).
Page 5, Line 25	Add "over the entire life cycle of the pavement"	This change would harmonize the language with AIDPT section and ensure that as materials are evaluated for greenhouse gas reduction, the entire life cycle of a pavement would be considered.

Thank you for your consideration of our joint legislative recommendations. We look forward to working with you to enact a surface transportation reauthorization bill by October 1, 2021. If you have any questions or require additional assistance, please do not hesitate to reach out to us or our professional staff.

Sincerely,



Gerald F. Voigt, P.E.
President & CEO
American Concrete Pavement Association



Audrey Copeland, Ph.D., P.E.
President & CEO
National Asphalt Pavement Association



Michael Ireland
President & CEO
Portland Cement Association

1 USC 23 §503 Research and Technology
2 Development and Deployment
3 Current Law

4 **House Proposed Changes**

5 **Senate Proposed Changes**

6 **House/Senate Proposed Changes**

7 **Industry Proposed Changes**

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11 **(3) Accelerated implementation and deployment of pavement**
12 **technologies.—**

13
14 **(A)**In general.—The Secretary shall establish and implement a program
15 under the technology and innovation deployment program to promote,
16 implement, deploy, demonstrate, showcase, support, and document, *in*
17 **coordination with industry** the application of innovative pavement
18 technologies, practices, performance, and benefits.

19
20 **(B)**Goals.—The goals of the accelerated implementation and deployment of
21 pavement technologies program shall include—

- 22
- 23 **(i)** the deployment of new, cost-effective designs, materials,
24 recycled materials, and practices to extend the pavement life
25 and performance and to improve user satisfaction;
 - 26 **(ii)** the reduction of initial costs and lifecycle costs of pavements,
27 including the costs of new construction, replacement,
28 maintenance, and rehabilitation;
 - 29 **(iii)** the deployment of accelerated construction techniques to
30 increase safety and reduce construction time and traffic
31 disruption and congestion;
 - 32 **(iv)** the deployment of engineering design criteria and specifications
33 for new and efficient practices, products, and materials for use in
34 highway pavements;
 - 35 **(v)** the deployment of new nondestructive and real-time pavement
36 evaluation technologies and construction techniques; and
 - 37 **(vi)** effective technology transfer and information dissemination to
38 accelerate implementation of new technologies and to improve
39 life, performance, cost effectiveness, safety, and user
40 satisfaction.

41 **(vii)** *the deployment of innovative pavement designs, materials, and*
42 *practices that reduce or sequester the amount of greenhouse*
43 *gas emissions generated during the construction of highways*
44 *entire pavement life cycle, with consideration for findings*

1 from the materials to reduce greenhouse gas emissions program
2 under subsection (d).

3
4
5 ~~(C) HIGH-FRICTION SURFACE TREATMENT APPLICATION STUDY.—~~

6
7 ~~(i) DEFINITION OF INSTITUTION.—~~In this subparagraph, the term
8 'institution' means a private sector entity, public agency, research
9 university or other research institution, or organization representing
10 transportation and technology leaders or other transportation
11 stakeholders that, as determined by the Secretary, is capable of
12 working with State highway agencies, the Federal Highway
13 Administration, and the highway construction industry to develop
14 and evaluate new products, design technologies, and construction
15 methods that quickly lead to pavement improvements.

16 ~~(ii) STUDY.—~~The Secretary shall seek to enter into an agreement with
17 an institution to carry out a study on the use of natural and
18 synthetic calcined bauxite as a high friction surface treatment
19 application on pavement.

20 ~~(iii) REPORT.—~~Not later than 18 months after the date of enactment of
21 the America's Transportation Infrastructure Act of 2019, the
22 Secretary shall submit a report on the results of the study under
23 clause (ii) to—

24 ~~(I) the Committee on Environment and Public Works of the~~
25 ~~Senate;~~

26 ~~(II) the Committee on Transportation and Infrastructure of the~~
27 ~~House of Representatives;~~

28 ~~(III) the Federal Highway Administration; and the American~~
29 ~~Association of State Highway and Transportation Officials.~~

30
31 **(C) Funding.—** The Secretary shall obligate for each of fiscal years 2022
32 through 2025 from funds made available to carry out this subsection
33 \$12,000,000 **\$14 million** to accelerate the deployment and implementation
34 of pavement technology.

35
36 **(D) Publication.—**

37
38 **(i)** In general.— Not less frequently than annually **once every 3-2**
39 **years**, the Secretary shall issue and make available to the
40 public on an Internet website a report on the cost and benefits
41 from deployment of new technology and innovations that
42 substantially and directly resulted from the program established
43 under this paragraph.
44

- 1 **(ii)** Inclusions.—The report under clause (i) may include an analysis
2 of—
- 3 **(I)** Federal, State, and local cost savings;
 - 4 **(II)** project delivery time improvements;
 - 5 **(III)** reduced fatalities;
 - 6 **(IV)** congestion impacts;
 - 7 **(V)** pavement monitoring and data collection practices;
 - 8 **(VI)** pavement durability and resilience;
 - 9 **(VII)** stormwater management;
 - 10 **(VIII)** impacts on vehicle efficiency;
 - 11 **(IX)** the energy efficiency of the production of paving
12 materials and the ability of paving materials to enhance
13 the environment and ~~promote sustainability~~ **reduce**
14 **greenhouse gas emissions;**
 - 15 **(X)** integration of renewable energy in pavement designs;
16 and
 - 17 **(XI)** greenhouse gas emissions reduction, including findings
18 from the materials to reduce greenhouse gas emissions
19 program under subsection 3(d).
- 20
21
22

23 ***(d) MATERIALS TO REDUCE GREENHOUSE GAS EMISSIONS PROGRAM.—***

24 ***(1) IN GENERAL.—***Not later than 6 month after the date of enactment of this subsection,
25 the Secretary shall establish and implement a program under which the Secretary shall
26 award grants to eligible entities to research and support the development of materials that
27 will reduce or sequester the amount of greenhouse gas emissions generated during the
28 ~~production of highway materials and the construction and use of highways~~ **entire pavement**
29 ***life cycle.***

30 ***(2) ACTIVITIES.—***The Secretary shall ensure that the program, at a minimum—

31 ***(A)*** carries out research to determine the materials proven to most effectively reduce
32 or sequester greenhouse gas emissions;

33 ***(B)*** evaluates and improves the ability of materials to most effectively reduce or
34 sequester greenhouse gas emissions; and

35 ***(C)*** supports the development and deployment of materials that will reduce or
36 sequester greenhouse gas emissions.

1 *(3) COMPETITIVE SELECTION PROCESS.—*

2 *(A) APPLICATIONS.—To be eligible to receive a grant under this subsection, an*
3 *eligible entity shall submit to the Secretary an application in such form and*
4 *containing such information as the Secretary may require.*

5 *(B) CONSIDERATION.—In making grants under this subsection, the Secretary shall*
6 *consider the degree to which applicants presently carry out research on materials that*
7 *reduce or sequester greenhouse gas emissions.*

8 *(C) SELECTION CRITERIA.—The Secretary may make grants under this subsection*
9 *to any eligible entity based on the demonstrated ability of the applicant to fulfill the*
10 *activities described in paragraph (2).*

11 *(D) TRANSPARENCY.—*

12 *(i) IN GENERAL.—The Secretary shall provide to each eligible entity*
13 *submitting an application under this subsection, upon request, any materials,*
14 *including copies of reviews (with any information that would identify a*
15 *reviewer redacted), used in the evaluation process of the application of such*
16 *entity.*

17 *(ii) REPORTS.—The Secretary shall submit to the Committee on*
18 *Transportation and Infrastructure of the House of Representatives and*
19 *the Committee on Environment and Public Works of the Senate a*
20 *report describing the overall review process for a grant under this*
21 *subsection, including—*

22 *(I) specific criteria of evaluation used in the review;*

23 *(II) descriptions of the review process; and*

24 *(III) explanations of the grants awarded.*

25 *(4) GRANTS.—*

26 *(A) RESTRICTIONS.—*

27 *(i) IN GENERAL.—For each fiscal year, a grant made available under this*
28 *subsection shall be not greater than \$4,000,000 and not less than \$2,000,000*
29 *per recipient.*

1 (ii) LIMITATION.—An eligible entity may only receive 1 grant in a fiscal year
2 under this subsection.

3 (B) MATCHING REQUIREMENTS.—

4 (i) IN GENERAL.—As a condition of receiving a grant under this subsection, a
5 grant recipient shall match 50 percent of the amounts made available under
6 the grant.

7 (ii) SOURCES.—The matching amounts referred to in clause (i) may include
8 amounts made available to the recipient under—

9 (I) section 504(b); or

10 (II) section 505.

11 (5) PROGRAM COORDINATION.—

12 (A) IN GENERAL.—The Secretary shall—

13 (i) coordinate the research, education, and technology transfer activities
14 carried out by grant recipients under this subsection;

15 (ii) disseminate the results of that research through the establishment and
16 operation of a publicly accessible online information clearinghouse; and

17 (iii) to the extent practicable, support the deployment and commercial
18 adoption of effective materials researched or developed under this subsection
19 to relevant stake holders.

20 (B) ANNUAL REVIEW AND EVALUATION.—Not later than 2 years after the date
21 of enactment of this subsection, and not less frequently than annually thereafter, the
22 Secretary shall, consistent with the activities in paragraph (3)—

23 (i) review and evaluate the programs carried out under this subsection by
24 grant recipients, describing the effectiveness of the program in identifying
25 materials that reduce or sequester greenhouse gas emissions **over the entire life**
26 **cycle of the pavement;**

27 (ii) submit to the Committee on Transportation and Infrastructure of the
28 House of Representatives and the Committee on Environment and Public
29 Works of the Senate a report describing such review and evaluation; and

1 (iii) make the report in clause (ii) available to the public on a website.

2 (6) LIMITATION ON A VAILABILITY OF AMOUNTS.—Amounts made available to carry
3 out this subsection shall remain available for obligation by the Secretary for a period of years
4 after the last day of the fiscal year for which the amounts are authorized.

5 (7) INFORMATION COLLECTION.—Any survey, questionnaire, or interview that the
6 Secretary determines to be necessary to carry out reporting requirements relating to any
7 program assessment or evaluation activity under this subsection, including customer
8 satisfaction assessments, shall not be subject to chapter 35 of title 44.

9 (8) DEFINITION OF ELIGIBLE ENTITY.—In this subsection, the term ‘eligible entity’
10 means a nonprofit institution of higher education, as such term is defined in section 101 of
11 the Higher Education Act of 1965 (20 U.S.C. 1001).