NOTICE OF FUNDING OPPORTUNITY FOR "ADVANCING SUSTAINABILITY AND RESILIENCE IN PAVEMENTS"

AGENCY: U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA).

ACTION: Notice of Funding Opportunity (NOFO) for "Advancing Sustainability and Resilience in Pavements".

FUNDING OPPORTUNITY NUMBER: 693JJ323NF00006 issued **May 11, 2023.**

ASSISTANCE LISTING NUMBER: 20.200 Highway Research & Development

TOTAL AMOUNT AVAILABLE: This NOFO will result in the award of one (1) cost-reimbursable cooperative agreement. The FHWA anticipates Federal funding up to a total amount of $1,500,000 per year may be made available for this Agreement, subject to the availability of funds, for a total potential Federal share of $7,500,000.

DEADLINE FOR APPLICATIONS: June 26, 2023, at 11:59 PM (Eastern).

QUESTIONS DUE DATE: Any questions regarding this NOFO are due to FHWA Point of Contact, Freida Byrd, Agreement Specialist at Freida.Byrd@dot.gov, no later than May 22, 2023, at 4:00 PM (Eastern).

SUBMIT APPLICATIONS TO: The FHWA uses www.grants.gov for receipt of all applications. Applicants must register and use the system to submit applications electronically. Applicants are encouraged to register in advance of the submission deadline and to register to receive notifications of updates/amendments to this Notice. Approval of user registrations for the site may take multiple weeks. It is the Applicant's responsibility to monitor for any updates to this Notice.

FHWA POINT OF CONTACT:

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Federal Highway Administration
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Alternate:

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Each section of this notice contains information and instructions relevant to the application process. The applicant should read this notice in its entirety so that they have the information they need to submit eligible and competitive applications.

The FHWA will not review applications in advance, but FHWA staff are available for technical questions and assistance. In addition, FHWA will post answers to questions and requests for clarifications at Grants.gov under this NOFO's page.

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SECTION A - PROGRAM DESCRIPTION

1. STATEMENT OF PURPOSE

The purpose of this Notice of Funding Opportunity (NOFO) is to solicit applications to result in the award of a new Cooperative Agreement, entitled, "Advancing Sustainability and Resilience in Pavements."
This opportunity is being issued under assistance listing number 20.200, Highway Research & Development.

For more than 10 years, Sustainable Pavements Program (SPP) has been working to advance the knowledge and practice of sustainability related to pavement systems, encourage infrastructure sustainability, including quantification of environmental impacts through the use of lifecycle assessment (LCA) and environmental product declarations (EPDs).

The Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL), which passed in 2021, included a Carbon Reduction Program. Furthermore, the Inflation Reduction Act of 2022 includes $2 billion grant program for low-carbon transportation materials.

FHWA awarded funds to 27 agencies as part of the Climate Challenge, Quantifying Emissions of Sustainable Pavements. The FHWA Climate Challenge provides resources to these agencies to explore the use of LCAs and EPDs as a standard practice to inform pavement material and design selection for enhancing sustainable pavement practices and quantify the emissions and impacts of those practices.

The FHWA Low-Carbon Materials Grant Program authorized in IRA will build upon programs such as the FHWA's Climate Challenge) and Every Day Counts (EDC) Initiative on EPDs for Sustainable Project Delivery.

The purpose of this cooperative agreement (Agreement) is to further the SPP by exploring topics related to sustainability and resilience, including, but not limited to, sustainable and resilience infrastructure, equity, life cycle cost analysis (LCCA), LCA, social LCA, vulnerability assessment, use of low-carbon materials that are suitable to use in the US public road system, and other related topics.

In addition, a key area of the SPP is the development and deployment of new technologies and as such, products may include developing technical documents, case studies and tech brief, marketing/implementation plans, engaging subject matter experts, developing training tools, marketing of case studies, data analysis, compilation of findings, and supporting stakeholder engagement.

2. LEGISLATIVE AUTHORITY

In United States Code Title 23 – Highways, Section 503(c)(1)(A), the purpose of the **Technology and Innovation Deployment** program "shall be to significantly accelerate the adoption of innovative technologies by the surface transportation community." Further, Section 503(c)(3), titled *Accelerated implementation and deployment of pavement technologies*, "[t]he Secretary shall establish and implement a program under the technology and innovation deployment program to promote, implement, deploy, demonstrate, showcase, support, and document the application of innovative pavement technologies, practices, performance and benefits." The goals (Section 503(c)(3)(B)) of the program that directly apply to this agreement are:

> (i) the deployment of new, cost-effective designs, materials, recycled materials, and practices to extend the pavement life and performance and to improve user satisfaction;
>
> (ii) the reduction of initial costs and lifecycle costs of pavements, including the costs of new construction, replacement, maintenance, and rehabilitation;
>
> (iii) the deployment of accelerated construction techniques to increase safety and reduce construction time and traffic disruption and congestion;
>
> (iv) the deployment of engineering design criteria and specifications for new and efficient practices, products, and materials for use in highway pavements;
>
> (v) the deployment of new nondestructive and real-time pavement evaluation technologies and construction techniques; and
>
> (vi) effective technology transfer and information dissemination to accelerate implementation of new technologies and to improve life, performance, cost effectiveness, safety, and user satisfaction.

The funding provided for this program is given in 11101(c)(1)(B) of Public Law 117-58 BIL Section 503(c)(3)(D) of United States Code Title 23 has been amended to state that "The Secretary shall obligate for each of fiscal years 2022 through 2026 from funds made available to carry out this subsection $12,000,000 to accelerate the deployment and implementation of pavement technology."

In order to carry out this program, Section 502(a)(7) of United States Code Title 23 states: "Except as otherwise provided in this chapter, the Secretary shall award, to the maximum extent practicable, all grants, contracts, and cooperative agreements for research and development under this chapter based on open competition and peer review of proposals."

The Federal Government's cost share requirements are provided in PL 117-58, Title I, Section 11101 (c)(3)(A). APPLICABILITY OF TITLE 23, UNITED STATES CODE.— "Amounts authorized to be appropriated by paragraph (1) shall be available for obligation in the same

manner as if those funds were apportioned under chapter 1 of title 23, United States Code, except that the Federal share of the cost of a project or activity carried out using those funds shall be 80 percent, unless otherwise expressly provided by this division (including the amendments by this division) or otherwise determined by the Secretary; and (B) remain available until expended and not be transferable, except as otherwise provided by this division."

3. BACKGROUND

The Agreement will focus on deployment of innovative technologies and strategies to advance sustainable and resilience pavements related topics. A primary goal of the FHWA Accelerated Implementation and Deployment of Pavement Technologies (AIDPT) Program is the advancement of new and innovative technologies to advance the knowledge and practice of designing, constructing, and maintaining more sustainable and resilient pavements. As such, the FHWA supports deployment of advanced research findings in pavements and materials through such programs as the National Cooperative Highway Research Program (NCHRP) and the Strategic Highway Research Programs (SHRP and SHRP2).

Once these research projects are completed, the FHWA requires assistance in the deployment of the technology, which often includes items such as, but not limited to: marketing, material testing, product demonstration showcases, support of field trials, conference presentations, training, webinars, workshops, peer exchanges, videos, and technical assistance to State DOTs. As part of this innovation deployment program, FHWA engages and works collaboratively with subject matter experts and stakeholders through the Sustainable Pavement Technical Working Group (SPTWG) and other stakeholders engagement with representatives from industry; researchers/academia; consultant; Federal, State, and local government representatives; and others.

In addition, the FHWA requires the assistance of an entity with access to a network of engineers, technical experts, and subject matter experts across the United States to successfully carry out tasks, field projects, and demonstration projects that will provide valuable information to improve sustainability and resilience of pavements.

4. GOALS

Aligned with the U.S. Department of Transportation's goals for Climate Change and Sustainability, this agreement will support efforts to reduce greenhouse gas emissions in the transportation sector, incorporate evidence-based climate resilience measures and features, reduce the lifecycle greenhouse gas emissions from the project materials, and avoid adverse environmental impacts to air or water quality, wetlands, and endangered species, and address the disproportionate negative environmental impacts of transportation on disadvantaged communities, consistent with Executive Order 14008, Tackling the Climate Crisis at Home and Abroad (86 FR 7619)."

Specifically, the goals of this Agreement are to promote the deployment and rapid adoption of new and innovative materials, design and construction procedures, specifications, practices, and methods by the sustainable and resilient pavement community.

The Recipient shall support the deployment and rapid adoption, throughout the United States. These items will include but not be limited to those shown below and in Table A.

The Recipient shall work in cooperation with the SPTWG and other stakeholders associated with the defined Tasks.

5. STATEMENT OF WORK

During the period of performance, the FHWA and the Recipient shall meet, at a minimum, quarterly to discuss project activities. The location of the meeting shall be established in coordination with the Agreement Officer's Representative (AOR) and with the Recipient. Quarterly meetings will be held in Washington, DC, the Recipient's primary office location, a mutually attended industry conference or meeting (e.g., an ETG meeting), or via web conference.

1 Agreement Work Plan Process

1.1 The Recipient shall schedule and facilitate a project kick-off meeting (either virtually or in-person) with FHWA within four (4) weeks of this agreement's effective date. The location of the kick-off meeting will be determined by FHWA within one week of the agreement effective date. The Recipient shall be responsible for providing a final approved meeting agenda no later than three (3) business days prior to the kickoff meeting as well as providing full meeting minutes within ten (10) business days after the kick-off meeting.
NOTE: The kick-off meeting may be a virtual (e.g., teleconference, webinar), in-person, or hybrid format.

1.2 The Recipient shall submit proposed annual work plans to support subtasks 1.2 and 1.3 for items identified in Table A below. Annual work plans shall be submitted to the AOR for review in order to determine and prioritize which needs shall be addressed each year. The entirety of innovations in Table A does not need to be addressed each year. The Recipient shall submit annual work plans. The AOR will provide comments to the Recipient within 30 days after the receipt of the draft annual work plan. The Recipient shall then revise the work plan(s) within 30 days of receipt of the AOR comments and submit the final version of the work plans to the AOR. Upon notification from the AOR, the Recipient shall proceed with the agreed upon tasks.

1.3 The Recipient shall develop, maintain, and execute an implementation/marketing plan for identified innovations, which may include, but is not limited to any or all of the following elements:

1.3.1 Gap Analysis – Identify critical limitations, gaps, and needs in the current technology.

1.3.2 Risk/Benefit Analysis – What is the risk or loss of not deploying the innovation? What are the benefits and gains to be had by deploying the innovation? This information shall be an integral part of the marketing effort.

1.3.3 Target Audience – Clearly define the target audience. Who are the decision makers in advancing the innovation? Who is the target audience for technical training? Who are the end users?

1.3.4 Market Summary – Within these Federal, State, and local agencies, what are the segments mostly likely to influence the adoption of the innovation?

1.3.5 Key Message – Develop a clear vision, memorable message, and/or tag-line(s) that clearly capture the goal(s) of the deployment effort.

1.3.6 Market Analysis – Benchmark and track current national product/material/process usage and estimate market potential.

1.3.7 Barrier Analysis – Identify potential/perceived barriers with deployment.

1.3.8 S.W.O.T. Analysis – Alternatively to the Barrier Analysis a Strengths-Weaknesses-Opportunities-Threats Analysis can be conducted.

1.3.9 Performance Measures & Outcomes – Working with FHWA, establish agreed upon performance measures and outcomes for the deployment effort.

1.3.10 Tools for Marketing & Communication – Develop and execute tools to market and communicate the deployment of the innovation effectively. Examples of tools include, but are not limited to: presentations, workshops, conferences, innovation demonstrations, peer-to-peer exchanges, technical briefs, practice guides, articles, Q&A webinars, partnerships, videos, and case studies. These tools shall be made publicly available, either through Recipient or FHWA avenues of communication.

1.3.11 Training – Identify and address training needs for deployment in cooperation with FHWA. Develop curriculum and recommended training approaches: face-to-face Instructor-Led Training (ILT), distance ILT (webinar), web-based training tools, or a blended approach. The Recipient shall develop all training materials and supporting documentation.

1.3.12 Refinement of Standards and Specifications – Identify, participate in, and/or lead efforts to enhance design, production, and materials testing standards and specifications. Efforts may include: ruggedness testing, inter-laboratory studies to establish precision and bias statements, as well as technical assistance as part of a FHWA-supported task force in the form of knowledge sharing, data exchange, etc.

1.4 Reporting – The Recipient shall submit an interim report on an annual basis, summarizing the activities, actions, and findings of the subtasks associated with Task 1.1. The interim report shall be submitted to the AOR for technical review and shall be submitted by FHWA to the ETGs and TWG in order for individuals on those advisory groups to provide input.

2 Support Deployment and Rapid Adoption of Innovations

2.1 The Recipient shall conduct the agreed-upon annual work plan(s) according to Task 1.1 for innovations identified and prioritized from Table A.

3 Gathering Input and Information from FHWA Technical Stakeholder Groups

3.1 The Recipient shall work in cooperation with stakeholder groups identified to vet and collaborate in ongoing deployment activities and findings. Activities may include: preparing and delivering presentations on project activities, and obtaining and refining reports and other documents based on input from stakeholder groups identified.

Table A. List of Areas of Interest
Sustainability

Advance sustainability performance metrics (Environmental, Social, and Economic Indicators) for pavement investment decision making throughout the pavement life cycle.
Develop guidelines and tools to quantify and demonstrate environmental, social, and economic benefits or costs, such as guidance and tools for LCA, LCCA, and/or Sustainability Rating Systems.
Assist in implementation and advancement of good practices, guidelines, and tools (EPDs, LCA, LCCA, sustainability rating systems, green public procurement).
Develop and provide assistance on how to quantify the impacts associated with the use phase of the pavement.
Quantify and baseline the sustainability performance of current design, construction, maintenance, preservation, and end of life practices.
Develop frameworks to link sustainability assessment results informing pavement investment decisions to planning, asset management, and short-term and long-term transportation plans.
Identify and develop strategies and practices throughout the entire pavement life cycle.
Explore the use of new and innovative materials and underutilized practices (e.g. alternative binders, optimized use of binders, inverted pavements, porous pavements, more efficient construction technologies that minimize environmental impacts, etc.).
Develop and advance long-life design and material selection strategies.
Develop and advance innovative and underutilized construction strategies and techniques to achieve more durable pavements (e.g. intelligent compaction, nondestructive testing and evaluation for acceptance, performance specifications, etc.).
Identify strategies to increase the effective use of reclaimed, recycled materials, and industrial byproducts in pavement materials and mixture designs (e.g. recycled concrete, RAP, RAS, SCMs, etc.) while accounting for performance considerations.
Explore and advance increased opportunities of in-place recycling and local materials while accounting for performance considerations.
Review and document the current state of knowledge and practices related to pavement design, construction, maintenance, and preservation practices over the last ten years.
Identify contract mechanisms and opportunities for flexibility in specifications that support

decisions with more sustainable outcomes in line with agencies goals.
Assess university curriculums for Sustainability and review the Accreditation Board for Engineering and Technology (ABET) curriculum requirements. Determine existing gaps including whether curriculum addresses quantification methods or tools for analysis. Provide recommendations for strategies to address existing gaps.

Resilience

Incorporate resilience in pavement design, construction, maintenance and preservation processes.
Document the current knowledge, state of practice, and gaps of more resilient pavements (highlight pavement vulnerabilities, identify cost effective strategies that are more resilient including how pavement interacts as a transportation system with the surrounding environment, and document how states are currently incorporating resilience into their asset management plan).
Develop methodologies and guidance to incorporate resilience into pavement design, construction, maintenance and preservation processes (including understanding of deterioration rates) which are sensitive to funding constraints (document potential benefit costs, priorities).
Assess university curriculums for Resilience and review the Accreditation Board for Engineering and Technology (ABET) curriculum requirements. Determine existing gaps including whether curriculum addresses quantification methods or tools for analysis. Provide recommendations for strategies to address existing gaps.
Develop methodologies and guidance for quantifying the social impacts of the design and maintenance of resilient pavements.
Examine best practices for incorporating future climate projections into pavement design. Develop methodologies and guidance for incorporating future climate projections into pavement asset management.

Section 508

Accessibility Requirements: Section 508 of the Rehabilitation Act of 1973

Although the requirements of Section 508 of the Rehabilitation Act of 1973, as amended, do not apply to assistance agreements, the FHWA is subject to the Act's requirements that all documents posted on an FHWA or FHWA-hosted website comply with the accessibility standards of the Act. As such, all electronic and information technology products that are submitted under this Agreement must be Section 508-compliant so that they can be web posted without further modification. Applicants that ensure that their websites comply with Federal Accessibility Requirements will receive higher consideration during the evaluation.

The Act requires that all electronic products prepared for the Federal government be accessible to persons with disabilities, including those with vision, hearing, cognitive, and mobility impairments. See Section 508 of the Rehabilitation Act at www.access-board.gov/508.htm and the Federal Information Technology Accessibility Initiative Home Page (www.section508.gov/) for detailed information. The following paragraphs summarize the requirements for preparing FHWA reports in conformance with Section 508 for eventual posting by FHWA to an FHWA-sponsored website.

a. *Electronic documents with images*
Provide a text equivalent for every non-text element (including photographs, charts and equations) in all publications prepared in electronic format. Use descriptions such as "alt" and "longdesc" for all non-text images or place them in element content. For all documents prepared, vendors must prepare one standard HTML format as described in this statement of work AND one text format that includes descriptions for all non-text images. "Text equivalent" means text sufficient to reasonably describe the image. Images that are merely decorative require only a very brief "text equivalent" description. However, images that convey information that is important to the content of the report require text sufficient to reasonably describe that image and its purpose within the context of the report.

b. *Electronic documents with complex charts or data tables*
When preparing tables that are heavily designed, prepare adequate alternate information so that assistive technologies can read them out. Identify row and column headers for data tables. Provide the information in a nonlinear form. Markups shall be used to associate data cells and header cells for data tables that have two or more logical levels of row and column headers.

c. *Electronic documents with forms*
When electronic forms are designed to be completed online, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

Draft documents developed under this Agreement shall be delivered as electronic files compatible with Microsoft Word 2000, or verified to be error free when read using Microsoft Word 2000 and Adobe PDF formats. Any other electronic format shall receive prior approval from the AOTR. With prior approval of the AOTR, artwork or graphics not embedded in the electronic (MS Word) document may be submitted in camera ready format. Deliverables must follow the publications guidelines available at: www.tfhrc.gov/qkref/qrgmain.htm unless otherwise indicate in this scope of work.

The final deliverables to be delivered under this Agreement must comply with Section 508 of the Rehabilitation Act and the Access Board Standards available online at: www.section508.gov. Unless otherwise indicated, the Recipient represents by signature on this agreement that all deliverables will comply with the Access Board Standards. Final documents will be delivered in Microsoft Word 2000, PDF, and HTML formats. These documents will be prepared in electronic GPO-required format and shall meet the Section 508 requirements to allow them to be posted and viewed on the Internet. Files should be organized so that they are readable without requiring an associated style sheet. The html versions shall include a text equivalent description (e.g., via "alt", "longdesc", or in element content) for every non-text (e.g., graph, table, photo, diagram, etc.) element in the document. The best location for information on regulations for 36 CFR 1194, which implements Section 508 of the Rehabilitation Act of 1973, as amended, is at www.access-board.gov/sec508/guide/index.htm.

If the information center website existed before the effective date of this agreement, information presented prior to the date of execution of this agreement does not need to be modified to comply with Federal accessibility requirements. However, if a web page is modified or updated during this agreement's period of performance, the modified or updated page must be presented in accessible format.

SECTION B – FEDERAL AWARD INFORMATION

1. FUNDING AND NUMBER OF AWARDS

The FHWA anticipates making one (1) award as a result of this Notice of Funding Opportunity.

The FHWA anticipates Federal funding up to a total amount of $1,500,000 per year may be made available for this Agreement, subject to the availability of funds, for a total potential Federal share of $7,500,000 may be made available for this Agreement subject to the availability of funds.

2. TYPE OF AWARD

The planned award type is a **cost reimbursement Cooperative Agreement** with a cost share requirement.

3. PERIOD OF PERFORMANCE

The period of performance for this Agreement will be **sixty (60) months** from the effective date of the Agreement.

4. DEGREE OF FEDERAL INVOLVEMENT

The FHWA anticipates substantial Federal involvement between it and the Recipient during the course of this project. The anticipated Federal involvement will include:

- Technical assistance and guidance to the Recipient;
- Close monitoring of performance;
- Involvement in technical decisions;
  Review, comment, and approval of work plan (including outreach and dissemination plan), and training course materials;
- Performance reporting and financial reporting to ensure that the objectives and terms and conditions of the Agreement are met;
- Ability to redirect project activities;
- Participation in status meetings including kick-off meeting and annual technical and budget reviews; and
- Review and comment on draft documents as appropriate.

SECTION C – ELIGIBILITY INFORMATION

1. ELIGIBLE APPLICANTS

This notice is open to **all entities**.

2. COST SHARING OR MATCHING

Cost sharing or matching is required.

The Federal share of the cost of this project shall be 80 percent. The Applicant shall provide a minimum 20 percent cost share of total project cost. Program Income must be handled in accordance with Section F.

The Federal Government's cost share requirements are provided in PL 117-58, Title I, Section 11101 (c)(3)(A). APPLICABILITY OF TITLE 23, UNITED STATES CODE.— "Amounts authorized to be appropriated by paragraph (1) shall be available for obligation in the same manner as if those funds were apportioned under chapter 1 of title 23, United States Code, except that the Federal share of the cost of a project or activity carried out using those funds shall be 80 percent, unless otherwise expressly provided by this division (including the amendments by this division) or otherwise determined by the Secretary; and (B) remain available until expended and not be transferable, except as otherwise provided by this division."

Cost sharing or matching means the portion of project costs not paid by Federal funds (unless otherwise authorized by Federal statute). For a more complete definition, please see the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 CFR Part 200, including section 200.306 on Cost Sharing or matching. Other Federal funds using their appropriate matching share may be leveraged for the deployment but cannot be considered as part of the recipient's matching funds, unless otherwise supported by statute. Applicants should refer to section D.2 of this opportunity for more information about submission requirements concerning cost sharing under this program.

FHWA will not consider previously incurred costs or previously expended or encumbered funds towards the matching requirement for any project. Matching funds are subject to the same Federal requirements as awarded funds.

The matching requirements will be monitored by FHWA over the life of this effort. At the conclusion of the Agreement, FHWA will determine whether the minimum 20 percent cost sharing percent matching requirement has been achieved in accordance with closeout and post closeout requirements in 2 CFR 200.344 and 200.345.

See Legislative Authority in NOFO SECTION A for specific citations.

SECTION D - APPLICATION AND SUBMISSION INFORMATION

1. ADDRESS TO REQUEST APPLICATION PACKAGE

Applicants may obtain application forms at grants.gov under the Notice of Funding Opportunity Number cited herein.

The Applicant must complete and submit all forms included in the application package for this Notice as contained at www.grants.gov.

2. CONTENT AND FORM OF APPLICATION SUBMISSION

a. Applications must be prepared on 8½ x 11 inch paper except for foldouts used for charts, tables or figures, which must not exceed 11 x 17 inches. Foldouts must not be used for text, and will count as two pages.
b. A page is defined as one side of an 8 ½ by 11 inch paper. Therefore, a piece of paper with printing on both sides is considered two pages.
c. Text must be printed using a font size no less than 12 point font (Arial or Calibri).
d. Tables are permitted and text in tables must be doubled spaced.
e. Text in captions below charts, tables or figures must be not less than 10 cpi, and can be 2 lines of text long (limited by the width of the chart, table or figure) and single spaced.
f. Page margins must be a minimum of 1 inch top, bottom and each side.
g. Page numbers may be located within the 1 inch margins
h. A Header or Footer identifying the Applicant/Team and the Volume, may be located within the 1 inch margins
i. No cost/price data will be included in Volume I, but must be included in Volume II.
j. EXCEPTION ON PAGE LIMITS: The following items do NOT count against the page limitation.
    a. Document covers page;
    b. Cover letters (max one page);
    c. Title pages;
    d. Blank divider pages;
    e. Table of contents;
    f. Lists of acronyms;
    Letters of intent to participate from proposed subcontractors, consultants, partners and proposed new hires; and
    g. Resumes. (**NOTE**: resumes shall not exceed 2 pages each.)

The application package must consist of the following in this order:

1) **Volume 1 – Technical Application** as described below – 35 page limit
    - Part I – Technical and Management Approach (*included* in the pages limitation)
    - Part II – Experience (*included* in the pages limitation)

- Part III – Staffing Approach (*included* in the pages limitation; resumes, limited to 2 pages each, are *not included* in the pages limitation and can be an Attachment to Volume I)

In the event a technical application exceeds the page limitation, the Government will evaluate only the pages identified within the limitation above.

2) **Volume 2 – Budget Application** as described below - no page limit
   - Part I – Standard Application Forms
   - Part II – Cost Information and Other Financial Information

   Submit your application in the following format:

Volume 1 - Technical Application

Volume 1 – Technical Application as described below (see page limitations above)

OPTIONAL: An Applicant may include, at their option, to facilitate displaying the organization of their application, a one-page cover page, and a second page to include both a Table of Contents and/or a Listing of Tables/Figures. These pages are for orienting evaluators to the contents of the application package and will not be evaluated and are not included in the Volume I page limitation.

In the event a technical application exceeds the page limitation, the Government will evaluate only the first pages identified within the limitation above.

a. Part I – TECHNICAL AND MANAGEMENT APPROACH: A detailed technical and management plan describing in detail how you would proceed if awarded this Agreement. Discuss and describe the ability of the proposed project to meet the purpose and objectives of this program, and the manner in which they will be addressed by your project.

b. Part II – EXPERIENCE: A summary of the Applicant's experience relevant to this project, listing projects of similar size and complexity over the past five years, and show which of the named key staff, were involved in those projects. List the following information for a minimum of three specific past projects in which the Applicant participated as project leader and/or member of project team:

   - Project title, description, value, and dates;
   - Sponsor/customer point of contact to include sponsor/customer name, title, organization, email address, phone number;
   - Role of Applicant in project;
   - Explanation of why or how the project is considered relevant or similar to the effort required by this Notice of Funding Opportunity; and

Note: In determining relevancy, consideration should be given, but not limited to, such things as product/service similarity, size and complexity, Agreement type, division of company proposing, and sub-recipient interaction.

- Explanation of the project goals accomplished and any cost growth or schedule delays encountered. For any projects which did not/do not successfully achieve its goals, a brief explanation of the reason(s) for such shortcomings and any demonstrated corrective actions taken to avoid recurrence.

NOTE: Prior to award, FHWA may contact past sponsor/customers to support the agency's risk assessment of the application.

NOTE: If an Applicant does not have a history of relevant experience, or if past performance information is not available, the Applicant's experience will be considered to be neutral.

c. Part III – STAFFING APPROACH: Provide a project organizational chart identifying proposed staff members assigned to the project. The chart must be supported with narrative text to include the title and a brief description of each position's responsibilities, as well as the proposed level of effort and allocation of time (% in relation to their other duties) for each position on a yearly basis and in summary format. The level of effort may be displayed (single spaced) in a table format. One table can be presented if the level of effort will be constant over all years, and the table is annotated as such. The hours in this table must be consistent with the information presented in Volume II, Parts I and II, as part of the detailed budget plan. Provide brief *tailored* resumes for the proposed Program Manager/Principal Investigator and other key personnel to include name, experience, education and proposed role in project.

Volume 2 - Budget Application

Volume 2 – Budget Application as described below - no page limit

OPTIONAL: An Applicant may include, at their option, to facilitate displaying the organization of their application, a one-page cover page, and a second page to include both a Table of Contents and/or a Listing of Tables/Figures. These pages are for orienting evaluators to the contents of the application package and will not be evaluated and are not included in the Volume I page limitation

a. Part I - APPLICATION FORMS

1. SF-424

Note: Applicants may leave fields 5a, 5b, 6, 7, and 13 blank on the form.

2. SF-424A
   Note: Section A:
   - Block 1(a): Print opportunity title listed on page 1;
   - Block 1(b): Print CFDA number listed on page 1;
   - Block 1(c): Print Total Federal Funds Requested in dollars; and,
   - Block 1(d): Print Total Cost Share in dollars, and leave columns (e), (f), and (g) and rows 2, 3, and 4 blank.
3. SF-424B

4. SFLLL

Note: The form must be completed and submitted even if no lobbying to report. If no lobbying to report insert none or n/a in the relevant blocks.

b. Part II – COST INFORMATION AND OTHER FINANCIAL INFORMATION

Provide a SF-424A Budget Information - Non-Construction Programs. Provide a separate detailed budget plan for each year and summarize the information for all years for all activities. Spreadsheets can be formatted similarly to the format in DOT Form 4220.44, located at: http://www.fhwa.dot.gov/aaa/pdfs/frm4220_44.pdf.

The detailed budget plan must include each of the following items/sub-items:

1. Detailed excel (or compatible) workbook containing spreadsheets/tabs (formatted to be printed out) and supporting information clearly delineating and supporting all estimated costs: with columns for Federal Share, Cost Share (if applicable) and Total Costs (per year and in summary form) as follows::

   a. Labor Rates- Direct labor-by-labor categories to include hours, rates and escalation. Anticipated promotions for any personnel must be included with the escalation calculation. The annual direct labor escalations rate and its basis should be clearly stated with the proposal. Discuss your proposed rate as compared to historical experience and include when and how escalation will be calculated/implemented.

   b. Indirect Rates- Discuss your proposed rates for all years. Identify all the various specific indirect rates including what they are (pool and base), and what they are based on (e.g.; labor overhead based on direct labor dollars) and how they are applied/calculated. Provide dollar values as well as percentages. Please also provide any audit information to support these rates (for example, a copy of signed Department of Health of Human Services rate agreement).

Note: Per 2 CFR 200.414(f), Indirect (F&A) Costs, an Applicant may elect to propose a de minimis indirect rate of 10% of modified total direct costs.

c. Other Direct Costs- Applicants must provide a breakout and justification of Other Direct Costs by Category (travel, equipment, etc.)

d. If subcontractors/sub-recipients (lower-tiered organizations and/or individual consultants) will be used in carrying out this project, the following minimum information concerning such, must be furnished:

i. Name and address of the organization or consultant.
ii. Description of the portion of work to be conducted by the organization or consultant.
iii. Cost details for that portion of work.
iv. **Applicant's cost/price analysis of each sub-recipient/contractor(s) showing how their price is fair and reasonable; and Applicant's cost/price analysis of each contractor(s) showing how their price is fair and reasonable (this includes any contractor(s) that will be included in the Federal share or the non-Federal share);** and
v. Letter of commitment from each sub-recipient/contractor(s) (this includes any sub-recipient/contractor(s) that will be included in the Federal share, the non-Federal share or in a non-paid (volunteer) capacity).

e. Provide detail and support for cost share as part of overall project budget.

f. Clearly delineate cost share match versus Federal share.

2. Identify any exceptions to the anticipated award terms and conditions as contained in Section F, Federal Award Administration Information. Identify any preexisting intellectual property that you anticipate using during award performance, and your position on its data rights during and after the award period of performance.

3. Applicant SAM Unique Entity Identifier (UEI).

4. A statement to indicate whether your organization has previously completed an A-133 Single Audit and, if so, the date that the last A-133 Single Audit was completed.

5. A statement regarding Conflicts of Interest. The Applicant must disclose in writing any actual or potential personal or organizational conflict of interest in its application that describes in a concise manner all past, present or planned

organizational, contractual or other interest(s), which may affect the Applicants' ability to perform the proposed contract in an impartial and objective manner. Actual or potential conflicts of interest may include but are not limited to any past, present or planned contractual, financial, or other relationships, obligations, commitments or responsibilities, which may bias the Applicant or affect the Applicant's ability to perform the agreement in an impartial and objective manner. The AO will review the statement(s) and may require additional relevant information from the Applicant. All such information, and any other relevant information known to DOT, will be used to determine whether an award to the Applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the AO may (a) disqualify the Applicant, or (b) determine that it is otherwise in the best interest of the United States to contract with the Applicant and include appropriate provisions to mitigate or avoid such conflict in the agreement pursuant to 2 CFR 200.112.

6. A statement to indicate whether a Federal or State organization has audited or reviewed the Applicant's accounting system, purchasing system, and/or property control system. If such systems have been reviewed, provide summary information of the audit/review results to include as applicable summary letter or agreement, date of audit/review, Federal or State point of contact for such review.

7. Terminated Contracts - List any contract/agreement that was terminated for convenience of the Government within the past 3 years, and any contract/agreement that was terminated for default within the past 5 years. Briefly explain the circumstances in each instance.

8. Describe how your organization will obtain the necessary resources to fund and fulfill the proposed cost share, as applicable.

9. The Applicant is directed to review Title 2 CFR §170 (http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr170_main_02.tpl) dated September 14, 2010, and Appendix A thereto, and acknowledge in its application that it understands the requirement, has the necessary processes and systems in place, and is prepared to fully comply with the reporting described in the term if it receives funding resulting from this Notice. The text of Appendix A will be incorporated in the award document as a General Term and Condition as referenced under this Notice's Section F, Federal Award Administration Information.

10. Disclose any violations of Federal criminal law involving fraud, bribery, or gratuity violations. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.338 entitled Remedies for Noncompliance, including suspension or debarment. (See also 2 CFR Part 180 and 31 U.S.C. 3321).

11. If a nonprofit or not-for-profit status, please provide evidence of this status preferably from the Internal Revenue Service.

12. Acknowledgement of acceptance of the NOFO terms and acknowledgement and acceptance of any Amendments issued to this NOFO. List Amendment numbers and issue dates, if any.

3. UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD (SAM)

Each Applicant is required to:

a. Have an active registration in SAM.gov at the time the Applicant submits an application;

b. Provide a valid UEI in their application; and

c. Continue to maintain an active SAM registration with current information at all times during which the Applicant has an active Federal award or an application or plan under consideration by a Federal awarding agency.

FHWA may not make a Federal award to an Applicant until the Applicant has complied with all applicable UEI and SAM requirements. If an Applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the Applicant is not eligible to receive a Federal award and use that determination as a basis for making a Federal award to another Applicant.

NOTE TO APPLICANTS: The SAM requires the registrant to provide a UEI number to complete the registration. These processes can take several weeks to complete so should be started well before the application deadline.

4. SUBMISSION DATES AND TIMES

The application must be received electronically through www.grants.gov by the application due date/time listed on page 1 of this Notice of Funding Opportunity.

The deadline stated on page 1 is the date and time by which the agency must receive the full and completed application, including all required sections.

A late application will not be reviewed or considered unless the AO determines that doing so is in the FHWA's best interest.

5. INTERGOVERNMENTAL REVIEW

An application under this Notice of Funding Opportunity is not subject to the State review under E.O. 12372.

6. FUNDING RESTRICTIONS

The FHWA will not reimburse any pre-award costs or application preparation costs under this proposed Agreement.

7. OTHER SUBMISSION REQUIREMENTS

In the event of system problems or technical difficulties with the application submittal, Applicants should contact the FHWA point of contact designated on page 1. If Applicants are unable to use the system due to technical difficulties, Applicants must e-mail applications to the FHWA point of contact listed on page 1 no later than the application deadline cited above.

SECTION E - APPLICATION REVIEW INFORMATION

C. CRITERIA

The Government will evaluate applications on the following criteria:

TECHNICAL MERIT: FHWA will evaluate and rank the applications against the following technical evaluation criteria.

- Demonstration of an adequate understanding of the task areas and goals.
- Demonstration of a sound, adequate, clear, and realistic technical approach for performing the work.
- Demonstration of the resources and ability to achieve the program goals and objectives.
- Demonstration of an understanding of all risks associated with implementation of task requirements and a clear, workable plan to mitigate such risks.
- Demonstration of potential to result in increased understanding, knowledge, and application in the field of sustainable and resilient pavements.
- Demonstration of a management approach that is sound, adequate, clear, and realistic to manage this effort and ensure successful and timely completion of work, including a sound approach to project organization.
- Demonstration of a sound and realistic staffing approach to successfully perform the work including:
    - Proposed staff possess relevant experience, education, and expertise to successfully perform the work;
    - Adequate contingency plan to replace personnel over the period of performance without adequately affecting performance;
    - Adequate labor mix and realistic level of effort to successfully complete the work; and
    - Demonstration of a multidisciplinary team with a focus on the areas of sustainable and resilient pavements.
- Demonstration of sound partnerships with other organizations and stakeholders.
- Demonstration of experience with issues and opportunities related to the tasks and requirement, as well as relevant prior experience with work of similar size, scope, and complexity of work required under this Agreement.

COST: Relative cost will be considered in the award decision. The budget application will be analyzed to assess cost reasonableness and conformance to applicable cost principles. This evaluation factor will <u>not</u> be rated.

If applicable, the degree of cost share and leveraging of non-federal funds will be considered in the award decision. Applicants must provide the required matching funds, and supporting detail for these funds. Additional cost sharing will be considered beneficial to break ties among applications with equivalent ratings after evaluation against all other factors.

Funding availability will also be considered in the award decision.

D. REVIEW AND SELECTION PROCESS

FHWA will utilize the following merit review process to evaluate applications:

A panel of agency experts will evaluate all eligible technical applications using the merit criteria listed above. The panel will individually evaluate the technical applications. The panel will then collectively assign an adjectival rating to each eligible technical application.

Agency personnel from the FHWA Office of Acquisition and Grants Management will evaluate the cost criteria listed above and conduct a risk assessment of the Applicant, in accordance with 2 CFR 200.206, prior to award as described below.

The Government will accept the application that is considered the most advantageous to the Government using the criteria cited above, and subject to the results of an Applicant risk assessment and funding availability. Applications selected for possible award using the criteria cited above, will undergo the following risk assessment prior to award. The Government reserves the right to not make an award to an Applicant based on the results of the risk assessment.

The AO is the official responsible for final award selection. The Government is not obligated to make any award as a result of this notice.

Risk Assessment

The Government will assess the risks posed by an Applicant before they receive an award. This Risk Assessment will include evaluation of some or all of the following items relative to the Applicant and/or sub-applicants as applicable:

(1) Applicant’s financial stability;

(2) Applicant’s quality of management systems and ability to meet the management standards prescribed in 2 CFR Part 200;

(3) Applicant’s history of performance;

Note: History of performance includes the Applicant's record in managing Federal awards, if it is a prior Recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards. The Government will evaluate the relevant merits of the Applicant’s history of performance based on its reputation and record with its current and/or former customers with respect to quality, timeliness and cost control. The history of performance will be reviewed to assure that the Applicant has relevant and successful experience and will be considered in the risk assessment. In evaluating history of performance, the Government may consider both written

information provided in the application, as well as any other information available to the Government through outside sources.

(4) Applicant's audit reports and findings from audits performed on the Applicant pursuant to 2 CFR Part 200 Subpart F—Audit Requirements or the reports and findings of any other available audits;

(5) Applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities;

(6) Applicant's potential for conflict of interest if applicable; and

Note: The FHWA will review information provided by the Applicant, and any other relevant information known to DOT, to determine whether an award to the Applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the AO may (a) disqualify the Applicant, or (b) determine that it is otherwise in the best interest of the United States to award to the Applicant and include appropriate provisions to mitigate or avoid such conflict in the Agreement pursuant to 2 CFR 200.112.

(7) Applicant's eligibility to receive Federal funding. Per the guidelines on government-wide suspension and debarment in 2 CFR Part 180, the Government will confirmation that the Applicant and any named sub-applicants are not debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

Pursuant to 2 CFR Part 200.206, prior to making a Federal award, the Federal awarding agency is required to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information, such as Federal Awardee Performance and Integrity Information System (FAPIIS), Dun and Bradstreet, and "Do Not Pay." At a minimum, the information in the system for a prior Federal award recipient must demonstrate a satisfactory record of executing programs or activities under Federal grants, cooperative agreements, or procurement awards; and integrity and business ethics.

If FHWA does not make a Federal award to a non-Federal entity because the official determines that the non-Federal entity does not meet either or both of the minimum qualification standards as described in 2 CFR 200.206, the FHWA will report that determination in FAPIIS.

E. ANTICIPATED ANNOUNCEMENT AND FEDERAL AWARD DATES

The FHWA anticipates making award on or about **September 22, 2023**.

SECTION F – FEDERAL AWARD ADMINISTRATION INFORMATION

1. FEDERAL AWARD NOTICES

If your organization's application is selected for award, you will be notified and sent an award document for signature. Applicants not selected for award will be notified in writing by FHWA.

Only the AO can commit the FHWA. The award document, signed by the AO, is the authorizing document. Only the AO can bind the Federal Government to the expenditure of funds.

Notice that an Applicant has been selected as a Recipient does not constitute approval of the application as submitted. Before the actual award, FHWA will enter into negotiations concerning such items as program components, staffing and funding levels, and administrative systems, if necessary. If the negotiations do not result in an acceptable submittal, the FHWA reserves the right to terminate the negotiation and decline to fund the Applicant.

2. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

All awards will be administered pursuant to the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards found in 2 CFR Part 200, as adopted by DOT at 2 CFR Part 1201. Applicable Federal laws, rules and regulations set forth in 23 U.S.C. and 23 CFR and 49 CFR also apply.

A. TRAVEL

Travel and per diem authorized under the cooperative agreement will be reimbursed in accordance with the travel cost section of 2 CFR 200.475.

B. RECIPIENT INTEGRITY AND PERFORMANCE MATTERS

If the Federal Share of this award will be more than $500,000 over the period of performance, the reporting requirements in 2 CFR Part 200, Appendix XII (Award Term and Conditions for Recipient Integrity and Performance Matters) will apply.

GENERAL CLAUSES

General terms, conditions, and governing regulations that apply to this agreement are available online at:

Contractors & Recipients General Terms and Conditions for Assistance Awards | Federal Highway Administration (dot.gov):
https://www.fhwa.dot.gov/cfo/contractor_recip/gtandc_generaltermsconditions.cfm

and

2 CFR Part 1201

Applicable Federal laws, rules, and regulations set forth in title 23 U.S.C. and 23 and 49 CFR shall also apply to awards provided under this program.

Special terms and conditions follow:

A. AVAILABLE FUNDING

The total estimated amount of Federal funding that may be provided under this Agreement is $_____ (to be filled in at award) for the entire period of performance, subject to the limitations shown below:

(1) Currently, Federal funds identified on page 1 of the award document, are obligated to this agreement.

(2) Subject to availability of funds, and an executed document by the AO, the difference between the current funding and the total estimated amount of Federal funding may be obligated to this Agreement.

(3) The FHWA's liability to make payments to the Recipient is limited to those funds obligated under this Agreement as indicated above and any subsequent amendments.

B. INDIRECT COSTS

Indirect costs are allowable under this Agreement in accordance with the Recipient's Federally Negotiated Indirect Cost Rates as documented in writing and approved by the Recipient's cognizant Government agency. In the absence of such Government-approved indirect rates, the following rates are hereby approved for use under this agreement as shown below:

Type*	***Indirect Rate***	***Period***	***Rate (%)***	***Base***
(* Information to be filled in at award ***)**				

*Types of Rates: Pred = Predetermined; Fixed = Fixed; Final = Final;
Prov = Provisional/billing; or De minimus.

In the event the Recipient determines the need to adjust the above listed rates, the Recipient will notify the AO of the planned adjustment and provide rationale for such adjustment. In the event such adjustment rates have not been audited by a Federal agency, the adjustment of rates must be pre-approved in writing by the AO.

This Indirect Cost provision does not operate to waive the limitations on Federal funding provided in this document. The Recipient's audited final indirect costs are allowable only insofar as they do not cause the Recipient to exceed the total obligated funding.

C. KEY PERSONNEL

Pursuant to 2 CFR 200.308(c)(2), the Recipient must request prior written approval from the AO for any change in Key Personnel specified in the award. The following person(s) are/have been identified as Key Personnel:

Name	Title/Position
	Project Manager
	Principal Investigator
	Co-Principal Investigator
	Co-Principal Investigator
	Marketing Staff

D. PROGRAM INCOME

Pursuant to 2 CFR 200.307, Program income earned during the agreement period must be added to the Federal award and used for the purposes and under the conditions of the Federal award, unless otherwise approved by the AO. Program income must not be used to offset the Federal or Recipient contribution to this project.

E. SUBAWARDS

Unless described in the application and funded in the approved award, the Recipient must obtain prior written approval from the AO for the subaward, transfer, or contracting out of any work under this award. This provision does not apply to the acquisition of supplies, material, equipment, or general support services.

The following subawards are currently approved under the Agreement:

Name
(*** to be filled in at award ***)

F. CONFERENCE SUPPORT RESTRICTIONS

The Recipient must obtain written approval from the AOR prior to incurring any costs for conference support. See the definition of conference as contained in 2 CFR 200.432.

Food and beverage costs are not allowable conference expenses for reimbursement under this Agreement.

Note: Costs of meals are allowable as a travel per diem expense for individuals on travel status and pursuant to the Travel clause of this Agreement.

G. PERSONALLY IDENTIFIABLE INFORMATION (PII)

Personally Identifiable Information (PII) as defined at 2 CFR Part 200.1 will not be requested unless necessary and only with prior written approval of the AO with concurrence from the AOR.

H. PUBLIC ACCESS TO DOCUMENTS

The Applicant agrees that the resulting deliverables/documentation submitted to the FHWA under this Agreement may be posted online for public access and/or shared by FHWA with other interested parties. The FHWA anticipates the documents cited herein may be posted on an FHWA website or other appropriate website.

I. PUBLIC ACCESS REQUIREMENTS AND COMPLIANCE

In response to the White House Office of Science and Technology Policy memorandum dated February 22, 2013, entitled *Increasing Access to the Results of Federally Funded Scientific Research,* DOT is incorporating Public Access requirements into all funding awards (grants and cooperative agreements) for scientific research. This section sets forth the requirements a funding recipient must satisfy to be in full compliance with the USDOT Public Access plan. For all wholly or partially federal funded scientific research agreements, the Recipient hereby agrees to comply with the requirements of the USDOT Public Access plan. The *Recipient* is required to include these obligations in any sub-awards or other related funding agreements. The full requirements of the DOT Public Access plan requirements include, but are not limited to, the following:

1) Copyright License

Recipient hereby grants to the USDOT a worldwide, non-exclusive, non-transferable, paid-up, royalty-free copyright license, including all rights under copyright, to any and all Publications and Digital Data Sets as such terms are defined in the USDOT Public Access plan, resulting from scientific research funded either fully or partially by this funding agreement. *Recipient* herein acknowledges that the above copyright license grant is first in time to any and all other grants of a copyright license to such Publications and/or Digital Data Sets, and that USDOT shall have priority over any other claim of exclusive copyright to same.

2) Reporting and Compliance Activities

Recipient hereby agrees to satisfy the reporting and compliance requirements as set forth in the USDOT Public Access plan, including, but not limited to, the submission and approval of a Data Management Plan, the use of Open Researcher and Contributor ID (ORCID) numbers, the creation and maintenance of a research project record in the Transportation Research Board's (TRB) Research in Progress (RiP) database, and the

timely and complete submission of all required publications and associated digital data sets as such terms are defined in the DOT Public Access plan. Additional information about how to comply with the requirements can be found at: https://ntl.bts.gov/public-access/how-comply

3) Section 508 Requirements

The following applies to all FHWA Contracts issued on or after January 18, 2018, containing Information and Communication Technology (ICT) as a deliverable. In addition to the work requirements specified in this statement of work, vendors must ensure that all ICT that they prepare will meet the requirements of Section 508 of the Rehabilitation Act and the Information and Communication Technology (ICT) Final Standards and Guidelines (508 Refresh) at 36 CFR Part 1194.

As defined in the 508 Refresh, at 36 CFR Part 1194, Appendix A, E103.4, ICT is "Information technology and other equipment, systems, technologies, or processes, for which the principal function is the creation, manipulation, storage, display, receipt, or transmission of electronic data and information, as well as any associated content. Examples of ICT include but are not limited to: computers and peripheral equipment; information kiosks and transaction machines; telecommunications equipment; customer premises equipment; multifunction office machines; software; applications; Web sites; videos; and, electronic documents."

Section 508 requires that all electronic products prepared for the Federal Government be accessible to persons with disabilities, including those with vision, hearing, cognitive, and mobility impairments.

Applicable Standards:

- Appendix A to Part 1194 – Section 508 of the Rehabilitation Act: Application and Scoping Requirements
- Appendix B to Part 1194 – Section 255 of the Communications Act: Application and Scoping Requirements
- Appendix C to Part 1194 – Functional Performance Criteria and Technical Requirements

Section 508 Refresh standards are available at https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh.

Before final acceptance of any ICT item, including updates and replacements, if the contractor claims its products or services satisfy the applicable Revised 508 Standards specified in the statement of work, and the contracting officer's representative, in coordination with the contracting officer, determines that any furnished ICT item is not in compliance with such requirements, the contracting officer will promptly inform the contractor in writing of the noncompliance. The contractor shall, at no cost to the agency, repair or replace the non-compliant products or services within the period specified by the contracting officer.

J. DATA RIGHTS

The Recipient must make available to the FHWA copies of all work developed in performance with this Agreement, including but not limited to software and data. Data rights under this agreement shall be in accordance with 2 CFR 200.315, Intangible property.

Funded researchers must comply with the U.S. DOT Public Access Plan (https://doi.org/10.21949/1520559) of research outputs acquired or generated during the course of the project. Research outputs are defined for the purpose of this contract – and as consistent with Federal laws (including FAR 52.227-14) and the DOT Public Access Plan (https://doi.org/10.21949/1520559) – as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings, as may be textually represented in a publication or stored in a digital machine-readable format for further computational analysis. This term includes, but is not limited to, publications, research data, source code, and computer software documentation. This definition includes at a minimum the data required to validate research findings. It does include the refined and/or compiled data on which final research findings and conclusions are based.

K. DESIGNATION AS RESEARCH OR NON-RESEARCH AGREEMENT

This agreement is designated as: NON-RESEARCH

L. ORDER OF PRECEDENCE

The Recipient's technical and budget applications are accepted, approved, and incorporated herein as Attachments A and B. In the event of any conflict between this agreement document and the Recipient's proposal and/or application, this Agreement document shall prevail.

M. AGREEMENT PERFORMANCE REQUIREMENTS SUMMARY

Attached Agreement Performance Requirements Summary documents the performance requirements of this Agreement and the standard against which the Recipient’s performance will be measured.

N. CIVIL RIGHTS AND TITLE VI

As a condition of a grant award, grant recipients should demonstrate that the recipient has a plan for compliance with civil rights obligations and nondiscrimination laws, including Title VI of the Civil Rights Act of 1964 and implementing regulations (49 CFR Part 21), the Americans with Disabilities Act of 1990 (ADA), and Section 504 of the Rehabilitation Act, all other civil rights requirements, and accompanying regulations. FHWA’s Office of Civil Rights may work with awarded grant recipients to ensure full compliance.

O. DISPUTES

The parties to this Agreement will communicate with one another in good faith and in a timely and cooperative manner when raising issues under this provision. Any dispute, which for the purposes of this provision includes any disagreement or claim, between the FHWA and the Recipient concerning questions of fact or law arising from or in connection with this Agreement and whether or not involving alleged breach of this Agreement, may be raised only under this Disputes provision.

Whenever a dispute arises, the parties will attempt to resolve the issues involved by discussion and mutual agreement as soon as practical. In no event will a dispute which arose more than three months prior to the notification made under the following paragraph of this provision constitute the basis for relief under this article unless FHWA waives this requirement.

Failing resolution by mutual agreement, the aggrieved party will document the dispute by notifying the other party in writing of the relevant facts, identify unresolved issues and specify the clarification or remedy sought. Within five working days after providing written notice to the other party, the aggrieved party may, in writing, request a decision from one level above the AO. The AO will conduct a review of the matters in dispute and render a decision in writing within thirty calendar days of receipt of such written request. Any decision of the AO is final and binding unless a party will, within thirty calendar days, request further review as provided below.

Upon written request to the FHWA Director, Office of Acquisition and Grants Management or designee, made within thirty calendar days after the AO's written decision or upon unavailability of a decision within the stated time frame under the preceding paragraph, the dispute will be further reviewed. This review will be conducted by the Director, Office of Acquisition and Grants Management. Following the review, the Director, Office of Acquisition and Grants Management, will resolve the issues and notify the parties in writing. Such resolution is not subject to further administrative review and to the extent permitted by law, will be final and binding. Nothing in this Agreement is intended to prevent the parties from pursuing disputes in a United States Federal Court of competent jurisdiction.

P. CLOSEOUT OF AGREEMENT FILE

The Government will initiate the administrative closeout of the cooperative agreement after receiving evidence that all technical work and administrative requirements have been completed. The Recipient shall furnish all required documents in support of the closeout of the cooperative agreement within the timeframes requested by the Government. The Government anticipates the timeframe to complete administrative closeout of the cooperative agreement will not exceed six (6) months.

3. REPORTING

A. PERFORMANCE REPORTING

A.1 Performance Measure Data Collection.

The Recipient shall collect the data necessary to report on each performance measure that is identified in the Performance Measurement Table in Attachment A.

A.2 Work Plan Performance Measurement Report.

The Recipient shall submit to the FHWA a proposed Performance Measure with the Work Plan Proposal. The Recipient shall submit to FHWA a Pre-Work Plan Performance Measurement Report no more than 30 Days after the award date. The Report shall contain, for each relevant Work Plan task:

(1) baseline data for each performance measure that is identified in the Performance Measurement Table in Attachment A, accurate as of the Pre-Work Plan Measurement Date that is stated in Attachment A; and

(2) a detailed description of the data sources, assumptions, variability, and estimated levels of precision for each measure.

A.3 Interim Performance Measurement Reports.

After project completion, the Recipient shall submit to the FHWA, on an annual basis, (to be specified in the Performance Measurement Table in Attachment A), an Interim Performance Measurement Report containing data for each performance measure that is identified in that table, accurate as of the final date of the measurement period specified in that table.

A.4 Project Outcomes Report.

The Recipient shall submit to the FHWA, on or before the Work Plan Outcomes Report Date that is stated in Attachment A, a Work Plan Outcomes Report that contains:

(1) a narrative discussion detailing project successes and the influence of external factors on Work Plan expectations;

(2) all baseline and interim performance measurement data for tasks that the Recipient reported in the Pre-Work Plan Performance Measurement Report and the Interim Performance Measurement Reports; and

(3) an *ex post* examination of technology effectiveness relative to the baseline data that the Recipient reported for the tasks in the Pre-Work Plan Performance Measurement Report.

ADDRESSES FOR SUBMITTAL OF REPORTS AND DOCUMENTS

The Recipient shall submit all required reports and documents, under transmittal letter referencing the Cooperative Agreement number, as follows:

Submit an electronic copy to the Agreement Specialist at the following address: XXXX@dot.gov

Submit one electronic copy to the AOR at the following address: TBD, **(**to be filled in at award**)**

A. QUARTERLY PROGRESS REPORT

The Recipient must submit an electronic copy of the SF-425, Federal Financial Report, and SF-425A, Federal Financial Report Attachment (if applicable). The forms must be submitted to the AOR and the Agreement Specialist on or before the 30th of the month following the calendar quarter being reported. Final forms are due 90 days after the end of the Agreement period of performance.

These forms may be found by searching using the form numbers at: https://www.gsa.gov/forms-library/federal-financial-report

Calendar quarters are defined as:		Reports due on or before:
1st:	January — March	April 30th
2nd:	April — June	July 30th
3rd:	July — September	October 30th
4th:	October — December	January 30th

The quarterly progress report must include the required certification pursuant to 2 CFR 200.415.

In addition to the financial report, the Recipient must provide a quarterly progress report with following required attached information:

a. Work performed for the current quarter;
b. Work planned for the upcoming quarter;
c. Description of any problem encountered or anticipated that will affect the completion of the work within the time and fiscal constraints as set forth in the Agreement, together with recommended solutions to such problems; or a statement that no problems were encountered;
d. A tabulation, clearly delineated by Federal share, cost share and total, of the current and cumulative costs expended by cost element (labor, travel, indirect costs, sub-recipient/subcontractor, etc.) by quarter versus budgeted costs;

e. Work performed in support of the FHWA and DOT Strategic Goals; and
f. Budget revisions.

With the progress report, include the following information as attached pages:

- SF-425, Federal Financial Report, and
- SF-425A, Federal Financial Report Attachment (if applicable).

B. ANNUAL BUDGET REVIEW AND PROGRAM PLAN

The Recipient must submit an electronic copy and one hard copy of the Annual Budget Review and Program Plan to the AOR and one electronic copy and one hard copy to the Agreement Specialist 60 days prior to the anniversary date of this Agreement. The Annual Budget Review and Program Plan must include the required certification pursuant to 2 CFR 200.415. The Annual Budget Review and Program Plan must provide a detailed schedule of activities, estimate of specific performance objectives, include forecasted expenditures, and schedule of milestones for the upcoming year. If there are no proposed deviations from the Approved Project Budget, the Annual Budget Review must contain a statement stating such. The Recipient must meet via teleconference or web conference with the FHWA to discuss the Annual Budget Review and Program Plan. Work proposed under the Annual Budget Review and Program Plan must not commence until AO's written approval is received.

SECTION G – FEDERAL AWARDING AGENCY CONTACTS

Address any questions to:

Freida Byrd, Agreement Specialist
Federal Highway Administration
Office of Acquisition and Grants Management
Email: Freida.Byrd@dot.gov
Phone: 202-366-6547

Secondary point of contact is:

Hector Santamaria, AO/Team Leader
Federal Highway Administration
Office of Acquisition and Grants Management
Email: hector.santamaria@dot.gov
Phone: (202) 493-2402

SECTION H – OTHER INFORMATION

No other information.

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