REQUEST FOR INDUSTRY REVIEW

Project: Advancement of SMART METRO Digital Twin Platform with Agentic Artificial Intelligence (AI) for Transportation and Infrastructure Optimization, Efficiency, Decision-making, & Prioritization Process

Purpose: The Broward Metropolitan Planning Organization (Broward MPO) seeks to foster collaboration and innovation by inviting industry stakeholders to provide their valuable insights, comments, and feedback on the draft scope of work for the above referenced project. By engaging with experts, the Broward MPO aims to refine and enhance the draft scope of work to ensure it meets the highest standards of excellence and aligns with industry requirements and expectations. This collaborative approach will help the Broward MPO deliver impactful outcomes that are scaled to benefit MPOs across the nation and industry partners. On **February 25, 2026**, the Broward MPO will host an Industry Forum at the 2026 Safe Roads Summit for this project to provide an overview and an analysis of the industry review **prior to a formal solicitation being advertised around March 2026. Issuance of this Request for Industry Review does not guarantee the advertisement of a formal solicitation.**

Organization: Broward MPO

Submission of Comments Deadline: 5:00 PM, EST, January 5, 2026

Advertisement Portal: **DemandStar & Broward MPO Website**

Submittal of Comments via Email: **ai@browardmpo.org**

To participate in the February 25, 2026, Industry Forum, please register at the link below.

Register here: **Early Bird Registration**
Early discount valid through December 16, 2025 @11:59pm
Sponsorship Deck for the Safe Roads Summit: https://bit.ly/SRS2026Sponsor

Draft Industry Forum Agenda

1. Welcome – 15 minutes
2. Scope of Work Overview, Grant Details, and Q&A – 45 minutes
3. Technical Presentations from Industry Experts* – 90 minutes
4. Networking & Collaboration Opportunities Event – 45 minutes

Presentations of company's offerings applicable to the project must be submitted to the MPO by email at ai@browardmpo.org by December 16, 2025. The maximum length of the presentation is 10 minutes.

The first nine (9) presentations submitted will be selected for the Industry Forum. Additional opportunities for companies to showcase their offers will be available in the meeting space at the Safe Roads Summit.

Broward MPO
Metropolitan Planning Organization

SECTION I. PURPOSE AND BACKGROUND

The Broward MPO seeks qualified firms to design, develop, and deploy at-scale a Digital Twin Platform prototype called SMART METRO with enhanced Agentic AI to simulate, plan, and prioritize transportation and infrastructure projects in a virtual environment. At-scale, the SMART METRO Platform will allow users to model and test infrastructure investments before implementation to ensure projects meet or exceed performance metrics related to safety, efficiency, and optimization of the transportation network and identifying, quantifying, and comparing expected benefits and costs of an investment, while integrating assessments across economic development, land use, stormwater management, and environmental assets.

The following scope of work aligns with the policy objectives described in President Trump's "Winning the Race: America's AI Action Plan" (July 2025), which outlines national priorities for accelerating innovation, building AI infrastructure, and fostering partnerships to advance trustworthy and high-performance AI systems. The selected Consultant shall demonstrate how their proposed solution supports these objectives while ensuring compliance with applicable federal, state, and regional (e.g., MPO) planning and project delivery processes.

Additional information on the SMART METRO prototype can be accessed here: https://www.browardmpo.org/major-initiatives/transformation

SECTION II. SCOPE OF WORK

Task 1. Project Management and Coordination

Develop a Project Management Plan (PMP), coordinate with federal, state, and local partners, and ensure compliance with 2 CFR 200 Uniform Guidance. Include documentation mapping project tasks to relevant priorities from the America's AI Action Plan, emphasizing alignment with national AI infrastructure and innovation goals.

Task 2. SMART METRO Digital Twin At-scale Framework Development

Design at-scale digital twin architecture integrating various datasets. Ensure interoperability with tools and models, such as Geographic Information System (GIS), Building Information Modeling (BIM), and Internet of Things (IoT) data, and provide metadata governance to ensure data quality and transparency.

Task 3. Agentic AI Integration and Simulation Environment

Implement an Agentic AI layer for autonomous scenario generation and optimization, incorporating explainable AI principles to ensure transparency and accountability. Demonstrate compliance with neutrality and auditability provisions consistent with the America's AI Action Plan. This task further integrates predictive and prescriptive machine

learning environments focusing on enhancing systems integration to ensure scalability, reliability, and security. Incorporating additional data sources and simulation tools will support unified workflows and improve overall functionality. Advancing the SMART METRO Platform prototype into an AI-powered agent with adaptive learning capabilities will enable more sophisticated transportation modeling, analytics, performance metrics, and 3D visuals for the following use cases.

Example Use Cases for At-scale SMART METRO Platform:

Safety

Leveraging additional capabilities and data, SMART METRO will analyze killed or seriously injured (KSI) crashes and identify appropriate proven safety countermeasures and predictive capabilities to prevent crashes before they occur utilizing neural networks for transportation pattern recognition. SMART METRO will incorporate AI-driven evaluation of crash characteristics, weather conditions, roadway design, and surrounding land uses to proactively identify high-risk locations. By analyzing these factors, SMART METRO can predict where future crashes may occur and recommend data-informed interventions and Federal Highway Administration (FHWA) proven safety countermeasures, ranging from infrastructure improvements to operational or policy changes, to enhance safety and reduce risk.

Congestion Management and Travel Demand Forecasting

Leveraging state Department of Transportation (DOT) sensor data and technical expertise, SMART METRO will enhance monitoring and management of transportation infrastructure and provide "on-the-fly" scenarios and analyses of the travel demand model. SMART METRO will prioritize integration of I-75 roadway and managed lanes infrastructure at two locations within Broward County, enabling real-time data collection and operational insights. By connecting state-level transportation data with municipal planning efforts, SMART METRO will facilitate seamless, multi-jurisdictional collaboration. This vertical integration will support comprehensive, real-time analysis of traffic patterns, infrastructure reliability, and incident response, resulting in coordinated solutions that address both local, regional, and statewide transportation needs.

Technology Advancements

SMART METRO seeks to identify the tools best suited to meet the needs of the expanding use cases and growing user base. Greater functionality includes but not limited to:
Dynamic Virtual Environment: The SMART METRO Platform prototype will evolve beyond a simple 2D GIS map into a robust 3D model. The value of a 3D model extends far

beyond visualization or immersion, as it provides essential spatial context and reveals relationships among places, other infrastructure, and human interaction. By layering information about people and infrastructure onto a 3D environment, it creates a comprehensive view of how entities interact. Ultimately, the user experience of engaging in a 3D environment will lead to better informed decision-making.

Advanced Simulation: SMART METRO will prioritize the integration of simulation to further enhance the transportation lifecycle and streamline workflows for all stakeholders. This expansion will include travel demand simulation, allowing users to model and forecast how changes such as infrastructure, land use, or policy will influence travel patterns across the region. Regardless of the specific simulation tool used, enabling a more seamless and efficient approach to running and prompting scenarios will significantly improve overall effectiveness and provide more integrated experience for planners, analysts, and decision makers.

Workflow Automation: SMART METRO will have the capability to address standard workflow needs, including MPO products such as Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), List of Priority Projects (LOPP), Unified Planning Work Program (UPWP), National Environmental Policy Act (NEPA) review documentation, benefit-cost ratio analyses, and other replicable MPO processes. SMART METRO will streamline workflows for these and other work products by automating compliance, ensuring adherence to regulations, and optimizing resource allocation for efficient project delivery.

Geographic Expansion

Broward MPO is committed to exploring opportunities to expand SMART METRO beyond Broward County, demonstrating its replicability in diverse regions with varying conditions. SMART METRO will focus on identifying and engaging potential partners for expansion, leveraging lessons learned and proven capabilities to support broader regional planning initiatives.

SMART METRO will also consider expansion into distant regions with different demographic, political, and physical contexts. These areas prioritize technological advancement and face unique challenges. Replicating SMART METRO in other locations would validate its adaptability, value, and ability to address a wide range of use cases. By tailoring the SMART METRO Platform to local requirements and integrating region-specific data sources, SMART METRO can support informed decision-making and strategic investment in various locations. Through these expansion efforts will position SMART METRO as a scalable, flexible solution for regional planning, capable of driving innovation and collaboration across geographic boundaries.

Task 4. Transportation Planning, Project Delivery, and Performance Evaluation

Develop automation of planning processes, accelerated project delivery and continuous performance evaluation based on federal, state, and MPO metrics, including safety, efficiency, economic, and environmental indicators.

Task 5. Cross-Sector Integration

Enable cross-sector assessment linking transportation, housing, stormwater, and economic systems, quantifying co-benefits and trade-offs consistent with regional planning and community goals.

Task 6. Secure Decision Support Interface and Advanced User Experience

Advance the SMART METRO prototype into a secure, web-based interface with advanced User Interface (UI) and User Experience (UX) such as 3D data visualization, interactive simulation, and transparent reporting images. Ensure accessibility and compliance with federal and state cybersecurity standards.

Task 7. Validation, Testing, and Training

Conduct testing, validation, and bias audits. Provide staff training, user manuals, and post-deployment hypercare support to ensure continued performance and compliance.

Task 8. Prioritization Process (Funded by the USDOT Prioritization Process Pilot Program Grant)

Task 8a. Develop and implement an innovative, data-driven prioritization process that ensures public funds are allocated efficiently and transparently. The SMART METRO prioritization process shall incorporate measurable performance criteria, AI-enabled analytics, and innovative public engagement tools and methods to clearly document decision justification, visualize outcomes, and enhance public understanding of how MPO projects are prioritized, funded, and delivered.

Task 8b. As an integrated component to SMART METRO, develop and document an innovative, data-driven prioritization process for transportation projects that enhances transparency, efficiency, and alignment with adopted planning objectives. The work shall begin with a comprehensive assessment of the current prioritization framework to identify strengths, weaknesses, and areas for improvement, including any missing quantitative or qualitative data necessary to support informed decision-making. Based on this assessment, conduct a gap analysis to determine where enhancements to the existing process are warranted and recommend refinements that ensure the process is objective, unbiased, and performance- based.

Task 8c. Integrate planning objectives and established performance targets directly into the prioritization methodology to ensure that the evaluation and ranking of transportation

projects are consistent with federal, state, and Broward MPO goals. Engagement with the public, partner agencies, and key stakeholders shall be carried out throughout the project using both in-person and virtual formats, including multimedia engagement tools and interactive workshops designed to collect meaningful feedback on proposed prioritization improvements.

Task 8d. Design and integrate the refined prioritization methodology within an interactive, AI-enabled online platform that incorporates appropriate data management, version control, and submission workflows for use by external local agencies. Perform internal validation, test runs, and beta testing of the prioritization platform to ensure functionality, accuracy, and usability prior to final implementation.

Task 8e. Upon completion of testing and validation, prepare a comprehensive written report documenting the final prioritization methodology, including assumptions, data sources, and performance linkages. Develop accompanying training materials and a user guide that clearly outline the prioritization process, step-by-step instructions for use, and guidance on data entry, review, and reporting consistent with state and federal documentation standards.

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