

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

MEMORANDUM

TO: Members, Northern Virginia Transportation Authority

FROM: Monica Backmon, Executive Director

DATE: June 7, 2018

SUBJECT: Authorization to Submit Regional Multi-Modal Mobility Program SMART SCALE Application

1. **Purpose.** To seek Northern Virginia Transportation Authority (NVTA) authorization to submit a SMART SCALE project application for a Regional Multi-Modal Mobility Program (RM3P) Project.
2. **Suggested Motion:** *I move Authority Authorization to Submit the Regional Multi-Modal Mobility Program Project SMART SCALE Application with Resolution 18-01, for the Commonwealth of Virginia's SMART SCALE Prioritization Process.*
3. **Background.** SMART SCALE is the primary funding program for transportation projects using Commonwealth of Virginia revenues. Similar to the Authority's Six Year Program, SMART SCALE uses a biennial schedule and incorporates a data-driven process to screen and evaluate projects, and to prioritize investment decisions.

The Authority previously submitted an application for the Transform 66 Outside the Beltway Project, in the first round of SMART SCALE when the program was named HB2 after its founding legislation House Bill 2 (2014). While the Authority's HB2/SMART SCALE application for \$300 million was successful, the funding was not needed as the selected concessionaire team for the Transform 66 Outside the Beltway project declined to use any public revenues. The \$300 million award was rolled over to the second round of SMART SCALE, for which the Authority did not submit a project application.

The SMART SCALE program is now in its third round. The final deadline for submitting SMART SCALE applications in this round is August 1, 2018. Approved projects will be included in the Commonwealth's Six Year Improvement Program, to be adopted in June 2019, by the Commonwealth Transportation Board, using FY2024-2025 revenues. The Authority's project will be evaluated against other projects in Northern Virginia and as well as throughout the state.

For the RM3P project application to be considered for SMART SCALE funding, the Authority must include a resolution of support.

- 4. The Authority's SMART SCALE Application.** NVTA staff have worked closely as a part of a coalition of Northern Virginia state, regional, and local partners to implement a Regional Multi-Modal Mobility Program (RM3P), using an integrated, multi-modal, technology-based approach to mobility and congestion management. This Project will implement new mobility applications, tools, and data services that build on and complement earlier phases of the RM3P, including the VDOT-led I-95/395 and East-West Integrated Corridor Management Deployment Plans. NVTA is in a unique position to submit this application on behalf of the region, for the mutual benefit of all coalition members. This regional coalition has demonstrated, over the past several years, a long-standing commitment to work together to develop technology-based solutions to address Northern Virginia's transportation challenges. Referred to as Integrated Corridor Management (ICM), VDOT, DRPT, and NVTA jointly submitted a request in 2017 to the U.S. Department of Transportation for funding to deploy some foundational components of this ICM system. While the application was unsuccessful, VDOT plans to use the Commonwealth's matching funds to commence the deployment of these foundational components. The NVTA application, if successful, will expand the project beyond these foundational components, including:

 - a. **Enhance Commuter Parking Data.** This task will target/prioritize parking lots along multiple corridors, serving commuter bus, rail, and other high demand locations. By communicating parking availability in real time, this task will facilitate carpooling, enhance access to transit, increase shared vehicle use, and reduce congestion;
 - b. **Develop a Mobility as a Service (MaaS) Dynamic Service Gap Dashboard.** Targeted at transportation/mobility providers, this task will encourage multi-modal travel by identifying service gaps, incentivizing MaaS activity, and facilitating first/last mile services;
 - c. **Implement an AI-Based Decision Support System with Prediction.** This task will use real time conditions and historic data to predict incidents and their impacts. This information will enable transportation system operators to better respond to incidents, reducing mobility impacts across the transportation system; and
 - d. **Deploy a Data-Driven Tool to Incentivize Customer Mode and Route Choice.** This task will customize existing tools such as the free *incenTrip* application (developed by UMD), providing customers a range of multi-modal transportation choices. Incentives will influence travel behaviors such as route, mode, and temporal choices, balancing travel demand during both recurrent and non-recurrent congestion.
- 5. Benefits of Project.** The RM3P Project will use information and communications technologies to provide travelers, commuters, service providers and transportation system operators with tools that will optimize system performance, improve travel time reliability,

and support on-demand multi-modal trip options.

6. **Funding Request.** While NVTA staff are finalizing the details of project application, the funding request is not expected to exceed \$15 million.

No matching funds are requested from the NVTA Regional Revenue Fund with this application. The Authority previously funded a number of related transportation technology projects in Arlington County and the City of Alexandria.

7. **Regional Priorities.** The RM3P Project is fully consistent with the regional priorities in TransAction, which includes multiple projects that embrace the ICM approach, including Travel Demand Management (TDM):

- a. **Project #73** East-West ICM Program: Parallel Arterial Operations Improvements;
- b. **Project #94** I-95/I-395 ICM Program;
- c. **Project #338** I-95 ITS/ICM Improvements;
- d. **Project #339** Northern Virginia ITS/ICM Improvements; and
- e. **Project #340** Northern Virginia TDM Strategies.

8. **Consistency with the Authority's Strategic Plan.** The RM3P Project is also consistent with the goals included in the Authority's current Five-Year Strategic Plan:

- a. **Regional Prosperity:** Foster regional prosperity by investing in a sustainable transportation network that supports economic growth, while balancing quality of life;
- b. **Mobility:** Through sound planning and programming, increase transportation connectivity and available transportation options to reduce congestion;
- c. **Innovation:** Lead region in planning and advocating for emerging transportation technologies which address future transportation, work place and development trends; and
- d. **Funding:** Support transportation infrastructure development through excellent stewardship of taxpayer dollars, maximizing opportunities from existing sources, and advocating for additional transportation revenues.

9. **Next steps.** Subject to Authority approval, NVTA staff will finalize and submit the project application by the August 1, 2018 deadline.

Attachment: Draft Regional Mutli-Modal Mobility Program SMART SCALE Application
Draft Resolution 18-01



SMART SCALE Application

Northern Virginia Regional Multi-Modal Mobility Program

Project Status: Pending

Project ID: 4180

General

Point of Contact Information

| Project Point of Contact Name | Point of Contact Email | Point of Contact Phone |
|-------------------------------|-----------------------------------|------------------------|
| Keith Jasper | keith.jasper@thenovaauthority.org | (703) 642-4655 |

Project Information

| Project Title | Principal Improvement |
|---|-----------------------|
| Northern Virginia Regional Multi-Modal Mobility Program | Highway |

Project Short Description

A coalition of Northern Virginia state, regional, and local partners plans to implement a Regional Multi-Modal Mobility Program (RM3P), using an integrated, multi-modal, technology-based approach to mobility and congestion management.

| Does this project include any improvements to non-VDOT maintained roadways? | Application Program | VDOT District |
|---|-------------------------|-------------------|
| No | Statewide High Priority | Northern Virginia |

Project Detailed Description

This project will implement new mobility applications, tools, and data services that build on and complement earlier phases of the RM3P, including the VDOT-led I-95/395 and East-West Integrated Corridor Management Deployment Plans. This project will enhance the information and support services available to NoVA travelers, and consists of four tasks:

- Task A: Enhance Commuter Parking Data. This task will target/prioritize parking lots along multiple corridors, serving commuter bus, rail, and other high demand locations. By communicating parking availability in real time, this task will facilitate carpooling, enhance access to transit, increase shared vehicle use, and reduce congestion.
- Task B: Develop a Mobility as a Service (MaaS) Dynamic Service Gap Dashboard. Targeted at transportation/mobility providers, this task will encourage multi-modal travel by identifying service gaps, incentivizing MaaS activity, and facilitating first/last mile services.
- Task C: Implement an AI-Based Decision Support System with Prediction. This task will use real time conditions and historic data to predict incidents and their impacts. This information will enable transportation system operators to better respond to incidents, reducing mobility impacts across the transportation system.
- Task D: Deploy a Data-Driven Tool to Incentivize Customer Mode and Route Choice. This task will customize existing tools such as the free incenTrip application (developed by UMD), providing customers a range of multi-modal transportation choices. Incentives will influence travel behaviors such as route, mode, and temporal choices, balancing travel demand during both recurrent and non-recurrent congestion. Overall, this project will use information and communications technologies to provide travelers, commuters, service providers and transportation system operators with tools that will optimize system performance, improve travel time reliability, and support on-demand multi-modal trip options.

Location

VTRANS Needs Categories

- Corridor of Statewide Significance
- Regional Network

Districts Served

MPOs Served

PDCs Served

Jurisdictions Served

Need Justifications

Corridor of Statewide Significance

| | | |
|-----|--|---|
| H2I | Northern Virginia Corridor (I-66) - Congestion | The RM3P project will optimize system performance, improve travel time, and support on-demand multi-modal trip options. |
| I4G | Seminole Corridor (Route 29) - Safety | The RM3P project will optimize system performance, improve travel time, and support on-demand multi-modal trip options. |
| K3Q | Washington to North Carolina Corridor (I-95) - Reliability | The RM3P project will optimize system performance, improve travel time, and support on-demand multi-modal trip options. |
| G2D | North-South Corridor (New) - Mode | The RM3P project will optimize system |

Choice

performance, improve travel time, and support on-demand multi-modal trip options.

Regional Network

NOVA_C

Make roadway safety and operational improvements to alleviate bottlenecks and reduce acute congestion, including "hot spots" with frequent but unpredictable (non-recurring) congestion - Corridor Reliability, Network Connectivity

Recurring and non-recurring acute congestion events present major challenges to roadway users in all types of motorized vehicles, from passenger cars and motorcycles to buses and trucks. On corridors that support pedestrians and cyclists, motorized traffic congestion also threatens safety and efficiency for non-motorized travelers. The RM3P project will use technology-based solutions to optimize system performance, improve travel time reliability, and support on-demand multi-modal trip options, including on routes that lead to the airports and train stations that provide interregional transportation for people and goods. Information and communication technologies can be cost-effective ways to alleviate congestion. The RM3P project is regional in nature, and improvements will address many of the facilities identified by NVTA as corridors of regional importance.



Features

Highway Improvements

ITS Improvement(s) / Adaptive Signal Control

Bus Transit Improvements

Other Transit Technology Improvements

Travel Demand Management (TDM) Improvement(s)

TDM Other

 Factors

Accessibility

| | | |
|---------------|----------|------------------------|
| Accessibility | Response | Supporting Information |
|---------------|----------|------------------------|

Environment

| | | |
|-------------|----------|------------------------|
| Environment | Response | Supporting Information |
|-------------|----------|------------------------|

 Delivery/Funding

Project Delivery Information

Project Planning Status

Project Administered By Project Delivery Method

VDOT% Locality% Consultant%

Phase Estimate and Schedule

| | | | |
|--|----------------------|-------------------|-----------------|
| Phase Milestone | | Status | |
| PE (Survey, Environmental, Design) | | | |
| Percent Complete | Cost Estimate | Start Date | End Date |
| | \$0 | | |
| Phase Milestone | | Status | |
| RW (Right of Way and Easement Acquisition, Utility Relocation) | | | |
| Percent Complete | Cost Estimate | Start Date | End Date |
| | \$0 | | |

Phase Milestone**Status**

CN (Construction, Oversight, Inspection, Contingencies)

Percent Complete**Cost Estimate****Start Date****End Date**

\$0

Total Cost Estimate: \$0

Project Funding Sources

**Project UPC/DRPT
Project ID**

UPC Description

**VDOT / DRPT
(\$)
\$0**

Total SYIP: \$0

Other Committed Funds

**Other Funds Committed to
Project**

Description of Fund Type

Amount

Total Other Committed Funds: \$0

Cost Estimate

SMART SCALE Request

| | |
|------------------------|-----|
| Total SYIP Allocations | \$0 |
|------------------------|-----|

| | |
|-----------------------------|-----|
| Total Other Committed Funds | \$0 |
|-----------------------------|-----|

| | |
|-----------------------------------|-----|
| Total SMART SCALE Requested Funds | \$0 |
|-----------------------------------|-----|

| | |
|---------------------|-----|
| Total Cost Estimate | \$0 |
|---------------------|-----|



Economic Development Sites

| Site Name | Building square footage | Category of Property |
|-----------|-------------------------|----------------------|
| | | |

| Description | Attachment Type | File Name |
|-------------|-----------------|-----------|
| | | |



Supporting Documents

Current Attachments

| Description | Attachment Type | File Name |
|--|-----------------|---|
| Geographic area, project framework, and relationship between tasks and project framework | Project Sketch | Graphics Slides for NVTA 05-30-18v2.pdf |



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 600 East Main Street, Suite 2102
 Richmond, VA 23219
 (804) 786-4440



VDOT Central Office
 1401 East Broad Street
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 (804) 367-7623 (toll-free)
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NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

RESOLUTION 18-01

A RESOLUTION FOR THE SUPPORT OF THE AUTHORITY’S REGIONAL MULTI-MODAL MOBILITY PROGRAM PROJECT TO THE COMMONWEALTH OF VIRGINIA’S SMART SCALE PRIORITIZATION PROCESS

WHEREAS, Virginia House Bill 2, signed by the Governor on April 6, 2014 and effective as of July 1, 2014, required the development of a prioritization process, now referred to as SMART SCALE, and directed the Commonwealth Transportation Board to develop and use a scoring process for project selection by July 2016; and

WHEREAS, the Authority, as a regional entity for Northern Virginia, can submit projects located in a Corridor of Statewide Significance (CoSS) and those in the Regional Network, for consideration for the SMART SCALE evaluation process; and,

WHEREAS, Authority staff have worked with a coalition of Northern Virginia state, regional, and local partners for the development of the Regional Multi-Modal Mobility Program Project (RM3P); and,

WHEREAS, submission of the RM3P project to the Commonwealth for the Smart Scale process does not infer nor commit NVTa Regional Revenues to the project; and,

WHEREAS, Authority approval of the submission of the RM3P project requires a resolution of support by the Authority;

NOW, THEREFORE, BE IT RESOLVED BY THE NORTHERN VIRGINIA TRANSPORTATION AUTHORITY THAT THE AUTHORITY SUPPORT THE RM3P PROJECT DESCRIBED HEREIN AUTHORIZE THE EXECUTIVE DIRECTOR TO SUBMIT THE REGIONAL MULTI-MODAL MOBILITY PROGRAM PROJECT IS SUBMITTED TO THE COMMONWEALTH OF VIRGINIA SMART SCALE PROJECT PRIORITIZATION PROCESS:

- Regional Multi-Modal Mobility Program (RM3P): The RM3P project uses an integrated, multi-modal, technology-based approach to mobility and congestion management. This project will implement new mobility applications, tools, and data services that build on and complement earlier phases of the RM3P, including the VDOT-led I-95/395 and East-West Integrated Corridor Management Deployment Plans. The SMART SCALE request is approximately \$15,000,000.

Adopted by the Northern Virginia Transportation Authority on this 14th day of June, 2018

BY: _____

Chairman

ATTEST: _____

Clerk