

I-66 ACTIVE TRAFFIC MANAGEMENT SYSTEM

Frequently Asked Questions

1. What is Active Traffic Management?

Active Traffic Management (ATM) refers to an integrated set of operating strategies and technologies for managing traffic. It applies these strategies and technologies in an integrated fashion to manage the flow of traffic to increase mobility, improve safety, enhance incident management, maximize roadway capacity, and promote environmental sustainability. ATM has been deployed on several American highways, but is still a relatively new concept in the United States. It has also been employed on multiple roadways in Europe.

2. Where in Virginia will ATM be deployed?

ATM will be deployed on Interstate 66 in Northern Virginia. It will be applied on 34 miles of roadway along I-66, from the District of Columbia to Haymarket (US-15) in Prince William County.

3. Will one set of ATM strategies be used on the entire project?

No, the I-66 ATM corridor has been divided into five segments. Different combinations of ATM strategies and treatments are planned for each segment.

4. Will these strategies be employed on the weekends?

The ATM strategies will be employed round-the-clock, as needed – during both traditional peak periods and non-traditional times, including mid-day on weekdays and weekends. In fact, we are hopeful that use of the ATM strategies will have a significant, positive impact on traffic conditions during non-peak periods.

5. Will these strategies improve traffic conditions on I-66?

These strategies are intended to optimize mobility along the I-66 corridor by more effectively managing the congested conditions. While our traffic woes won't suddenly go away, the hope is that the length of time that travelers need to complete a trip will become more "reliable," or predictable.

6. Will the electronic signs lead to queuing of traffic because motorists inadvertently slow down to read the signs?

As the sample messages show, the lane-by-lane markers and accompanying displays (generally on both sides of the roads) are being expressly designed and positioned to promote readability and comprehensibility by travelers. It is not expected that drivers will need to slow down to read the messaging. Also, drivers will learn that, on much of the ATM corridor, the messages are repeated – so that if they miss some or all of the information the first time, they can pick it up at the next set of signage.

7. Will speed limits be increased on I-66?

No, posted speeds will not be increased on I-66 as a result of this project.

8. Will the role of public transit be increased in the corridor?

The role of public transit will not be impacted as a result of this project.

9. Will I-66 be widened to accommodate the ATM strategies?

The project focuses on implementation of a series of operational and technology strategies. It does not include roadway improvements or widening of the roadway beyond the construction of additional emergency pull-out areas.

10. Will additional right-of-way be required to install the strategies?

No, additional right-of-way will not be required to install these strategies.

11. Will these strategies delay the actual widening of I-66 or other projects in the corridor?

No, the ATM project will not delay other projects along the corridor. The state requires careful coordination between all of the proposed and programmed projects occurring along the I-66 corridor. Proposed implementations will be integrated, as appropriate, in the ATM design.

12. Will ATM installation affect traffic? What time of day will the work be done?

The ATM installation work will generally be carried out during the night time so there will be little or no impact to traffic during rush hours or holidays.

13. Will ATM strategies be incorporated on other Northern Virginia roads?

I-66 is the first corridor in Northern Virginia to implement an ATM system. Depending on the effectiveness and performance of the I-66 experience, ATM systems could be implemented on other area roadways. ATM systems have been implemented successfully in other parts of the country and in Europe.

14. How were the ATM treatments for specific segments determined?

Road usage patterns and crash data were studied. Also, travelers' needs were identified and studied in each of the five roadway segments. ATM solutions, or "treatments," were then identified to address each set of needs.

15. How will success of the ATM strategies be gauged?

VDOT will use a range of benchmarks, or "metrics," to assess the success of the project. These include: travel time, travel time reliability, travel delay time, length of travel delay queue, numbers of primary and secondary incidents, etc.

16. Can we expect that the ATM system will lead to fewer accidents on I-66?

A potential reduction in accidents is a reasonable expectation. When an accident occurs, the longer it takes to respond to and clear that accident, the greater the likelihood that follow-on, or "secondary," incidents will occur – drivers, impatient with the delay, may try to maneuver around the original crash and run into each other; vehicles run out of gas or overheat; etc. Since an important objective of ATM is reduction in incident response times, we expect to see reductions in the occurrence of secondary incidents. Other ATM systems have realized significant reductions in both primary and secondary accidents.

17. Will the CCTV cameras be used for enforcement purposes?

No.

18. Will the variable speed limits displayed on I-66 be advisory only or legally enforced?

No decision has been made yet about whether variable speed limits will be treated as advisory or legally enforced. VDOT is working closely with the Virginia State Police on how best to manage the limits. Regardless, it is expected that drivers will learn that when they observe the ATM guidance posted on the lane indicators and signs, they will most likely have the optimal traveling experience. Any time drivers engage in inappropriate or aggressive driving behavior, they will be vulnerable to being ticketed.

19. Will this project have environmental impacts?

No adverse environmental impacts are anticipated. Of course, if congestion levels moderate, even slightly, as a consequence of this project, we may possibly see a positive impact on air quality.

20. Who will manage and monitor the ATM system?

The I-66 ATM program will be managed by VDOT from the McConnell Public Safety and Transportation Operations Center (PSTOC). The center is located off West Ox Road, at 4890 Alliance Drive Fairfax, VA 22030.

21. Who are the “stakeholders” in this project and what role will they play in the adoption of these strategies?

The ATM project includes a variety of stakeholders – elected officials, emergency first responders, transportation officials, public works personnel, and various community advisory groups. These stakeholders will all play important roles in properly utilizing, promoting, and implementing the ATM system, technologies, and strategies along the corridor.

22. Have the Counties of Arlington, Fairfax, and Prince William signed on to the implementation of these strategies?

VDOT is coordinating development of the ATM plans and implementation strategies with Arlington County, Fairfax County, and Prince William County.

23. How much will this project cost?

Capital costs for the ATM project are estimated at \$32M.

24. How will this project be paid for?

Ninety percent of the project funds will come from federal sources. The remaining funds are state funds authorized by the General Assembly.

25. Will additional signage under the ATM project direct I-66 drivers involved in minor accidents to move their vehicles to designated emergency pull-off areas?

Current signage informs drivers to clear the roadway in the event of accidents. Messaging under the ATM project, in concert with the existing signage, will continue to emphasize the quick, safe movement of accident vehicles out of the mainline lanes.

26. How quickly will the new signs implemented by the ATM program be able to be turned on or changed?

Operators at PSTOC will have the ability to turn on the signs and change the messages instantly.

- 27. We have noticed references in project-related materials both to “ATM” and “ATDM.” What’s the difference?**
- “ATM” stands for “Active Traffic Management.” “ATDM” stands for “Active Traffic and Demand Management.” For the purposes of the I-66 project, “ATM” and “ATDM” are one and the same, and can be generally used interchangeably. In more technical terms, ATDM is a broader concept that emphasizes “demand” of the roadway infrastructure. In the future, if we expand the ATM work on I-66 to other highways in Northern Virginia, we will be able to properly talk about the real-time demands of the regional corridor. In that context, the term “ATDM” would more aptly apply.
- 28. Are there plans to improve the high-occupancy vehicle (HOV) lane markings on I-66, to more effectively demarcate the HOV lanes from the regular lanes?**
- There is currently a repaving and rehabilitation project underway on I-66. When repavement is completed, a planned double white line will be added to the roadway to differentiate the HOV lanes from the mainline lanes.
- 29. How does VDOT plan to integrate the new systems and technology with the current systems and technology within PSTOC?**
- It is currently anticipated that a software vendor, independent of the ATM design/build contractor, will develop the software for the I-66 ATM project. The vendor will integrate the software used in the field with the existing advanced traffic management software (ATMS) at PSTOC.
- 30. Does VDOT plan to assign I-66 exit numbers on the left-hand HOV exits that are currently used during non-HOV peak periods?**
- At this time, VDOT does not plan to assign exit numbers to the HOV exits, consistent with national best-practices.
- 31. Can treatments similar to the ones being implemented for Segment 3 (Exits 52-57) be implemented for Segments 4 and 5 (Exits 40-52)?**
- The treatments planned for each segment of roadway were carefully selected to address specific conditions and circumstances. The ATM approach is quite flexible, however, in that additional treatments can be added to each segment in the future as conditions merit and additional funding becomes available.
- 32. What is the timeline for the I-66/Route 29 interchange project and implementation of HOV on I-66 between Route 29 and Route 15? How will implementation of the ATM correlate with these infrastructure improvements?**
- Phase 1 of the I-66/Route 29 project is scheduled to be completed in late 2014, with the entire effort wrapping up in 2015. Technology enhancements are included in the widening project between Gainesville and Haymarket. These enhancements are reflected in the design of the ATM project.
- 33. What is the “contractual” timetable for the ATM project?**
- The ATM project will be developed and deployed using a design/build contract model. The design/build contractor will be selected using a two-step procurement process. In the first step, a

request-for-qualifications (RFQ) package will be issued by the end of 2011. Then, in 2012, a request-for-proposal (RFP) will be sent to those top teams deemed qualified through the RFQ process. The team selected through the RFP process will design and build the ATM system.

34. Will this project improve bus travel times on I-66?

The ATM project does not focus directly on transit. However, to the extent that congestion levels can be relieved due to improvements in operational efficiencies, these efficiencies should extend to reductions in bus travel times.

35. Can alerts be displayed on the dynamic message signs (DMS) advising travelers when the parking lots at Metro Stations are full, and directing travelers to other commuter lots, such as those off Stringfellow Road?

Funding is not included in the current ATM grant to monitor space availability in parking lots along the I-66 corridor. If, in the future, this information becomes available, it can be easily displayed on I-66 message signs.

36. Is the PowerPoint presentation from the *I-66 ATM Citizens Information Meeting*, held on July 28, 2011, available online?

Yes, the PowerPoint presentation is available on the I-66 ATM project website (http://viriniadot.org/projects/northernvirginia/i-66_atms.asp). The video and audio recording of the meeting may also be found on this website.