

Route 1 Multimodal Improvements Study Public Information Meeting No. 3

MEETING SUMMARY

SUBJECT: Public Information Meeting No. 3
DATE/TIME: Monday, November 14, 2022, 6:30 – 8:30 PM
LOCATION: Virtual, via GoToWebinar
PRESENTERS: **VDOT:** Dan Reinhard and Nick Roper
Kimley-Horn: John Martin, Geoff Giffin, and Anthony Gallo
Q&A FACILITATOR: **VDOT:** Andy Beacher

INTRODUCTION:

The Route 1 Multimodal Improvements Study is identifying enhanced multimodal connectivity and accommodations along and across Route 1 in Crystal City to meet the changing transportation needs of this growing urban activity center. The need for this study is two-fold:

1. Multimodal transportation demand is increasing from the creation of an additional Amazon U.S. Headquarters (HQ2) and other ongoing development in the Crystal City and Pentagon City area
2. These areas are already heavily developed with limited space for expanding the footprint of the transportation network

Phase 1 of this study was completed in October 2021 with the release of the Phase 1 Executive Summary and Full Report, available on the [project website](#). Based on the findings and conclusions of the first phase and the comparisons of the concepts using numerous measures of effectiveness, VDOT recommended converting the segment of elevated urban freeway between 12th Street South and 20th Street South to an at-grade urban boulevard with wide spaces along Route 1 for sidewalks, street trees, lighting, and other amenities desired by Arlington County residents and property owners, with safe crossings of Route 1 for pedestrians, bicyclists and other users. The recommended configuration will provide the greatest benefit to the corridor in the context of an evolving walkable, connected and urban Crystal City.

Phase 2 of this study began in December 2021 and is further exploring the feasibility of the at-grade urban boulevard recommended in Phase 1 by completing the following tasks:

- Develop Travel Demand Management (TDM) strategies to reduce vehicular trips through the area to below 2019 volumes
- Conduct additional feasibility analyses and multimodal street design, including reviewing a potential grade-separated pedestrian crossing at 18th Street South
- Update the Phase 1 multimodal transportation analyses

VDOT held the first public information meeting (PIM) for Phase 2 of the Route 1 Multimodal Improvements Study virtually via GoToWebinar on April 28, 2022, which was followed by PIM No. 2 on June 21, 2022. On Monday, November 14, 2022, VDOT hosted PIM No. 3 (virtually via GoToWebinar) to provide the public an opportunity to (1) learn about updated concepts and analysis of the future build conditions on Route 1; (2) provide input on proposed design elements along the corridor; and (3) ask questions and address concerns with the study team.

The virtual PIM No. 3, consisting of a 40-minute presentation and a 1-hour and 15-minute question-and-answer period with VDOT and the study team, was promoted via multiple VDOT social media accounts, email distribution, local newspapers, and the study website. The meeting was accessible to the public online or via the desktop application of GoToWebinar, or by phone using a call-in number provided. A copy of the meeting presentation and recording of the PIM are available on the project website. A total of 117 people registered for the virtual meeting; 81 people participated in the event.

SUMMARY OF DISCUSSION:

After the formal presentation, a Q&A discussion period was held during which members of the public asked questions and the study team provided responses. Listed below are questions posed during the meeting or prior to the comment deadline on December 12, 2022, with responses provided by VDOT. Comments and questions are grouped below by topic, and those that were presented by multiple individuals are marked in parentheses with the number of individuals who presented that comment or question (x2).

GENERAL COMMENTS

1. **Question: Can the comment deadline be extended to early January? (x1)**
Response: The comment deadline has been extended from Dec. 5 to Dec 12. A January comment deadline was not feasible to keep the project on schedule.
2. **Question: When will the PIM 3 slides and recording be available?**
Response: A pdf of the presentation and a recording of the meeting was uploaded to the project website the day after the meeting.
3. **Question: Is Clark Street a VDOT street or an Arlington County maintained street?**
Response: Clark Street is an Arlington County maintained street.
4. **Question: Will there be any road closures during construction, specifically Richmond Highway and Army Navy Drive? (x2)**
Response: Construction sequencing and maintenance of traffic are still being evaluated and will be communicated to the public prior to construction.
5. **Question: How can we find the Recommended Build to Line (RBL)?**
Response: The RBL can be found in the Crystal City Sector Plan. The recommendation for the width

from RBL to RBL on each side of Route 1 is 140 feet, per the Sector Plan for the at grade segment of Route 1.

6. Question: Are rumble strips being considered along with transverse pavement markings?

Response: Rumble strips may be considered as a measure to slow traffic along with the transverse pavement markings that were mentioned in the presentation.

7. Question: Will there be any lanes or roads closed as part of this project?

Response: There are currently no proposals for lanes or roads to be closed as part of the project. However, the project does propose to not allow left turns in any direction at the future at grade Route 1/18th Street S intersection (which is consistent with the current configuration that does not allow any turning movements).

8. Question: Has Amazon made a commitment to improving safety, accessibility, and the pedestrian experience crossing Route 1? There may be opportunities to create a public private partnership between the state/county and Amazon.

Response: Amazon, the Commonwealth of Virginia, and Arlington County have each committed to implementing multimodal infrastructure improvements as part of a Memorandum of Understanding that was signed as part of Amazon's decision to locate its second headquarters (HQ2) to Arlington County.

9. Question: I support off-peak on-street parking to help prevent speeding during off-peak hours when traffic is free-flowing and to help support retail in the area. Has VDOT considered this? (x2)

Response: Yes. VDOT has considered off-peak on-street parking and other measures to encourage drivers to travel the speed limit on Route 1. It should be noted the VDOT does not implement or maintain on street parking; Arlington County will need to be responsible for managing this parking. Final Phase 2 recommendations will be communicated during PIM No. 4 and in the Phase 2 report.

10. Comment: For streetscape, Route 1 should feature, from inside to outside, tree pits, protected bike lane, bike lane buffer, and wide sidewalks – still needs work. The design should adhere to safe urban boulevard standards – pleasing to look at. (x2)

Response: VDOT is actively working with Arlington County to establish the recommended streetscape design for the Route 1 corridor and will communicate the proposed design during PIM No. 4 and in the Phase 2 Report.

11. Question: What is the plan for S Clark Street between 20th and 23rd Streets? If Route 1 becomes an urban boulevard, how can we best use S Clark Street and the landscaping strip in between it and Route 1?

Response: Arlington County is proposing a cycle track for S Clark Street between 20th and 23rd Streets, as part of its Crystal City Bike Network, separate from VDOT's Route 1 project. A landscape strip and wide sidewalk would be incorporated into the pedestrian space between Route 1 and S Clark Street. South Clark Street itself will continue to evolve with the evolution of surrounding land uses; ultimately, per the Crystal City Sector Plan, S Clark Street will be realigned so that its

intersections with 20th and 23rd Streets will be further east of their present locations, which will result in a more efficient intersection on Route 1.

12. Question: Can you please describe the anticipated process for the removal of snow, ice, and debris from the sidewalks and bike lanes, as Route 1 will continue to be a VDOT maintained roadway?

Response: It is anticipated that VDOT will continue to maintain Route 1 travel lanes, curbs, gutters, and drainage inlets and pipes; and that Arlington County will be responsible for the maintenance of the sidewalks, landscaping, and other elements between the curbs and the building facades (or RBLs). As the project advances, VDOT and Arlington County will discuss and agree on maintenance responsibilities in the corridor.

13. Comment: There is routine congestion and speeding on Eads Street and instances of drivers running through the pedestrian crossing safety flashers at Eads and 13th Street. (x2)

Response: VDOT has communicated this concern to Arlington County.

14. Comment: Please minimize jargon during presentations to increase audience understanding.

Response: We are aware that some attendees aren't familiar with some of the urban planning and engineering terminology being referenced, and we have tried to define important terms to improve our communication with the public.

15. Comment: We need congestion pricing, affordable housing fixes, and expanded housing options!

Response: Comment noted. Addressing these desires is outside the scope of the Route 1 project.

16. Comment: We would like to see the conversion of 18th Street to a pedestrian only street on the weekends. Ideally, we would like 18th Street to always be limited to pedestrians/cyclists/emergency vehicles, but having it be limited during non-peak times is a great idea.

Response: The use of 18th Street on weekends and during non-peak times is ultimately the decision of Arlington County. During peak periods, the use of 18th Street by vehicles (including buses, emergency vehicles, taxi's, etc.) helps with overall circulation and congestion in the corridor and thus multimodal safety.

17. Comment: Thank you for incorporating streetscaping and a bicycle network into the project.

Response: The VDOT project team is striving to incorporate features desired by the community.

18. Comment: Consider pedestrian safety first.

Response: The VDOT project team aims to incorporate as many pedestrian safety features as possible within the corridor.

19. Comment: The plan, timeline, and funding stream seem tenuous at best.

Response: VDOT is committed to implementing multimodal transportation improvements in the Route 1 corridor, as agreed to with Amazon and Arlington County.

TRAVEL DEMAND MODELING

20. Question: Is the goal of your Travel Demand Management (TDM) strategy to reduce traffic volumes? When will the TDM plan be presented? (x2)

Response: Consistent with Arlington County policies, the goal of our TDM strategy will be to reduce vehicular traffic volumes and encourage more multimodal travel consistent with the vision of the urban boulevard. A TDM plan will be presented at the next public meeting and documented in the Phase 2 draft report.

21. Question: Does your TDM model allow for feedback from congestion that leads to people shifting to transit and biking or shifting time of day of travel?

Response: Yes, the model includes various travel modes and several built-in levels of feedback. For example, travel time along Route 1 will impact the desire of people to drive during the peak period or make a trip from Point A to Point B. As Route 1 becomes more congested, many trips will not divert to another route; instead, people will choose another transportation mode or not take the trip during the peak period.

22. Question: Has your TDM model considered the shift in culture and how the incoming HQ2 employees will use transportation?

Response: Yes, this study is building off of the multimodal policies and agreements between HQ2 and Arlington County as part of development approvals. These policies and agreements are critical to the TDM strategies and a plan for reducing future traffic volumes.

23. Question: Given that traffic apps routinely divert traffic to the George Washington Memorial Parkway for passage through Arlington and Alexandria due to the speed reduction in Alexandria, why are you confident in the anticipated volume reduction along Route 1 from these changes?

Response: What we've seen in between the 2019 and the 2022 multimodal transportation count data is that traffic volumes have been reduced from 2019 due to changes in travel patterns and changes in work styles that have occurred since the start of the COVID-19 Pandemic. We are comfortable with the 2022 data that was collected, and with the lower starting point, we now need to focus on a TDM strategy to reduce future year traffic volumes to 2022 levels.

24. Question: With the significant number of Amazon employees projected, what are the TDM site plan requirements for these new employment centers and how does that translate into what percent of their employment base is expected to drive?

Response: Arlington County established the site development requirements for the HQ2 program, which includes TDM measures such as one parking space for six employees. Other requirements can be obtained from a review of the site plan approvals.

25. Comment: There are concerns that VDOT is abandoning the TDM strategy based on the review of more recent traffic data and the changes in the design which are perceived to favor

accommodating vehicle volumes over bikes and pedestrians. Is VDOT committed to continuing forward with a TDM program? (x3)

Response: Yes. VDOT is committed to implementing TDM solutions and has taken the most recently collected traffic data into account for developing TDM strategies, as well as designing safety measures for bicycles and pedestrians.

BIKE LANES

26. Question: What would be the width of the bike lanes along Route 1 and the width of the protective barrier?

Response: We are continuing to coordinate with Arlington County on the proposed streetscape elements shown at PIM No. 2, which included as one option 5-foot-wide bike lanes and a 4-foot physical buffer.

27. Question: Does VDOT support following NACTO guidelines for low stress bicycle routes, as called for by the Bicycle Element of Arlington's Master Transportation Plan? Assuming so, why is VDOT showing non-protected bicycle facilities on routes that have high vehicle volumes?

Response: VDOT is continuing to coordinate with Arlington County on bicycle facilities along and across Route 1, including the use of NACTO guidelines.

28. Question: How will the proposed bike lanes on Route 1 be integrated into the bike plans for Crystal City and Eads Street?

Response: VDOT is continuing to work through the interface between potential bicycle facilities along and across Route 1 with the County's Crystal City Bike Network. Additional information will be provided at PIM No. 4.

29. Comment: Bike lanes are frequently blocked on 18th Street.

Response: The VDOT project team will examine bike facilities and how blocking of them by buses or delivery trucks can be mitigated or prevented. Protected bike lanes would be one solution.

TRAFFIC DIVERTING TO LOCAL STREETS

30. Question: There are several scenarios that seem likely to result in traffic being diverted through local neighborhoods, such as cars exiting off Route 1 to avoid traffic. What will be done to ensure that cut-through traffic doesn't spill over to local streets, making them unsafe for pedestrians and local residents? (x3)

Response: VDOT anticipates that implementing a TDM strategy will help manage traffic volumes and reduce the likelihood of people diverting to residential streets.

31. Question: It is confusing that the forecasted volumes on the local streets changed so drastically and favorably, are there plans for a deeper analysis to ensure this is correct? (x2)

Response: These updated results were based on an in-depth analysis, which considered additional information and updated parameters such as 2022 traffic data and updated Arlington County land uses and recent plans such as the Pentagon City Sector Plan.

TRANSPORTATION ANALYSIS

- 32. Question:** Is there a federal regulation that binds us to 6-7 lanes on Route 1? Using K Street as an example, why not use 3 lanes in the middle as an arterial and use the outer two as a lower-speed frontage road. That would keep the crossing distance short, move the landscaping from the median closer to the sidewalk where it is easier to maintain, and make a quieter environment for pedestrians.

Response: The use of 6-7 lanes on Route 1 is intended to strike a balance between shorter pedestrian crossing distances and the need to provide minimum vehicle capacity. Frontage roads would likely result in more right-of-way being required and are not anticipated to provide added benefits to pedestrians, bicyclists, and transit users. Frontage roads would create complexities with intersections at 15th, 18th, 20th, and 23rd Streets and would also be inconsistent with the Crystal City Sector Plan.

- 33. Comment:** Can a four-lane typical section on Route 1 be considered to provide additional right-of-way for bike and pedestrian facilities and to encourage lower speeds? It appears the public survey results show that pedestrian safety is the highest priority among respondents. (x5)

Response: VDOT has selected the proposed typical section of three through lanes in each direction for Route 1 with single left turn lanes at the intersections with 15th, 20th, and 23rd Street as the configuration that strikes a balance in meeting the needs of all modes. The multimodal transportation analyses have shown that two lanes in each direction would result in severe congestion and backups along both Route 1 and the surrounding street network, even with the traffic volumes collected in 2022.

- 34. Comment:** Rather than spending to moving Route 1 to at-grade, I would prefer to use resources to make the exits for I-395 south safer from the George Washington Memorial Parkway to Glebe Road where there are many accidents there. (x4)

Response: This project is focused on converting Route 1 to an urban boulevard, which will result in many benefits for the Crystal City community. As this Route 1 study has evolved, VDOT is examining modifications to the Route 1/I-395 interchange that will contribute to improving safety in the I-395 corridor.

- 35. Comment:** Is it really statistically relevant to use pandemic data as the basis for traffic patterns going forward? The removal of the pedestrian tunnel at 23rd Street has already made that intersection much more dangerous. Removing the grade crossings at 15th and 18th Streets will make them more dangerous as well. (x3)

Response: The most recent traffic volumes that have been collected and are being used in the analysis were collected in April 2022 following a consistent "leveling off" of traffic volumes was observed for a period of multiple months beginning in the fall of 2021. Therefore, this data represents traffic patterns returning to a consistent pattern over an extended period of time—patterns which have changed from pre-Pandemic travel conditions.

- 36. Comment: The analysis is also not considering changes in traffic patterns due to the emergence of Automated Vehicles. As they proliferate, it will get people out of buses and transit and into their own AVs, which will increase the volumes.**

Responses: While theories exist that automated vehicles will result in streets having additional capacity due to shorter vehicle headways, there are still multiple unknowns surrounding automated vehicles and how they may affect travel patterns. There is not yet consistent guidance from the U.S. DOT and other transportation agencies and associations to include in this Route 1 study.

- 37. Comment: The traffic counts used for the analyses are way too low, and present and much rosier view than what will occur (in terms of both delay and crashes). They need to reflect all the growth taking place in Pentagon and Crystal City (both jobs and housing).**

Response: The vehicular volumes being used in this analysis are based on data collected in April 2022 that VDOT has verified to be consistent with recent travel patterns and has been established as the new baseline following the travel pattern changes which occurred post pandemic. New documents such as the Pentagon City Sector Plan address growth in not only jobs and housing but also in travel choices and policies that will encourage people to not drive their single-occupant vehicle.

- 38. Question: Have you done equally comprehensive analysis on change in travel times for people who are traveling by other means than automobiles, especially in regard to the crossings at 15th and 18th Streets?**

Response: The Route 1 multimodal transportation analyses consider travel times for all modes. The crossings of Route 1 at 15th and 18th Streets will be designed to maximize bicycle and pedestrian safety and comfort, while not significantly impacting crossing times. At 18th Street, where there is currently no delay for pedestrians to cross Route 1, pedestrians would be delayed by approximately 1 minute of crossing Route 1, but the proposed concept would also allow pedestrians to connect to new pedestrian facilities along Route 1

- 39. Comment: I don't believe that a reduction in traffic volume, even just a natural one, justifies downgrading an existing road.**

Response: VDOT appreciates this comment; however, the intent with removing the elevated freeway portion of Route 1 in Crystal City is to create a transportation facility that complements the vibrant, urban nature of Crystal City, with at grade intersections that allow pedestrian, bicycle, and transit access along the roadway, and with the ability for commercial and residential buildings to have their front doors on Route 1 to create a more lively street.

LOWERING SPEED LIMIT TO 25 MPH

- 40. Question: Have you considered reducing the speed along Route 110 north of I-395? (x3)**

Response: VDOT is considering lowering the speed limit for the segment of Route 110 just north of I-395 from 45 mph to 35 mph as an appropriate way to slow southbound traffic to 25 mph within Crystal City.

- 41. Question: Are you confident in the ability to achieve speed reduction on Route 1? There are concerns that simply posting a revised speed limit sign without infrastructure changes will not be effective. (x3)**

Response: Yes. VDOT is proposing to implement as many tools as possible to reduce speeds, including putting curves in the road to physically reduce speeds.

- 42. Question: Does the speed analysis presented consider the fact that there wasn't a 35-mph speed sign north of about 18th Street until fairly recently?**

Response: VDOT believes that the 35-mph sign in question was installed prior to the data collection effort in April 2022.

- 43. Question: Where do you expect the speed will begin to drop down to 25 mph between I-395 and US 1?**

Response: We anticipate that with changes to the I-395 interchange and the addition of new traffic signals, the 25-mph speed limit can begin south of I-395.

- 44. Question: Will the stretch of US 1 between 23rd St and the Alexandria border be 25 mph?**

Response: Potentially, but at this time our study is focused on Route 1 north of 23rd Street. Further coordination with Arlington County would be needed to change the speed limit to the south.

- 45. Comment: Reducing speeds also increases road capacity, so if we can simplify some intersections that could help us reduce the number of travel lanes. For example, perhaps we could remove the 20th and Route 1 intersection.**

Response: That is not something we're looking at right now as we are trying to maintain as much of the street grid as we possibly can. The street grid is to remain as it stands today, including the 20th Street intersection, per the Arlington County sector plan.

- 46. Comment: Designing for 25 mph must include narrow lanes (10' interior lanes), as research indicates that lane width and speed are directly correlated - as widths rise, so do average speeds. (x3)**

Response: VDOT will move forward with lane widths reduced to a minimum of 11 feet. Given the function of the street as a regional roadway and a National Highway System (NHS) route and given the presence of wider vehicles such as tractor trailers and buses that will have the option of using any of the three northbound or southbound through lanes on Route 1, 11 feet is the minimum lane width VDOT will allow for this segment of Route 1. In addition, with the introduction of sharper curves, 11 feet is a minimum for the large vehicles to not create an unsafe situation by "off tracking" into adjacent lanes.

- 47. Comment: The speed reduction will cause more traffic.**

Response: The intent for reducing the speed limit will be to allow traffic to progress at slower speeds but still progress, while creating a safer environment for pedestrians and bicyclists.

- 48. Comment: A speed limit reduction may not fix pedestrian safety because of issues with compliance, too many lanes to cross, width of lanes, and complexity of the intersections. (x3)**
Response: Research has proven that pedestrian crossings are much safer when speed limits are 25 mph or less. Please refer to Arlington County's Vision Zero Action Plan. VDOT's proposed design will incorporate vision zero principles.
- 49. Comment: There is a lack of regular police enforcement of the current speed limits; doubt this new speed limit will be enforced. There are opportunities for automated enforcement through speed cameras, inroad lighting, and other such technologies. (x9)**
Response: The legislation is not yet in place in Virginia that will allow VDOT to use speed cameras on Route 1. The design intent for the Route 1 urban boulevard is that elements of the design—sharper curves, narrower lanes, street trees, and signage—all contribute to encouraging drivers to drive the speed limit. In addition, VDOT will examine locations where enforcement can logically take place.
- 50. Comment: 25 mph is way too low for a major route like US-1, especially given the design of the road. (x4)**
Response: There are many examples of major routes in urban areas with speed limits of 25 mph. The current design of the road will change; the proposed design for the Route 1 urban boulevard will include elements—sharper curves, narrower lanes, street trees, and signage—that all contribute to encouraging drivers to drive the speed limit.
- 51. Comments: Speed limits of 25-mph, leading pedestrian intervals, no right on red (with enforcement) are all positive aspects of this project. (x4)**
Response: Thank you for this comment.

INTERSECTION CONCEPTS THAT WERE PRESENTED

- 52. Question: The Phase 1 study projected a lot of red congestion along Eads, 18th, and 15th streets for the at-grade option, but now the study is showing only yellow along the north-south streets. How would traffic be impacted on 15th and 18th streets with the at-grade option? And why is this shown as "green" in your presentation? I don't understand how adding a stoplight to 18th wouldn't impact traffic along that street at least.**
Response: Given the updated traffic data from counts collected in 2022, we have a lower starting point in terms of traffic volumes; during the PM peak, we don't have as much congestion as compared to what we were seeing with the volumes in 2019. We have lower volumes to begin with.
- 53. Question: Can the four lanes of 18th Street be cut to two or three to better accommodate pedestrians and bicyclists? (x4)**
Response: The study team will explore the possibility of three lanes on 18th Street S. However, given the short spacing between traffic signals along 18th Street S and given the desire to reduce vehicle and pedestrian delays on Route 1 for 18th Street, it is likely that two lanes in each direction are needed along 18th at Route 1, especially considering buses and emergency vehicles that also use this street. Note that there is a fire station two blocks to the west along 18th Street. The study team is

continuing to evaluate options at this location.

- 54. Question:** Pedestrian safety needs to be prioritized, and crossings at grade are perceived by the public to be dangerous. Do you interpret a lack of consensus for a single separated crossing, such as bridge or tunnel, to mean that an at-grade crossing is preferable? 18th Street is a major pedestrian crossing, with many different types of pedestrians. Recommend VDOT redesign a new underpass so that pedestrians can safely cross and connect directly to Metro and the Underground. (x10)

Response: VDOT appreciates these comments supporting an underpass. We also received numerous comments supporting the at-grade option, in addition to numerous comments supporting pedestrian and bike safety enhancements such as leading pedestrian intervals (LPis) and no right turn on red. The all-pedestrian phase (e.g., a Barnes Dance) has also emerged as a popular alternative. In addition, VDOT's design will address the possibility of more directly accessing the existing pedestrian tunnel under Route 1, just north of 18th Street, which will require coordination with the landowner and Arlington County.

- 55. Question:** Will you consider adding hardened protection on median barriers for pedestrians who can't cross in one cycle?

Response: The project team is currently evaluating various protected intersection configurations, based on suggestions from the public and Arlington County.

- 56. Question:** Has the possibility of a pedestrian or bicycle bridge been abandoned? (x2)

Response: The all-pedestrian phase has emerged as a preferred alternative at 18th Street; a strong preference has not emerged for one of the separated facilities offered.

- 57. Question:** What other safety features can you add to the intersections such as raised crosswalks, separate bike and pedestrian lights, a roundabout, two-stage pedestrian crossings, or better lighting at the intersection? (x5)

Response: There are right-of-way impacts that would preclude the roundabout option. We will continue to evaluate the feasibility and design of protected intersections. Regarding the "behind the curb" options, protected bike lanes would use some of the space dedicated to wide sidewalks, including at the intersections, but would still leave us with a good deal of space for pedestrians. At intersections, bikes and pedestrian would intermingle and share space. Safety is still the highest priority, and things like additional lighting would be a part of the solutions. Two-stage pedestrian crossings and other design elements are being explored in coordination with Arlington County.

- 58. Question:** Do you know of any examples of successful "urban boulevard" intersections anywhere in the world that are as large as the 15th Street and Route 1 intersection?

Response: Yes. In Washington D.C., there are six-lane urban boulevards on Constitution Avenue, Connecticut Avenue, and Pennsylvania Avenue. Route 1 in Alexandria and in Washington DC is also analogous to Route 1 in Crystal City.

- 59. Question:** Are pedestrians and bicyclists safer crossing Route 1 at 15th Street with the current grade-separation, or with the at-grade crossing you're proposing? I worry about the amount of

time required to cross the intersection and high likelihood of having to take refuge in the median. (x2)

Response: Pedestrians and cyclists currently cross multiple ramps at 15th Street with few right turn on red restrictions for vehicles. The existing southbound right turn lane at 15th Street is particularly problematic for pedestrian safety. The at-grade concept represents only one intersection to cross, and the team is developing concepts with multiple safety features, such as right-turn on red restrictions, protected intersections, etc. that would improve safety at this crossing over the existing condition.

60. Question: Wouldn't the double turn lanes at the 15th Street intersection cut off visibility for drivers as they cross pedestrian facilities? (x2)

Response: Pedestrians would be given a don't walk sign at the same time as the dual left turns for vehicles are allowed with a green arrow.

61. Question: I would imagine the cycle lengths at the intersection of Route 1 and 15th Street and perhaps along the corridor are quite long to accommodate the Barnes Dance interval. These long signals can impact pedestrian safety due to the long wait periods even though the at-grade approach may be the most economical. (x4)

Response: The intersections on the corridor will require longer cycle lengths to accommodate the pedestrian and vehicular movements. Current cycle lengths on the corridor are 140 seconds and 150 seconds during the AM and PM peak hours, respectively, and we are studying cycle lengths to remain within that general range. Signal timing along to corridor will continue to be constrained by the 23rd Street S. and Route 1 multi-phase signal, until the S. Clark Street intersection moves to the east in the future (per the Sector Plan). Signal timings will be developed and analyzed with the assumption that enough time is given for pedestrians to safely cross the street completely, rather than a two-stage crossing requiring a median refuge.

62. Question: How many seconds would be given to pedestrians (LPIs) for a potential Barnes Dance at 18th Street? Would bikes be legally permitted to cross during the LPIs as well? (x3)

Response: The County typically uses 3-5 seconds, and we have assumed 5 seconds for the LPI in our analysis. We are still coordinating with Arlington County on their preferences for bike treatments at intersections. Bikes are supposed to proceed with vehicles, but practically speaking, in the D.C. area, many bicyclists proceed with the LPI.

63. Question: What needs to be done to improve safety and traffic flow at 23rd Street and Route 1? Reconfiguring the US Route 1 and 23rd Street intersection is needed and logical.

Response: VDOT is coordinating with Arlington County to tie in the southern terminus of this project to the on-going developments around the Route 1/23rd Street intersection and the County's proposed design of 23rd Street to the east of Route 1. Ultimately, as land uses evolve, the intersection with S. Clark Street will move further east along 23rd Street, which will simplify the Route 1/23rd Street intersection, improving safety and making movements by all modes more efficient.

- 64. Comment: Limiting choices for motorists at every intersection is the best way to keep cyclists and pedestrians safe, while moving volume. Allow fewer turn options. The best thing would be to just leave the road elevated at 18th. (x2)**

Response: VDOT is proposing to not allow any left-turns within the Route 1/18th Street intersection and to not allow right-turns on red for any of the approaches.

- 65. Comment: Disappointed that this project doesn't include 12th Street as an at-grade option, and also disappointed that transit buses have priority over uniting the neighborhood. (x3)**

Response: Arlington County has emphasized to VDOT that a grade-separate 12th Street is essential to the County's current and future transit operations.

- 66. Question: Will the sidewalks on Route 1 around 12th Street be at-grade or at-bridge level? (x2)**

Response: The sidewalks would gradually separate from Route 1 approximately halfway between 15th Street and 12th Street. Sidewalks would be at-grade; on the west side of Route 1, the sidewalk would connect with the sidewalk along 12th Street; on the east side of Route 1, the sidewalk would connect to a planned Arlington cycle track along S. Clark Street.

- 67. Comment: I am strongly opposed to any kind of pedestrian-only phase at any of the signals as this will significantly and unnecessarily increase travel times for motorists. (x2)**

Response: The VDOT project team will continue to evaluate the ped-only phase and its potential benefits and concerns, coordinating closely with Arlington County.

- 68. Comment: The pedestrian underpass at 23rd was closed due to nonuse.**

Response: Thank you for this comment.

- 69. Comment: Barnes Dance signalization for the intersection of Route 1 and 18th Street will give pedestrians sufficient time to cross 18th Street & Route 1 without conflict with drivers.**

Response: Thank you for this comment.

- 70. Comment: We strongly support including the Dutch underpass for numerous safety reasons.**

Response: Thank you for this comment.

- 71. Comment: Route 1 over 18th Street should stay elevated so that traffic keeps moving safely above and below, and cars can engage with the road a block away. (x2)**

Response: Thank you for this comment. It is project team's recommendation to lower Route 1 to create an urban boulevard, providing multimodal access across and along Route 1, and providing a street in the context of the planned developments within Crystal City and Pentagon City.

PROPOSED I-395 AND ROUTE 1 INTERCHANGE CONFIGURATION

- 72. Question: This interchange redesign seems safer for those on I-395 and the ability to slow traffic before they get into the Crystal City area is a real plus. Does this mean coming in at grade at Army Navy and Long Bridge Drive? (x2)**

Response: The general ramp configuration for access to Army Navy Drive is proposed to remain as is, but the interchange reconfiguration would mean that traffic from I-395/Route 1 could access Army Navy Drive more directly. For access to Long Bridge Drive, Route 1 is still proposed to be grade separated over the proposed 10th Street/Army Navy Drive connection and over 12th Street.

73. Question: On the north end, where does the urban boulevard end and the highway-only begin? (x2)

Response: The urban boulevard design would transition along Route 1 between the proposed 10th Street overpass and the interchange with I-395. Urban boulevard design elements (curves in the roadway, 11-ft lanes, landscaping, etc.) would be included in this transition area; sidewalks would be configured as discussed in the response to Question 65 above.

74. Question: Would the I-395/Route 110 interchange also free up land near Long Bridge Drive?

Response: Yes, the I-395 interchange area would be condensed, potentially freeing up land along Long Bridge Drive that is currently within VDOT right-of-way.

75. Question: Will the current ramp off I-395 to 15th be gone? Will drivers exit I-395 onto Route 1 (further north), then turn onto 15th Street as needed? Does this open up land/space on the Route 1 side for the Americana site?

Response: The proposed design would remove the 15th Street ramps and provide access to 15th Street via a signalized intersection (with a shared through/right-turn lane). Route 1 is currently proposed to be shifted to the west (with its western RBL as the eastern property line of the Americana Hotel), resulting in the potential for excess public right-of-way to the east of Route 1.

76. Question: Will there be enough queuing space for the proposed off ramps from I-395 to US 1?

Response: We have analyzed this concept with the traffic volumes collected in 2022 as well as the pre-pandemic volumes in 2019, and so far, our traffic analysis results suggest that the off-ramp queues could be accommodated. However, further study is needed to confirm that traffic will not back up onto I-395.

77. Question: Will traffic from the stoplights on the I-395 south exit ramps back up onto the interstate and the bridge?

Response: We still need to analyze future conditions along I-395, but with the traffic volumes collected in 2022, as well as pre-pandemic traffic volumes from 2019, these volumes are anticipated to be accommodated within the off-ramps. However, further study is needed to confirm that traffic will not back up onto I-395.

78. Question: Is there any explanation as to why there is a southbound afternoon rush with congestion but no morning rush and congestion in the northbound direction?

Response: The data suggests that the nature of travel in the AM peak period has evolved. While the 2019 data and pre-pandemic trends showed more of a peak hour of AM congestion, the 2022 data reveals that the AM peak has spread, with no significant peak hour congestion along Route 1.

- 79. Question:** I fully support the Army/Naval and Long Bridge/10th Street connector. How will changes at 10th Street affect the upcoming “landing” of the bike and pedestrian bridge that will be built as part of the Long Bridge project? (x2)

Response: The proposed changes at 10th Street S would interface with Arlington County’s planned cycle track along Long Bridge Drive. As for a connection to the landing of the future Long Bridge bike/ped facility (near the Long Bridge Aquatic Center), Long Bridge Drive and 10th Street to the Long Bridge Park Esplanade should be able to serve as connections.

- 80. Question:** How are the estimates for traffic and roadway flows on the remainder of the project affected by the potential changes to the proposed I-395 off ramp configuration and the connection of 10th Street to Route 1?

Response: The study team has incorporated the proposed interchange reconfiguration into the multimodal transportation analyses and is in the process of evaluating the effects this change would have on the Route 1 corridor. Initial results indicate that the proposed off-ramp configuration will allow for adequate traffic progression while enabling the design of an urban boulevard much further north than the concept shown in Phase 1 of the study.

- 81. Comment:** Route 1 needs its own bridge across the Potomac River. It shouldn’t share it with I-395.

Response: A new bridge for Route 1 across the Potomac River is outside the scope of this study.

- 82. Comment:** Redesigning the I-395 and Route 1 interchange is a bad decision because it would result in the free-flow on Route 110 being broken due to the new signal at the new Route 1 south ramp. A free-flow route between I-66 and I-395 will somehow need to be ensured. (x4)

Response: The proposed reconfiguration of the I-395/Route 110/Route 1 interchange will enhance multimodal transportation safety along Route 1 in Crystal City. For southbound traffic, the configuration introduces one signal for access to I-395 northbound, which will serve to slow traffic as it enters Crystal City. The proposed reconfiguration includes a non-signalized direct ramp from southbound I-395 to northbound Route 110, which is the current configuration.

- 83. Comment:** The proposed interchange modifications are not important if not keeping current underpasses.

Response: The proposed reconfiguration of the I-395/Route 110/Route 1 interchange will enhance multimodal transportation safety along Route 1 in Crystal City

- 84. Comment:** Reconfiguring the connections to I-395, Route 1, Route 110, and 10th Street are positive for drivers, bicyclists, and pedestrians. Slowing drivers can make local community travel safer.

Response: Thank you for this comment.

- 85. Comment:** Happy that VDOT is addressing the very dangerous situation at the new I-395 and Route 1 exit ramps and traffic signals (left lane exit). (x2)

Response: Thank you for this comment.

- 86. Comment:** I am supportive of the removal of the flyover ramp at the north end of the project. However, the intersections should be reworked to feature standard urban intersection geometry and eliminate the “ramp spaghetti” at the southwest corner of I-395 and Route 1 interchange.
Response: The project team will continue to evaluate ramp configurations for the southwest quadrant of the interchange.

PROPOSED 18th STREET BUS BAY RELOCATIONS

- 87. Question:** Where will pick-up and drop-off vehicles (Uber, etc.) go on 18th? (x2)
Response: The study team is currently coordinating with Arlington County and various transit providers on where various drop-off/bus staging areas would be relocated in the context of the County’s multimodal project and ongoing redevelopment.
- 88. Comment:** Would like to learn more about how the proposed new bus stops (shuttles and Metrobus) at 18th will actually work.
Response: The existing bus bays are proposed to be relocated to S Bell Street, north of the Metro station and existing bus bays. This relocation would require minor changes in the bus routes that use the current bus bays. In the proposed concept, buses would travel east on 15th Street across Route 1, make a right turn on S Bell Street, stop north of the Metro Station, and then rejoin their original routes on 18th Street by making a left at the Crystal City Metro Station.
- 89. Comment:** The 18th Street bus bay relocations are not important if the current underpasses aren’t being kept.
Response: The bus bays are proposed to be relocated since the removal of the grade separation of Route 1 over 18th Street would prevent them from staying at their current location.
- 90. Comment:** Any bus depot near pedestrians should have exhaust hookups so the pedestrians don’t have to inhale the fumes.
Response: Thank you for this comment.
- 91. Comment:** Replacing the 18th Street bus bays is a lousy idea, they are now in a good location and passengers are protected from the elements.
Response: Thank you for this comment.