

Crystal City Bike Network Update

Spring 2022

SUMMARY:

In March 2020 the County Board directed the County Manager and Transportation staff in the Department of Environmental Services (DES) to develop a plan to enhance bicycling facilities in Crystal City that can be implemented by December 31, 2024. In Winter 2020 DES-Transportation staff began to develop the Crystal City Bike Network (CCBN) improvement plan with consideration for:

- Trade-offs in the right-of-way to provide enhanced cycling facilities while maintaining and enhancing facilities for pedestrians and transit users.
- Preservation of and possible enhancements to the Crystal City-Potomac Yard Transitway.
- Alignment with existing transportation plans for the area including the Crystal City Sector Plan (2010) and Master Transportation Plan Bike Element (2019). More information on existing plans can be found [here](#).
- Coordination with ongoing development.

DES-DOT worked to develop a low stress, connected bicycle network and through this process identified four alternative bicycle network configurations. One alternative met the considerations listed above and was presented as the recommended alternative. It includes a southbound protected bike lane on Crystal Drive and a two-way cycle track as well as a northbound, contraflow protected bike lane on Clark/Bell Street. This proposed bicycle network forms a protected one-way pair of north/south bicycle facilities. DES-DOT staff have been working on options to connect these paired bicycle facilities with improved bicycle access on the east/west cross streets.

The alternatives were discussed at the first community meeting in Winter/Spring 2021 and included the recommended alternative. The project team reviewed public input from this meeting and developed an interim engagement in Spring 2021, where it was determined the bike network would be extended further south in Crystal City to include a northbound two-way cycle track. The second community meeting took place in Summer 2021 and informed the final bike network configuration.

The bike network improvements will be delivered through three methods: the Arlington County Capital Improvement Plan, Arlington County's Transportation Engineering & Operations (TE&O) Restriping Program in coordination with Water, Sewer, and Streets Repaving Program, and through private site plan projects. DES-DOT Staff have developed an implementation document which accompanies this document. The implementation document outlines the timeline and delivery method for each segment of the bike network.

BACKGROUND:

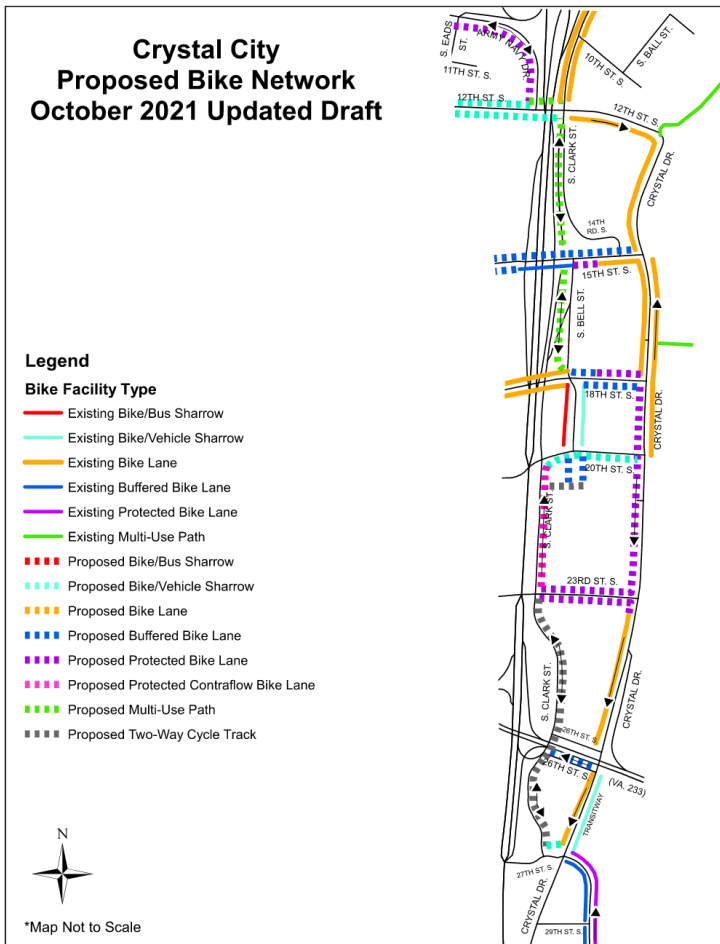
In 2016 and 2019, community groups, County advisory committees, and residents drew attention to the need for improved bicycle facilities in Crystal City. Bike lane blocking is a common issue in Crystal City. Popular retail establishments and unprotected bike lanes often lead to private vehicles and ride-hailing vehicles blocking bike lanes. Through OurStreets, a crowd-sourcing data application, it was found that nearly 90% of the Crystal Drive bike lane was blocked during morning and evening rush hours and lunch time. The announcement of Amazon HQ2 in 2018 further mobilized Arlington County to create a comprehensive bicycling network in Crystal City and adjacent Pentagon City.

The County Board acknowledged resident and committee feedback. At the March 2020 County Board meeting for [Site Plan #421 item](#) the County Board directed the County Manager and DES-DOT to investigate options for enhancing the bicycle network in Crystal City by 2024. The Crystal City Bike Network would aim to deliver a network of enhanced bicycling facilities, including protected or buffered bike lanes, east of Richmond Highway from the Alexandria border extending north to Long Bridge Park.

In Winter 2020, DES-DOT Staff reviewed and evaluated traffic conditions, roadway geometry, planned capital improvements and site development projects in the area. As part of that assessment, DES-DOT Staff considered multiple options for reconfiguring streets in the study area. Four roadway configurations were presented to the County Manager and to the public including:

1. Northbound and southbound bike lanes on Crystal Drive (similar to existing conditions)
2. Two-way cycle track on the east side of Crystal Drive
3. Two-way cycle track on the west side of Crystal Drive
4. Southbound protected bike lane on Crystal Drive and a northbound, contraflow protected bike lane on Clark/Bell Street

Alternative 1 was determined to be inadequate to address the issues – bike lane blocking and improving user safety that was present on the existing roadway. Alternative 2 was determined to be infeasible in the four-year project timeline due to impacts to the implementation of the transitway extension on Crystal Drive and need for more substantial capital improvements required to make this alternative viable. Alternative 3 was determined to be infeasible in the four-year project timeline due to impacts to the commercial streetscape on Crystal Drive and the need for more substantial capital improvements required to make this alternative viable. After collecting public input and providing a memo to the County Manager, DES-DOT Staff moved forward with Alternative 4.



DISCUSSION:

Crystal Drive will primarily serve users traveling south while S. Clark Street will primarily serve users traveling north. East/west connections will help to connect the parallel north/south bicycle facilities (see illustration below) Bike network facilities will be delivered through three methods: the Arlington County Capital Improvement Plan, Arlington County's Transportation Engineering & Operations (TE&O) Restriping Program in coordination with Water, Sewer, and Streets Repaving Program, and through the 4.1 process for adjacent site development.

The following sections of the Crystal City Bike Network will be implemented by Arlington County's Transportation Engineering and Operations Bureau with support from Transportation Planning:

- **S. Clark Street, 20th – 27th** includes a proposed protected contraflow bike lane on S. Clark Street from 20th Street S. to 23rd Street S. and proposed protected cycle track from 23rd Street S. to 27th Street S will form a northern route for users.
 - Some improvements from 20th Street S. to 23rd Street S. will be delivered by the 2001 S. Clark Street Project.
- **Crystal Drive 18th – 26th** includes a proposed protected southbound bike lane on the west side of Crystal Drive from 18th Street S. to 23rd Street S., connecting to the existing southbound bike lane from 23rd Street S. to 26th Street S. to form a southern route for users.
 - The northbound standard bike lane will be maintained from 20th Street S. to 15th Street S. to preserve access to the Crystal City Connector trail to the Mt. Vernon Trail.
- **26th Street S., S. Clark Street – Crystal Drive** includes a proposed buffered bike lane that will connect users traveling west to access S. Clark Street.

The project team has been monitoring site development projects in Crystal City and incorporated bicycle facility improvements into site development projects within the Crystal City Bike Network project. DES-DOT Staff have also been coordinating bicycle facility improvements with planned transportation capital improvement projects in Crystal City including:

- 15th Street S. includes a proposed partially buffered and protected eastbound bike lane and a separate westbound bike lane to be completed through a DES Capital Project, [15th Street S. - S. Clark/Bell Realignment](#).
- S. Bell Street, 12th – 18th includes a proposed multi-use trail to be completed through a DES Capital Project, [15th Street S. - S. Clark/Bell Realignment](#).
- 18th Street S. includes a proposed buffered eastbound bike lane and a partially protected westbound bike lane to be completed through two adjacent development projects, [Crystal Square/Central District Retail Phase II](#) and through the link to 1900 block development for southside as well as County-led projects.
- 20th Street S. includes proposed shared lane markings both eastbound and westbound to be completed through two adjacent development projects [1900 Crystal Drive](#) and [2001 S. Clark Street](#).
- 23rd Street S. includes proposed protected bike lanes both eastbound and westbound to be completed alongside an adjacent development project, [2250 Crystal Drive/223 23rd Street S.](#) and a DES Capital Project, [23rd Street South Realignment \(Phase 2\)](#).

The project team will continue to coordinate planned capital improvement projects and site development projects in alignment with the accompanying implementation plan attached to this memorandum.

PUBLIC ENGAGEMENT:

Level of Engagement:

Communicate and Consult

The County Board directed the County Manager's Office and DES-DOT to develop a plan to enhance bicycle facilities in Crystal City to be brought forth for public input. The Crystal City Bike Network has been the subject of consistent and thoughtful outreach and communication by the County.

Outreach methods

- The first virtual meeting took place February 24, 2021. This virtual meeting was held to provide an opportunity for community members to learn more about the recommended network, the alternatives considered, and to ask questions.
- [The Crystal City Bike Network Project Page](#) was launched after the first virtual meeting and circulated widely to serve as a central point of information for the public. The website included an online feedback form from February 24 to March 21, 2021, for people to share their thoughts on the recommended network. After feedback was collected, [a community feedback summary](#) was uploaded to the project website.
- Public input from the first virtual meeting and online feedback form led to an interim engagement in Spring 2021. An online feedback form was available for people to share their

thoughts on two potential concepts for the segment of the recommended network on South Clark Street from 23rd Street South to 27th Street South. This feedback opportunity closed on June 4, 2021. This feedback was incorporated with the public input received during the first round of public engagement to inform an updated recommended network to be presented at the second community meeting.

- The second virtual meeting took place June 14, 2021. This virtual community meeting provided an opportunity for community members to learn more about the feedback we received, how it impacted updates to the recommended network, and to ask questions.
- From June 16 to July 9, 2021, an online feedback form was available for people to share their thoughts on the updated recommended network. After feedback was collected, a public feedback summary was uploaded to the project website.
- Additional stakeholder meetings took place to meet with County committees and external groups to determine trade-offs in the right-of-way and to build consensus on the final recommendations for the Crystal City Bike Network. Examples of these meetings include:
 - Bicycle Advisory Committee (BAC)
 - November 2, 2020 - Project staff updated the BAC on the upcoming Crystal City Bike Network project at the November BAC virtual meeting
 - February 1, 2021 - Project staff attended and presented at the February BAC virtual meeting
 - Pedestrian Advisory Committee (PAC)
 - March 10, 2021 - Project staff attended a question-and-answer session at the March PAC virtual meeting
 - People Before Cars Coalition
 - September 13, 2021 - Project staff met with JBG Smith and the People Before Cars Coalition, a partnership between the National Landing Business Improvement District and Sustainable Mobility for Arlington County, Arlington Families for Safe Streets, and Washington Area Bicyclist Association.

Community Feedback

The community is supportive of some elements of the Crystal City Bike Network. DES-DOT Staff have worked to improve the planned bicycle network by incorporating community feedback and preferences. Throughout engagement with the community overall preferences have been identified, including preferences for:

- Maintaining existing bicycle facilities and constructing two-way bicycle facilities on Crystal Drive.
- Adding physical protection to bicycle lanes.
- Incorporating roadway reconfiguration on S. Clark Street.
- Requiring a 24/7 dedicated bus facility.
- Including enhanced bicycle facilities on 12th Street S to connect to Long Bridge Park.
- Improving overall bicycle network connectivity.

- Developing a long-term plan for the Crystal City Bike Network.

The project team was able to address specific community preferences through the addition of a protected two-way facility on S. Clark Street from 27th Street S. to 23rd Street S and through continuing to include protected bicycle facilities through the site plan review process. As mentioned above, a preference for additional planning guidance for the Crystal City Bike Network was highlighted by the public in both community meetings and additional stakeholder meetings. Scoping and implementation in Crystal City will continue to be guided by the Crystal City Sector Plan, published in 2010, which called for comprehensive transit and bicycle networks, as well as the Master Transportation Plan Bike Element, published in 2019, which identified a comprehensive bicycle network for Crystal City.

DES-DOT staff recognize the intensity of development and investment in Crystal City due to Amazon's HQ2. Given this context and to ensure that the Crystal City Bike Network reaches full buildout and its potential, the project team developed an implementation timeline that will guide installation of the CCBN improvements within the required 4-year implementation window. The implementation timeline lays out the critical path for implementing the complete CCBN in a way that maximizes utility of each segment without creating incomplete or hazardous conditions for people biking. It accompanies this document.

CONCLUSION:

The proposed Crystal City Bike Network enhancements improve the network identified in previous Arlington County planning efforts such as the Crystal City Sector Plan and the Bike Element. Since March 2020, the project team has explored a variety of options to enhance the existing network, and staff put forth a recommended alternative to accomplish this in February 2021. The recommended alternative was further refined by incorporating feedback from individuals, community organizations, and various stakeholders gathered through public outreach.

The final network design utilizes both Crystal Drive and Clark/Bell Street to form a protected one-way pair of north/south bicycle facilities that are connected by east/west cross streets. A southbound protected bike lane on Crystal Drive and a two-way cycle track as well as a northbound, contraflow protected bike lane on Clark/bell Street will be implemented by Transportation staff. Further connections between these two paired facilities are achieved with enhanced bicycle facilities on 15th Street S., 18th Street S., 23rd Street S. and 26th Street S., along with other connections on 12th Street S. and 20th Street S.

DES-DOT staff will continue to explore opportunities to add to or improve facilities called for in this bike network as they occur through capital projects and adjacent site plan development.