

# BELMONT BRIDGE REPLACEMENT PROJECT STATUS REPORT – December 2018

The Value Engineering (VE) Study has been completed which is required for all transportation projects with a construction value over \$15 million to ensure taxpayer dollars are invested responsibly while still meeting the project's purpose and need. A thorough, independent analysis was conducted for the overall project to identify risks, improve constructability, and reduce costs. Some of the proposals already being incorporated into the project are:

- 1) Change construction methods of median within 9<sup>th</sup>/Avon Street
- 2) Reclassify Steel Reinforcement Specified with Retaining Walls and Bridge Deck
- 3) Redesign the Mezzanine Wall as same system as all other retaining walls
- 4) Removing crashwall on one set of piers by moving piers further from railroad tracks
- 5) Optimized bridge beam spacing

Some proposed measures that are currently being evaluated by the designer include:

- 6) Removing Drill Shaft foundations from one activity to match pile installation being used elsewhere on project
- 7) Revising construction details of the "Knuckle" (additional connection from bridge to Downtown Mall over Water Street) while achieving the same look and function

Two proposals will be presented to the Board of Architectural Review (BAR) for their consideration at their regularly scheduled meeting on February 19<sup>th</sup> at 5:30pm in City Council Chambers:

- 8) Replacing Scored Concrete Crosswalks with High Visibility Crosswalks at two signalized intersections. This would maintain consistency with other crosswalks within the City which aids in matching driver expectations, increases visibility of pedestrians in the crosswalk, improves constructability due to the multiple shifts in travel lanes during construction, simplifies maintenance in the future and reduces initial expenses by approximately \$88,500.
- 9) Replacing Scored Concrete with Asphalt in the Parking Lot on Old Avon Street. This was considered given its limited aesthetic contribution to the overall project – it will function as a parking lot with, presumably, parked vehicles blocking much of its surface – and the magnitude of cost savings – roughly \$290,000.

Updates will be provided to the BAR in response to their previous motion: renderings displaying the horizontal concept of the retaining wall architectural panels [aesthetic treatment of retaining walls/bridge abutments] with additional plan details; review of requested details on the stairs to

create more fluidity and cohesion [the south stairs particularly between pedestrian plaza & pedestrian underpass to 9th/Avon Street] and more information on the new, proposed light feature. It was found that the previously proposed light fixture could not shield or direct light away from the roadway which would have triggered a much higher level of lighting than experienced elsewhere in the City. A light study has been completed for the proposed replacement light fixture (shown below) that is similar in appearance.

These changes and any other adjustment to the plans based on staff or the Virginia Department of Transportation comments will be reviewed at the BAR February 19<sup>th</sup> meeting to obtain the final Certificate of Appropriateness (COA). Please refer to other items listed under the Work in Process section below for further activities being completed to finalize design and progress to the Right of Way Phase in Spring 2019.



## Project Work Activities

### Work in Process

- Developing **BAR presentation** for February 19<sup>th</sup> meeting for final COA application.
- Advancing conceptual **utility design** for public (underground) and beginning coordination with private (overhead) companies.
- Responding to City staff comments regarding **Hydraulic Design Report**.

- Responding to City staff comments regarding **detailed roadway plans**. Plans have been submitted to the VDOT for review with comments expected in early January (Right of Way section's comments have been received and are being addressed).
- Submitting **Landscape and Lighting plans** to City for review.
- Provided **revised Stage I Bridge Report for pedestrian tunnels** and Finalizing **Stage I Bridge Report for bridge and knuckle** in response to the VDOT's Structure and Bridge Division comments.

## Upcoming Work (now-January 2019)

- Continue coordination with Buckingham Branch Railroad (BBRR) regarding exception for the **railroad protective/pedestrian fencing** on bridge. The City has documented its position that the fencing should be eliminated based on evaluation with AASHTO guidance (visible to general public and lack of documented issues); examples of existing bridges in similar situations with no fencing that also lack incidents throughout City; proposed improvements for new bridge (increase in height of railing); and public input received throughout design effort.
- Scheduling **Utility Field Inspection** to discuss relocations and refine any needed easements.
- Refining **estimate** for right of way and construction for submission to the VDOT.
- Continued coordination with the VDOT to address any issues regarding **reports or submissions**.
- Completing an **appropriation** to commit all funding to project through construction phase.

## Project Overview

The bridge replacement project is striving to address four specific needs:

- 1) to improve safety for the traveling public;
- 2) to provide pedestrian and bicyclist accommodations;
- 3) to maintain connectivity with the surrounding community, neighborhoods and business activity centers; and
- 4) to accommodate vehicular traffic volumes.

The preferred concept proposes to address these needs with the following approved major design features:

- A replacement bridge that is shortened to approximately 236 LF in length and maintains the existing 62' width
- Roadway Section on Avon/9<sup>th</sup> Street between Levy Avenue and East Market Street intersections will consist of one travel lane in each direction, a protected 7' wide bike lane in

each direction and a 10' wide pedestrian sidewalk in each direction. Turning lanes will be added/lengthened at each intersection to maximize efficiency of each signal while maintaining traffic flow.

- “Old” Avon Street will be closed to vehicular traffic between Levy Avenue and East South Street to improve the function and safety of the Levy Avenue/9th Street intersection for all modes of travel while creating a pedestrian plaza within the former roadway.
- Enhanced pedestrian lighting and landscaping will be provided along 9th Street between Levy Avenue and East Market Street.
- New sidewalk will be constructed along neighboring streets to the project corridor and landscaping will be installed – on East South Street, Avon Street, Graves Street and Water Street.
- Additional new proposed pedestrian features include:
  - a pedestrian passageway under 9th Street south of the railroad,
  - a reconstructed staircase connecting “Old” Avon Street to 9th Street,
  - new staircases from 9th Street to Water Street on either side of the bridge north of the railroad and a mezzanine to cross 9th Street under the bridge

## Website

For more information about the Belmont Bridge Replacement project, please visit the [project web site](#).