



To: Planning Commission
From: Urban Design Committee
Date: September 19, 2016
RE: **Update to the Landscape Plan of Final Location, Character and Extent Review of the Greater Richmond Transit Company plans for the Pulse Bus Rapid Transit system; UDC No. 2016-39**

I. APPLICANT

Amy Inman, Department of Economic & Community Development

II. LOCATION

BRT Pulse stations in City of Richmond right-of-way along Broad Street, N. 14th Street and E. Main Street from the intersection of W. Broad Street and Staples Mill Road on the west to the intersection of E. Main Street and Orleans Street on the east.

Property Owner:

City of Richmond

III. PURPOSE

The application is for an update to the station landscape plans for the final Location, Character and Extent Review of the GRTC plans for a Bus Rapid Transit (BRT) system.

IV. SUMMARY & RECOMMENDATION

The GRTC BRT project is a regional collaboration among GRTC, the Virginia Department of Rail and Public Transportation (DRPT), the City of Richmond, and Henrico County. This review is to comply with the conditions placed on the Final Location, Character, Extent Review approval in 2015 for the project, specifically that the landscaping plan be reviewed by the Urban Design Committee and Planning Commission. The Urban Design Committee moved this item to their regular agenda to address submitted public comment and their own questions about some of the plant selections. Concerns were primarily directed at the selections of Zelkova trees and Euonymus coloratus "winter creeper" groundcover, as the latter is considered an invasive species. The applicant clarified that while the Zelkova is in the plant palette for multiple stations, it is only proposed to be used in one station near the VCU Health campus where Zelkova is already present. The Committee heard this clarification, but was still concerned with the proposed winter creeper and wanted the stations to better represent the surrounding neighborhood plant palette, and crafted a motion to that effect. The Urban Design Committee recommends that the Planning Commission grant final approval with the following condition: that the landscape plans use non-invasive, drought-tolerant groundcover with sympathy for the neighborhood palette.

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V. FINDINGS OF FACT

a. Site Description and Surrounding Context

The proposed 7.6 mile route for the BRT system runs along Broad Street from the western terminus at Willow Lawn Drive (in Henrico County), along N. 14th Street

and then along E. Main Street to the eastern terminus at Orleans Street. As expected with a route of this length, the adjacent land uses vary greatly and includes suburban office complexes, drive-through fast food restaurants, car dealerships, office buildings, museums, college campuses and residence halls, multi-family housing, retail shops, the convention center, government offices, a train station, and a brewery, just to name a few. Accordingly, there are many zoning designations represented along the corridor, with the adjacent properties zoned B-3 (General Business), B-4 and B-5 (Central Business), UB-PO4 (Urban Business with a Parking Overlay), M-1 (Light Industrial), M-2 (Heavy Industrial), RF1 and RF2 (Riverfront). The BRT route moves through the Broad Street City Old & Historic District and is adjacent to the Shockoe Slip, Old Stone House, St. John's Church, and Woodward House—Rocketts City Old & Historic Districts.

b. Scope of Review

The project is subject to location, character, and extent review under Section 17.07 of the Richmond City Charter as a “widening, extension, narrowing, enlargement, vacation or change of use of streets.”

c. UDC Review History

In November 2015, after UDC review, the Planning Commission approved the final location, character, extent of this project with the following conditions recommended by the Urban Design Committee:

- That applicable City agencies develop, and return for UDC and PC approval, a plan to provide a buffer (planters/street trees/bike racks, etc.) in areas along the corridor where on-street parking will be removed in order to enhance the streetscape for pedestrians. This plan should also show areas where curb cuts could be closed or reduced in width to allow for additional on-street parking, following an examination by the City Department of Public Works, coordinated with GRTC.
- That the BRT planning team and the City Department of Public Works Urban Forestry Division produce a tree survey, showing the location, size and species of all trees that will be removed along the project corridor as a result of this project.
- That the BRT planning team and the City Department of Public Works Urban Forestry Division develop, and return for UDC and PC approval, a plan to provide deciduous, shade-producing street trees in areas adjacent to those where existing trees will be removed, or, if space is not available in the vicinity, in other areas along the BRT corridor.
- That the BRT planning team develop, and return for UDC and PC approval, a final landscape plan for the stations, and that the plant palette is composed of drought tolerant and native species.

d. Project Description

The GRTC BRT project is a regional collaboration among GRTC, the Virginia Department of Rail and Public Transportation (DRPT), the City of Richmond, and Henrico County. The proposed 7.6 mile BRT route runs along Broad Street from the western terminus at Willow Lawn Drive (in Henrico County), along N. 14th Street and then along E. Main Street to the eastern terminus at Orleans Street. This review is satisfy the condition that the “BRT planning team develop, and return for UDC and CPC approval, a final landscape plan for the stations, and that the plant palette is composed of drought tolerant and native species”.

Plantings for curb-running stations, installed across sidewalk right-of-way, will vary based on the space constraints of each station location; some stations do not have a rear planting area or side planting area because of the tightness of the streetscape. Some include as “Green vase” Zelkova to the side of the station. But generally, the planting areas consist of two end beds filled with groundcovers and perennials, with either a shrub marking the corner, proposed “Rotunda” Ilex. Groundcovers at the rear of the side side areas are “Angelina” Sedum and the perennial in the front section is “Caesar’s Brother” Iri. The rear planting band is proposed as Euonymous Coloratus groundcover.

Plantings for the median-running stations are less symmetrical, due to the tapering of the station and the different configuration. The Cleveland Street West station, for example, is planted with three “Red Rage” Nyssa trees, as well as lines of shrubs, groundcovers, perennials, and grasses. Additional plants in the palette beyond the curb running stations palette include: “Green Beauty” Buxus, “Zarsbjoh” Rosa as well as a variety of groundcovers, grasses, and perennials. Other curb running stations use a related plant palette that includes Gingko Balboa as well as a variety of shrubs, groundcovers, grasses, and perennials.

Station Landscaping

All stations will be landscaped, but to varying extents depending on the location. Primarily, landscaping will feature groundcovers, grasses, perennials and shrubs, but there are also some opportunities for trees to be planted. Due to the locations of the stations, plants have been selected for their hardiness and ease of maintenance. Stormwater from the platform canopies will be diverted into the station landscaping, with any excess being diverted to the City sewer system. A full list of suggested plants was presented in the conceptual plan package.

For reference, information specific to the stations, their design, and location from the prior final approval is included below:

Stations

The BRT system will have 14 stations along the Broad and E. Main Street corridors with a total of 26 platforms. Each station will have an eastbound and westbound platform, except the western and eastern termini. Ten of the station platforms will be located in the Broad Street median, nine station platforms will be curbside walk-through (where the platform occupies all of the usable sidewalk space), and seven station platforms will be curbside but will have sufficient sidewalk depth for pedestrians to use the sidewalk to the rear of the platform. All but one of the platforms, the western terminus being the exception, are located within City limits.

Station Design

The station designs seek to take their cues from the architecture and materials used around the city. Importantly, the designers note that several of the stations are located in City Old & Historic Districts, and attempts were made to integrate the stations into the historic fabric of the city. The stations designs are all consistent to make them easily recognizable as transit stops, however, there are also maintenance benefits that result as well. The structural supports of the stations are composed of steel, supporting a low-angle canopy composed of a standing seam metal roof painted gray. The underside of the canopy is to be composed of cedar planks, similar to the train sheds behind the Science Museum of Virginia (formerly Broad Street Station). The low walls of the platforms will have a brick base topped

with a granite cap. The back wall of the platform is a wind screen composed of a transparent glass or polycarbonate (not yet finalized) containing an image of the BRT system map. A separate screen wall is provided at each station as a placeholder for public art.

The platform is 10' 6" deep and 43'-45' long. For comparison, the existing GRTC passenger shelters are 8 $\frac{3}{4}$ ' deep and 17' long. When the ramps are added on to the BRT platforms, the overall station length is about 80'. The platforms ramp up to be at grade with the bus doors (about 17" above street level) so that the bus does not need to kneel down or unfold an accessible ramp. The sidewalk materials at each of the stations will match those on the adjacent sidewalks, either brick or concrete. The distance from the platform floor to the top of the canopy is 11', and the station identification totem is 17' in height. Following a recommendation made during conceptual review, the applicants have modified the sidewalk width through the platform so that 5'2" is the minimum width, a gain of 14" from the previous design. Access to and from the stations will consist of visible and designated crosswalks with potential safety strobe lights at non-signalized intersections and bollards where necessary.

Amenities at the stations will include benches, a leaning rail and trash cans. Bike racks will be provided from the group of approved, City-standard racks, and could vary in capacity by location as space permits. The City will also seek to locate bike share stations near the BRT stations as that initiative progresses. The platforms will all have a ticket vending machine that allows riders to purchase a pass before boarding, saving time during passenger loading. Each platform will be outfitted with centrally-monitored security cameras. Light fixtures will direct lighting towards the station and will typically be in the 10-20 foot-candle range. The designers are exploring using motion sensors in the station to allow the light levels to be reduced by 50% when motion is not detected. In addition, the surrounding illumination levels from the existing street lights will also be considered to prevent over-illumination. The color temperature of the lights will be 3000k.

Station Locations

The station locations identified in the Broad Street Bus Rapid Transit Study were selected based on several criteria, including the recommendations from a Comprehensive Operations Analysis that had been conducted for GRTC, existing transit ridership, an examination of population and employment densities along the corridor, development along the corridor including current and future activity centers, accessibility to local bus service, and pedestrian and bicycle access.

Willow Lawn (Henrico County)

A single curbside platform on W. Broad Street just west of its intersection with Willow Lawn Drive. This is the western terminus of the BRT.

Staples Mill

Two curbside platforms – the westbound platform located on the northwest side of the intersection of W. Broad and Chantilly Streets; the eastbound platform located at the southeast side of the intersection.

Hamilton/I-195

Two median platforms located between Cleveland Street and N. Belmont Avenue.

N. Robinson

Two median platforms located between Terminal Place and N. Robinson Street.

N. Allison

Two median platforms located between Strawberry and N. Allison Streets.

Shafer

Two median platforms located between N. Harrison and Shafer Streets.

N. Adams

Two median platforms located to either side of the intersection of W. Broad and N. Adams Streets.

N. 3rd/N. 4th Street

Two median platforms – the westbound platform located to the northwest side of the intersection of E. Broad and N. 3rd Streets; the eastbound platform located to the southeast side of the intersection of E. Broad and N. 4th Streets.

N. 9th Street

Two curbside platforms – the westbound platform located on the northeast side of the intersection of E. Broad and N. 9th Streets; the eastbound platform located at the southwest side of the intersection.

N. 12th Street

Two curbside platforms – the westbound platform located on the northwest side of the intersection of E. Broad and N. 12th Streets; the eastbound platform located at the southeast side of the intersection.

Main Street Station

Two curbside platforms – the westbound platform located on the northeast side of the intersection of E. Main and N. 15th Streets; the eastbound platform located at the southwest side of the intersection of E. Main and S. 17th Streets.

N. 25th Street

Two curbside platforms – the westbound platform located on the northwest side of the intersection of E. Main and N. 25th Streets; the eastbound platform located at the southwest side of the intersection.

Route 5

Two curbside platforms – the westbound platform located on the north side of the road to the west of the intersection of E. Main and Nicholson Streets; the eastbound platform located on the opposite side of the street.

Rocketts Landing

A single curbside platform on Orleans Street just east of its intersection with Old Main Street. This is the eastern terminus of the BRT.

The project is being delivered via a Design-Build method as opposed to a traditional Design-Bid-Build method. In the Design-Build method the contractor and the designer work concurrently as one team to deliver the project in a shorter

timeframe. VDOT is managing the delivery of the Design-Build project on behalf of GRTC, the City of Richmond, and Henrico County.

e. Master Plan

The City's Master Plan (2000) designates Broad Street as a Principal Arterial in the road hierarchy, defined as "major routes carrying high traffic volumes originating in areas not conveniently served by interstates or freeways" (page 40).

The Master Plan provides general guidance appropriate to the BRT project, acknowledging that the existing grid system in many of the City's older neighborhoods provides a variety of travel opportunities that evenly distributes traffic and that "alteration of this system through selective street closings or other techniques has the potential to seriously impact other streets and neighborhoods" (page 52). Another important consideration put forth by the Master Plan is that in order to develop a successful multi-modal transportation system, the specific needs of bicyclists and pedestrians must be accommodated (page 38).

f. Urban Design Guidelines

The Guidelines impart that streetscape elements, such as street trees and street lighting, should be used to encourage pedestrian activity and that striped crosswalks, pedestrian crosswalk signals, and other improvements that enhance safety should be installed as a standard amenity at all signalized intersections (page 6). The Guidelines contain several recommendations applicable to the proposed stations, noting that "a comfortable, safe, and quality environment should be created at transit stops (page 6). The Guidelines note that "site furnishings, such as benches and trash receptacles, should be appropriately styled and scaled to complement building architecture" and that "decorative streetscape planters are not recommended, unless they will have plantings in them year-round and be well maintained" (page 24). The Guidelines also note that "site furnishings should be durable, both in construction and finish, and be easy to maintain and to install" (page 25).

VII. ATTACHMENTS

- a. Vicinity Map**
- b. Application**
- c. Plans**