City of Richmond, Virginia
Department of Planning and Development Review
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To: Urban Design Committee
From: Planning and Preservation Division
Date: July 3, 2018
RE: **Final Location, Character, and Extent Review of modifications to Hull Street, from Chippenham Parkway to Arizona Drive; UDC 2018-28**

I. APPLICANTS
Adel Edward, Department of Public Works

II. LOCATION
Along Hull Street from Chippenham Parkway to Arizona Drive

Property Owner:
City of Richmond and affected private property owners

III. PURPOSE
The application is for final location, character, and extent review of modifications to Hull Street, from Chippenham Parkway to Arizona Drive.

IV. SUMMARY & RECOMMENDATION
This project involves modifications to Hull Street from Chippenham Parkway to Arizona Drive, including the provision of a 7' wide green space and 5' wide sidewalk along the eastbound side and a 9' wide green space and 10' wide shared-use-path along the westbound side to provide pedestrian and bicycle safety and route continuity along the entire corridor. The plans also separate the vehicular through lanes from turning lanes, reducing the number of conflict points along the corridor. The improvements will also include curb and gutter along with a drainage system to handle stormwater runoff.

Staff is supportive of the provision of bicycle and pedestrian accommodations along this section of Hull Street with modifications to the vehicular roadway. Staff finds that this corridor will be aesthetically enhanced by the proposed improvements, which will help to provide a much more formalized appearance, consistent with the recommendations of the Master Plan designation of Hull Street as an image corridor.

Furthermore, Staff finds the proposal to be consistent with the recommendations contained in the 2013 Hull Street Corridor Revitalization Plan and that the improvements are generally consistent with the recommendations of the Urban Design Guidelines. Therefore, Staff recommends that the Urban Design Committee recommend that the Planning Commission grant final approval with the following conditions:

- That details on the proposed retaining walls be reviewed administratively prior to approval
- That details of the tree planting plan be reviewed administratively prior to approval
- That the applicant consider the connectivity to the proposed Pocosham Greenway and the proposed James River Branch Trail

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V. FINDINGS OF FACT

a. Site Description and Surrounding Context

The subject right-of-way is along Hull Street from Chippenham Parkway to Arizona Drive, a distance of 2.3 miles. Land use along the corridor varies widely, with a shopping center at the intersection with Chippenham Parkway and other standalone commercial buildings throughout, a church, and single and multi-family residential dwellings. Likewise, zoning designations along the corridor vary, with the B-3 (General Business), B-2 (Neighborhood Business), OS (Office/Service), RO-2 and RO-1 (Residential/Office), R-48 (Multi-family residential) R-3 and R-2 (Single-family residential) districts represented.

With the exception of the three-lanes in each direction portion from Chippenham Parkway to Elkhardt Road, the subject section of Hull Street contains two lanes in each direction, separated by a concrete median and with wider areas for turn movements, at a posted speed limit of 35mph. The existing traffic counts indicate approximately 25,000 vehicles per day use the Hull Street corridor within the project limits. The road edge along the corridor varies between curb and gutter with sidewalk and roadside ditch with a hard-packed earthen path. There are extensive curb cuts in front of the commercial uses. In many cases, entrances to adjacent properties are simply open gravel shoulders with no defined vehicular entrances.

In Chesterfield County, Hull Street primarily carries three lanes of traffic in each direction, separated by a landscape median.

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 of streets”.

c. Project Description

This project involves modifications to Hull Street from Chippenham Parkway to Arizona Drive, including provision of a 7’ wide green space and 5’ wide sidewalk along the eastbound side and a 9’ wide green space and 10’ wide shared-use-path along the westbound side to provide pedestrian and bicycle safety and route continuity along the entire corridor. The plans also separate the vehicular through lanes from turning lanes, reducing the number of conflict points along the corridor. Proposed installations of Curb and gutter and a drainage system will accommodate stormwater runoff.

The project will be designed as an Urban Major Arterial with a design speed of 40 MPH and is to be posted at a speed limit of 35 MPH. The existing traffic counts indicate approximately 25,000 vehicles per day use the Hull Street Road corridor within the project limits. This number is expected to increase to approximately 35,000 vehicles per day by the Design Year 2040.

This project will enhance capacity and improve safety for motorists, pedestrians, and bicyclists by separating the through lanes from turning lanes and by reducing the number of conflict points along the corridor. The proposed improvements will provide a consistent 4 lane typical section (11’ wide lanes) with two lanes each

direction and a 15’ wide median with left turn lanes and adequate storage length at intersections, major traffic generators, and median crossovers.

The project includes an Access Study to evaluate and consolidate access points and existing median breaks and identifies median crossovers allowing left turns or u-turns to serve private and business properties. Intersections will be evaluated and designed to improve the angle of intersection and provide sufficient storage lane capacity for thru and turning traffic. Median widths at intersections and mid-block locations will be evaluated for providing pedestrian refuge areas, GRTC Bus Stop access and to enhance safety. Bus Stop locations will be coordinated with GRTC to address current and anticipated bus routes. Bus Stop locations may be adjusted as agreed with GRTC to best serve ridership and to improve bus access and safety. Bus Stop design will be coordinated with GRTC to best accommodate the ridership at each location. Landscaping, pedestrian, and street lighting will be provided to further enhance motorist, pedestrian, and bicycle usage, visibility and safety.

An existing Double 8’x8’ Box Culvert crossing Hull Street Road just west of Hey Road and an existing Triple 8’x6’ Box Culvert just east of Hey Road will be lengthened to meet the proposed widened roadway typical section. Modifications will be extended on the upstream and downstream ends and construction of new head walls and wing walls. The existing Double 5’x4’ Box Culvert that crosses Hull Street Road just west of the Woodhaven Drive and Southwood Parkway Intersection will be extended on the downstream end due to the widened typical section. Modifications to the downstream end include the construction of a new head wall and wingwalls.

Retaining Walls are anticipated near the intersection of Hull Street Road and Orcutt Lane to avoid roadway and shoulder slope encroachment into the Chippenham Place Apartments and near the end of the project to avoid roadway shoulder slope encroachment onto Old Hull Street serving as a frontage road between Hull Street Road and the Brookhaven residential community.

The combined effect of the improved typical section, the addition of turn lanes and storage lanes within the median and on approaching roadways, stormwater management, the separated provisions for pedestrian and bicycle traffic, the addition of street and pedestrian lighting, project landscaping and a reduction in conflict points will enhance the corridor’s capacity and improve safety for all users.

The City, in conjunction with VDOT and Chesterfield County completed a Hull Street Road – Route 360 Revitalization Study and Plan in early 2013 recommending improvements to the roadway corridor including provisions for pedestrian and bicyclist facilities, landscaping and lighting to enhance comfort and safety. Improvements to the City’s portion of the Revitalization Plan is anticipated to improve development and corridor use along the corridor.

The Hull Street Road Improvement Project will utilize a combination of City of Richmond Local Funds, Federal, and State Transportation Funds. The City has secured Smart Scale funding through VDOT for Phase 1 of the Project from Hey Rd to Warwick Rd which is 1.25 miles long. The City is actively seeking additional transportation participation from Federal and State funding sources to

complete the overall project. The preparation and documentation of all necessary environmental documents, project development phases and permitting will be completed to ensure the capability of requesting and utilizing Federal and State participation.

The design of Hull Street Road and other improvements will be in compliance with the Stormwater Management Act, stormwater regulations and the annual stormwater management standards and specifications approved by the Virginia Department of Conservation and Recreation.

Construction will be phased to utilize federal, state and local funds as they are identified and available. Currently Phase I from Hey Road to Warwick Road is funded for construction with federal and state Smart Scale funds.

The construction of this project will conform to the nationwide best management practices, Federal Highway Administration and City of Richmond specifications and special provisions, and the Virginia Department of Soil and Water conservation regulations. During construction, every reasonable effort will be made to protect the environment with respect to dust and erosion control. Access to all properties will be maintained during construction.

The project cost estimate is $35,940,000 including $3,050,000 for the engineering of Roadway Plans, $7,590,000 for right-of-way acquisition, relocation assistance and utility relocation, and $25,300,000 for construction.

A public hearing for the project was held on June 6, 2018. Project cost estimates will be adjusted and refined as work continues on finalizing the project documents and plans.

d. UDC Review History

In 2015, the UDC reviewed and the Planning Commission approved the conceptual plans for the modifications with the following conditions:

(1) That the final plans include a landscape plan and schedule showing plant species, location, quantity, and size at the time of installation.

(2) That the final plans include a lighting plan, showing make, model and finish for any light pole and fixture, as well as fixture light source and color temperature. It is recommended that light fixtures be full shutoff, with a color temperature of 3000k.

(3) That all signalized intersections contain accommodations for pedestrian crossing, including striped or ladder-style crosswalks and countdown signals.

(4) That pedestrian crossings of Hull Street contain refuge islands.

(5) That the final plans include details on the proposed retaining walls.

(6) That the applicant sets aside space for a City gateway sign at the western end of the corridor.

(7) That the applicant investigates reducing lane widths to promote pedestrian safety.

(8) That the applicant investigates reducing the turning radius at cross streets to support pedestrian safety, or provide rationale for why not to reduce the radii.

(9) That the applicant work with the Department of Public Works to accommodate the crossing of the proposed Pocosham Greenway and investigate connectivity to the proposed James River Branch Trail.

In 2010, the UDC reviewed and the Planning Commission approved improvements to the intersection of Hull Street and Hey Road/Derwent Road. Those improvements have been constructed. Staff was unable to identify any other UDC-reviewed projects along the subject corridor.

e. Master Plan

The subject right-of-way straddles the line between two planning districts in the Master Plan, with the north side of the road in the Midlothian District and the south side of the road in the Broad Rock District. West of Warwick Road, the Plan primarily recommends Community Commercial uses for the area, with a pocket of General Commercial at Chippenham Parkway, and areas designated for Public and Open Space and Single-family (low density) Residential on the north side of the road. East of Warwick Road, the Plan primarily recommends Single-family (low density) Residential, with a large area recommended for Multi-family (medium density) Residential at the southeastern project limit.

The transportation subsection of the Plan for both districts states that “Hull Street should be widened from 4 to 6 lanes between Elkhardt and Dixon Roads” (page 154, repeated on page 217), an area that covers almost the entirety of the project limits.

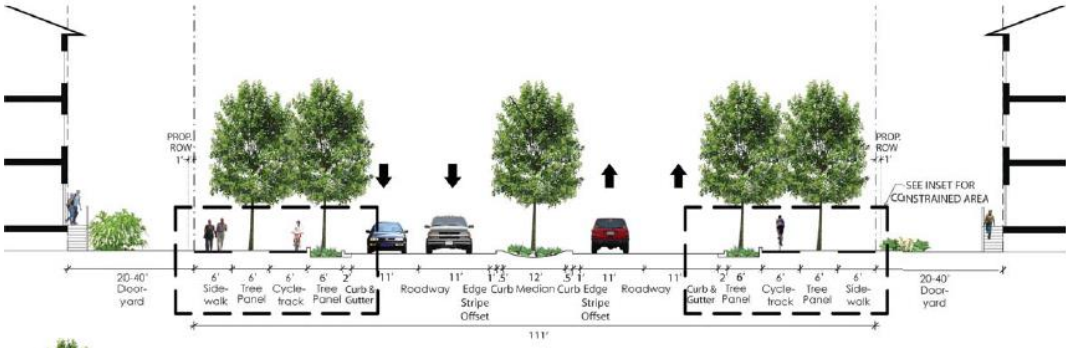
In general, the Plan offers up the following summary of the corridor: “The existing land use pattern on Hull Street, particularly between Warwick Road and the City limits, is one of strip commercial development of varying depths, backing up to stable residential neighborhoods. Continuation of this pattern of uses, with some transition to office uses, has historically been the land use policy for Hull Street. A similar approach is reflected on the current land use map. However, it is recognized that, like several other major transportation corridors in the City, further study of conditions along Hull Street is warranted, to more effectively develop land use and/or redevelopment strategies for both sides of the corridor. Until such time as a more detailed plan can be developed, office and commercial uses should be allowed as shown on the land use map, provided that they can be adequately buffered from adjacent neighborhoods. All traffic and access should be focused on Hull Street. Significant consideration should be given to any development proposals that provide enhanced design and an improved image for the corridor” (page 152, repeated on page 215).

The Transportation chapter of the Plan designates Hull Street as a Principal Arterial Roadway, defined as a “major route for carrying high traffic volumes originating in areas not conveniently served by interstates or freeways; generally with four to six moving lanes, sometimes with a median but not limited access” (page 40). The Transportation and Roadway Improvements map also designates the corridor as a bike route, and the accompanying text notes that those roads so identified on the map have been chosen “as the most efficient, safe and appropriate locations for shared motor vehicle/bicycle traffic. These routes are appropriate for designation either through signage or delineated bike lanes” (page 38). The Plan further states that “routing systems for both cycling and walking should be just as important to the City’s transportation network as are the roadways that support motorized travel” (page 38). To that end, the Plan advocates a policy to “construct new roadway segments that include bikeways and sidewalks” (page 38).

The Community Character section of the Plan designates Hull Street as a Principal Arterial Image Corridor, and states that “image corridors are key transportation corridors that have the ability to form an impression on travelers passing through the City” (page 110). The Plan goes on to say that “enhancement of the City’s image corridors conveys a positive impression of the City to encourage visitation and investment” (page 110).

In 2013 the City followed the Master Plan’s recommendation that more detailed plans be developed for the corridor, and along with Chesterfield County produced a plan for the revitalization of Hull Street, focused on the area between Walmsey Boulevard/Hicks Road in Chesterfield County and the CSX rail line west of Belt Boulevard in the City. The Hull Street Corridor Revitalization Plan was adopted as part of the City Master Plan by City Council in February 2014, and the ordinance adopting the plan states that the revitalization plan supersedes all other parts of the Master Plan with which it conflicts.

The portion of Hull Street in the plan coincides with the section of Hull Street that is the subject of this proposal. After studying the corridor, the plan set forth the dual objectives of expanding non-auto travel options and changing the physical image and character of the street. Considering several options, the plan recommends an alternative that “best addressed the safety, mobility and revitalization objectives of the effort was a “typical section” that provided separate facilities for all modes – pedestrians, cyclists and vehicles – as well as medians and planting strips that made dramatic changes in the visual impression of the corridor” (page 97).



Typical section proposed in the Hull Street Corridor Revitalization Plan (page 97)

The proposed typical section includes: a continuous pedestrian sidewalk network and crossings; a separated cycle track/bicycle way on each side of the corridor; a landscaped buffer between pedestrians and bicycle way and travel way that provides sufficient space for comfortable and furnished transit stops and amenities; a landscaped median that provides accommodation of left turn lanes at intersections to reduce rear end and rear-angle crashes; and provide safe pedestrian crossings with a minimum 6’ pedestrian refuge even when the median is reduced to provide a left turn pocket; two travel lanes in each direction to maintain vehicular capacity and operation; and a gutter pan that can channelize water into low impact development (LID) features in the planting buffer (page 97).

The plan notes that this preferred alternative “offers a significant opportunity for increased open space. Shade trees and benches add to the quality of open

space along Hull Street, while sidewalks, cycle tracks, and multi-use trails link areas of higher-density development, join open spaces, and connect create connections between neighborhoods. The proposed streetscape serves as a critical piece of green infrastructure by functioning as a transportation route and supporting community activity while improving the aesthetic quality of the corridor as a whole" (page 88).

Nonetheless, the plan concedes that there are constrained segments of the corridor (those incapable of accommodating the full preferred typical section), especially in the City, and provides alternatives to the typical section, including removing the landscape buffer between bicycle and pedestrian facilities and combining facilities into a multiuse path (differentiate between the facilities with different paving materials) and combining the facilities into a multiuse path and reducing the overall width to a minimum of 10' total (page 100).

The Plan also recognizes that "The current and future potential to walk and cycle on the corridor is constrained by the barrier of the interchange onto Chippenham Parkway. Hull Street Road goes under the parkway, and room for future non-motorized facilities is limited. Pedestrians today must cross numerous high-speed on and off ramps to get through this area" (page 20).

The City's Bicycle Master Plan, completed in May 2015, categorizes roadway quality in the City in terms of bicycle safety, comfort and ease of movement, and assigns them a score based on the level of stress a bicyclist is likely to experience when traveling along the roadway. The plan places the subject section of Hull Street in the "least comfortable" category (page 2-11).

The plan then proposes a shared-use path along Hull Street from Chippenham Parkway to Belt Boulevard (page 3-9) and identifies the path as a mid-term (4-7 year) project on the prioritization table (Page 3-11). The plan notes that shared use paths are facilities separated from roadways for shared use by bicyclists and pedestrians. In general, an 8' width is the minimum allowed for a two-way shared-use path and is only recommended for low traffic situations, 10' is recommended in most situations and will be adequate for moderate to heavy use, and 12' is recommended for heavy use situations with high concentrations of multiple users. The plan also notes that a 3' or greater shoulder should be provided on both sides of the path to allow for the installation of signage or other furnishings (page A-22).

f. Urban Design Guidelines

The Transportation section of the Urban Design Guidelines note that "new development should provide sidewalks along streets where there are currently no sidewalks or sidewalks in disrepair" and that the "number, size and location of curb cuts should be examined for potential conflicts with pedestrian and vehicular circulation (page 4). In a section on Multimodal Transportation, the Guidelines state that "where feasible, all new roadway segments should be constructed to include bikeways" and that "roadways with bike routes should be enhanced with street trees or appropriate landscaping" (page 5). Similarly, the Guidelines note that "all transportation projects should have adequate provisions to address the needs of the pedestrian in a safe and efficient manner" and that "street trees and lighting should be used to encourage pedestrian activity". The Guidelines go on to say that "striped crosswalks, pedestrian crosswalk signals and other

improvements that enhance safety should be installed as a standard amenity at all signalized intersections" (page 5).

In a section on Street Design, the guidelines state that "the width of a street should respond to the volume of traffic it carries. An 11 foot travel lane should only be utilized along corridors designed for speeds in excess of 40mph" (page 6). In this section the Guidelines also note that "medians can provide both aesthetic benefits and operational utility within the street network". The Guidelines go on to say that "pedestrian crossings should be clearly marked and refuge islands should be provided where the crossing distance is 60' or greater" (page 7).

In regards to landscaping/street trees, the guidelines offer that "plant materials should be adaptable to existing soils, climatic and lighting conditions, and be disease resistant. Native plant species are encouraged, but not required" (page 10). Further, the Guidelines note that "landscaping should provide a sense of scale and seasonal interest" and that "shade trees for pedestrian comfort should be the predominant plant material in an urban setting" (page 10).

VII. ATTACHMENTS

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