City of Richmond, Virginia
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To: Planning Commission
From: Urban Design Committee
Date: May 13th, 2021
File ID: UDC-090672-2021
RE: **Final location, character, and extent review of the Byrd Park Tanks roof replacement, 600 S. Arthur Ashe Boulevard; UDC 2021-18**

I. APPLICANTS
Ricky Hatfield, Department of Public Utilities

II. LOCATION
600 S. Arthur Ashe Boulevard (formerly 700 S. Boulevard)

Property Owner:
The City of Richmond Department of Public Utilities

III. PURPOSE
The application is for final location, character and extent review of the roof replacement for the Byrd Park Tanks.

IV. SUMMARY & RECOMMENDATION
The Byrd Park Reservoir, constructed in 1876, currently utilizes a pre-stressed concrete roof installed in the early 1970s. This proposal seeks to replace the aging concrete roof with two new aluminum roofs. The proposed new roofs will be slightly more visible and will have a taller pitch than the existing roofs in order to provide adequate roof drainage. Additionally, new overflow vents will be constructed to allow free discharge at grade level and will be constructed with an architectural cast stone exterior wall similar to the Columbus Pumping Station Electrical Building located on the north side of the reservoir.

The applicant has addressed the Urban Design Committee's and Planning Commission's conditions of approval for the conceptual review of this project in 2019, proposing a new, decorative fence around the perimeter of the top of the tanks in order to reduce visibility of the new roofs and to replace the existing chain-link fence, creating a new pedestrian walkway at grade along the northern perimeter of the tanks, and developing a planting plan for the replanting of any trees that are removed for construction. Safety issues have been addressed by removing the deteriorating concrete stairs that flank the eastern and western edges of the tank and rebuilding the stairs on the southern side of the tanks for tank access.

The Urban Design Committee recommends that the Planning Commission grant final approval of the project with the following conditions:

- A physical sample of the new roof material be submitted to staff for review prior to construction

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V. FINDINGS OF FACT

a. Site Description and Surrounding Context

The tanks are part of the Byrd Park Reservoir located in Byrd Park at the terminus of Arthur Ashe Boulevard. The tanks are located within a 20-foot high earthen berm that forms the reservoir walls and encloses approximately eight acres. The reservoir contains two sloped access roads on the northern side that allow vehicular entry to the perimeter road. Currently, there are three concrete stairs located on the eastern, western, and southern sidse of the reservoir. The reservoir is bordered to the east and south by Byrd Park and the park's VITA trail. Arthur Ashe Boulevard extends from the north of the reservoir, flanked by tennis courts to the west and Fountain Lake on the eastern side. To the west of the reservoir is the Carillon Neighborhood National Register Historic District.

The site is within the R-2 (single-family residential) zone and borders an area zoned R-4 (single-family residential) to the west.

b. Scope of Review

The improvements associated with this project are subject to location, character, and extent review as a "public building or structure" in accordance with Section 17.07 of the Richmond City Charter.

c. UDC Review History

In March 2019, The Urban Design Committee undertook the conceptual location, character, and extent review of the Byrd Park Tanks roof replacement (UDC 2019-09) and recommended approval with the following conditions:

- That the applicant consider and provide an explanation of possible alternatives to minimize the visibility of the roof from surrounding areas
- That the applicant provide necessary materials, when appropriate, for final review
- That the applicant provide a tree demolition plan including a detailed planting plan, for final review
- That the applicant consider and provide an explanation of possible improvements to pathway materials and circulation
- That the applicant consider and provide an explanation of possible alternatives to fencing design (around the reservoir roof)
- That the applicant confirm if this project is eligible for a 1% allocation for public art, and if so, that the applicant include public art

The Planning Commission subsequently approved the conceptual plan with the Urban Design Committee's recommendations.

d. Project Description

The existing Byrd Park Reservoir is located at the southern end of Arthur Ashe Boulevard in Byrd Park. This water storage reservoir is familiar to many residents because of the 20-foot high earthen berm that forms the reservoir walls, enclosing an area a little over 8 acres in size.

The Byrd Park Reservoir was built in 1876 and was provided with a pre-stressed concrete roof in the early 1970s that fully enclosed the open-air reservoir to form two 25-million-gallon tanks. The existing concrete tank roof is reaching the end of its useful life and is being scheduled to be replaced by two new aluminum roofs. The Department of Public Utilities plans to upgrade this water storage facility with the following improvements in addition to the tank roof replacement:

- Replacing existing tank outlet gates
- Upgrading tank overflow piping systems
- Replacing existing tank inlet and outlet valves
- Constructing new City Zone 2 North Transmission Main around the tanks for improved system reliability and redundancy
- Providing tank security system enhancements
- Providing tank ventilation system improvements
- Providing new tank mixing systems for water quality enhancement
- Constructing a new electrical and control building
- Providing other water storage facility upgrades and improvements

In order to provide adequate roof drainage, the proposed new aluminum tank roofs will have a slightly higher level at their center than the existing concrete roofs. The new roofs will only be slightly more visible than the existing roofs because of the height of the existing earthen berms that surround the tanks.

The plans call for the old concrete stairs on the east and west side of the tanks to be removed to improve park user safety levels. The existing concrete stair on the south side of the tanks will be replaced by a new upgraded concrete stair to allow the operator safer access to the tanks.

The tanks will be provided with new overflow systems that need free discharge vents at grade level at the tanks' earthen berms. It is proposed that each overflow vent be provided with a small structural security enclosure that is recessed into the earthen berms to minimize park user impacts. These overflow vent structures will have architectural cast stone exterior walls that are similar to those of the Columbus Pumping Station Electrical Building which is located on the northwest corner of the existing tank earthen berm.

The two northern access drives from Arthur Ashe Boulevard and the fencing system around the top of the tank earthen berms will not be significantly altered by this project. It is planned that two existing northern access drives from Arthur Ashe Boulevard will be used for removal of the existing concrete roofs and construction of the two new aluminum roofs, and for making other water storage tank upgrades and improvements. The use of these existing tank access drives for construction traffic will limit project impacts on park users. The existing

cobblestone pavers at the Arthur Ashe Boulevard entrances will be removed during construction, and then replaced when the project work requiring access to the tanks has been completed.

The proposed tank valve replacements and piping system improvements on the east side of the Trafford Pumping Station will be routed through the park to minimize overall impacts, but it is expected that some existing tree removals will be needed. It is planned that some new trees will be provided at better locations within the park.

The City of Richmond, Department of Public Utilities will finance this project from their Capital Budget.

With final submission, the applicant has addressed the UDC's conditions of approval from the conceptual submission UDC 2019-09 in the following ways:

1. **Condition 1:** ***That the applicant consider and provide an explanation of possible alternatives to minimize the visibility of the roof from surrounding areas.*** The following screening options were considered:
    1. *Perimeter landscaping to shield new roof from public view.* This option was not found feasible, as the root system of any landscaping could compromise the integrity of the earthen berms that surround the tanks.
    2. *Existing fence replacement by new ornamental and security type fence.* This option was found feasible.
    3. *Existing fence provided with fabric as a visual screen for the new roof*. This option was found feasible.
    4. *Use existing fence without changes.* This option was not found feasible because of the concerns with visual appearance of the existing chain-link fence raised by the Urban Design Committee.

    The City has decided to move forward with option 2. Specifications on the decorative fencing have been included with the final submission.

2. **Condition 2:** ***That the applicant provide necessary materials, when appropriate, for final review*****.** The applicant has provided final design drawings and details for the new replacement roof with the final submittal.

3. **Condition 3:** ***That the applicant provide a tree demolition plan including a detailed planting plan, for final review.*** The applicant has included a tree demolition plan with the final submittal as well as an overall landscape plan for the project area. The Department of Public Utilities has also provided Urban Forestry with a $13,000 cost allocation to provide for any additional tree planting needed for forestry sustainability after this project has been completed.

    Meetings were held with park staff and Urban Forestry staff concerning the plan for providing replacement trees in the park. City park staff provided recommendations for placement of new trees, which are consistent with the park master plan, in the park under this project.

    The landscaping plans include the replacement trees for both the Valve and Pipeline Project and the Tank Roof Project. The new trees would be installed after both projects have been completed

4. ***Condition 4: That the applicant consider and provide an explanation of possible Improvements to pathway materials and circulation.*** Site inspections and evaluations were conducted and summarized and then meetings held with the Parks Department staff to discuss park pathway system improvement plans. These evaluations concluded that a new park pathway be provided around the east side of the tanks from Arthur Ashe Boulevard on the north side of the Byrd Park Tanks. This route provides a Park Pathway from Arthur Ashe Boulevard to the main Park Pathway system. The new Park Pathway will use portions of an existing pathway around the east side of the Byrd Park Tanks which appear to have been abandoned over the years. The new Park Pathway will be constructed of the same materials used for the other pathways within the Park.

5. ***Condition 5: That the applicant consider and provide an explanation of possible alternatives to fencing design (around the reservoir roof).*** UDC members indicated, during the UDC meeting, that the existing chain link fencing system around the tanks needs to be replaced by a new fencing system with improved visual appearance. It is proposed that existing fence replacement alternatives be developed and evaluated.
   These evaluations concluded that the existing galvanized steel chain link fencing be replaced by a new black color ornament and security type fence that has been used in the past at the Columbus Pumping Station and Electrical Building located on the north side of the Byrd Park Tanks. Details

6. ***Condition No. 6: That the applicant confirm if this project is eligible for a 1% allocation for public art, and if so, that the applicant include public art.*** The applicant has reviewed Ordinance No. 2018-205, Public Art Master Plan to see if the Byrd Park Water Storage Facility is considered to be a public building or pedestrian-oriented open space that would qualify to be included in the Public Art Master Plan, and it has been determined the tanks are not considered to be a public building or pedestrian-oriented open space and public art is not conducive to this location and doesn't further the goals of the public art master plan.

e. Master Plan

The City of Richmond's Master Plan, Richmond 300, states that "landmark parks, such as the James River Park System, Byrd Park, and Jefferson Park, are lush, beautiful environments for Richmonders to experience nature. Parks, trees, and vegetation help beautify Richmond and should be preserved and enhanced" (page 216).

f. Urban Design Guidelines

The Public Park section of the Urban Design Guidelines notes that "*public parks are integral to the quality of life found in any urban landscape. Parks should respond to the environment in which they are located and should be designed in accordance with their intended use*" (page 9).

The Guidelines note that landscape plans should "*include diverse plant species, including evergreen, flowering and shade tree species combined with shrubs, ground covers and annual and perennial plantings" and that "shade trees for*

pedestrian comfort should be the predominant plant material in an urban setting" (page 10).

The Public Facilities section of the Urban Design Guidelines notes that "*Green building practices, which minimize the environmental impact of buildings both in the construction phase and throughout the life of the building, should be considered in the construction of new public facilities as well as in the adaptation of existing public facilities. In general, public facilities should be designed to promote street activity and interaction with surrounding uses" (page 13). It also states that "building materials should be aesthetically and structurally durable, of high quality, and require little maintenance. Where appropriate, substances which resist graffiti should be applied to building materials to reduce maintenance requirements*" (page 17).

Lastly, the Guidelines state that "*lighting and landscaping should allow for surveillance and policing activities, but should be designed primarily to accommodate the intended use of the park*" (page 9).