



To: Planning Commission
From: Urban Design Committee
Date: March 21, 2016
RE: **Final Location, Character and Extent review of a screen and grit building at the Wastewater Treatment Facility, 1400 Brander Street; UDC No. 2016-07**

I. APPLICANTS

Robert Stone, Department of Public Utilities

II. LOCATION

City Wastewater Treatment Facility, 1400 Brander Street

Property Owner:

City of Richmond Public Utilities

III. PURPOSE

The application is for conceptual location, character and extent review of a screen and grit building at the Wastewater Treatment Facility at 1400 Brander Street.

IV. SUMMARY & RECOMMENDATION

The City of Richmond's wastewater collection system consists of a combined sewer system and a separated sewer system. The combined sewer system conveys both sanitary sewage and stormwater runoff to the treatment plant. In the occurrence of a peak storm event, the combined system discharges flow into the James River at previously constructed combined sewer overflow (CSO) control structures. In 2005 the State Water Control Board issued the City a Special Order for Phase III CSO Controls. The Special Order required the City to implement Special Order No. 14 (UV disinfection of primary effluent) and Special Order No. 15 (screen and grit facility). The Phase III CSO Control improvements, including those required under Special Order Requirement No. 14 and No. 15, serve to further increase the volume of CSO captured, conveyed to the treatment plant, and disinfected prior to discharge to the James River.

This project involves the construction of a new screen and grit facility at the Wastewater Treatment Plant. This facility is the first line of treatment in the wastewater treatment process and removes large debris and grit from the wastewater. The Committee found that the proposed building design and materials are consistent with the other buildings at wastewater treatment plant. They further found the proposal to be consistent with the recommendations of the Master Plan and the Urban Design Guidelines, and notes that the wastewater treatment plant is not open to the public. Therefore, the Urban Design Committee recommend that the Planning Commission grant final approval as submitted as part of the consent agenda as part of the consent agenda.

Staff Contact:

Kathleen Onufer, (804) 646-5207

V. FINDINGS OF FACT

a. Site Description and Surrounding Context

The City Wastewater Treatment Facility is located on a 155.5 acre property at 1400 Brander Street and lies within the M-2 (Heavy Industrial) zoning district. The western edge of the property abuts Interstate 95, and the southeastern portion of the site abuts the James River. The remainder of the eastern edge of the property abuts Ancarrow's Landing, a segment of the City's James River Park system provides a boat launch, fishing areas, the trailhead for Richmond Slave Trail, open lawn space, and parking areas. To the south of the subject property are quarries and other heavy industrial uses. All of the surrounding uses are also located in the M-2 zoning district.

b. Scope of Review

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

c. UDC Review History

The UDC recommended approval and Planning Commission approved the conceptual design of this project at subsequent December 2015 meetings with no considerations.

Construction of this wastewater treatment facility began in 1950. The wastewater treatment plant has grown and experienced several periods of expansion. The most extensive of these periods occurred in 1978, 1983, and 1999. The most recent expansion, in 2007, was in response to state legislation requiring a decrease in the concentrations of nitrogen and phosphorus discharged to the James River. This single treatment plant is responsible for providing service to hundreds of thousands of customers in the Richmond metro area. In 2010, plans were approved for a two-story gallery access building associated with new final sedimentation tanks.

d. Project Description

This project involves the construction of a new screen and grit facility at the Wastewater Treatment Plant. The City of Richmond's wastewater collection system consists of a combined sewer system and a separated sewer system. The combined sewer system conveys both sanitary sewage and stormwater runoff to the treatment plant. In the occurrence of a peak storm event, the combined system discharges flow into the James River at previously constructed combined sewer overflow (CSO) control structures.

In 2005 the State Water Control Board issued the City a Special Order for Phase III CSO Controls. The Special Order required the City to implement Special Order No. 14 (UV disinfection of primary effluent) and Special Order No. 15 (screenings and grit facility). The Phase III CSO Control improvements, including those required under Special Order Requirement No. 14 and No. 15, serve to further increase the volume of CSO captured, conveyed to the treatment plant, and disinfected prior to discharge to the James River. Improvements completed to satisfy Special Order No. 14 will include equipment being installed in existing buildings, structures or tanks at the wastewater treatment plant and are not subject to UDC review.

The Special Order No. 15 project entails the construction of a new screen and grit facility. This facility is the first line of treatment in the wastewater treatment process and removes large debris and grit from the wastewater. The new screen and grit facility will be placed where the existing temporary construction manager's office, the City's collection personnel building and a parking lot are currently located. The aforementioned buildings are both modular and will be relocated on the plant site. At the end of construction the existing secondary screen and grit facility, located just to the south of where the new facility will be sit, will be demolished. A parking area will be constructed on the site of the old screen and grit building to replace the parking area on which the new facility will be constructed. This parking area is designed to include permeable pavers and LED lighting. Plantings in the landscaping plan include inkberry holly, aaronsbeard, luyken lauren, southern magnolia, amur maple, sedge grass, riverbirch, Virginia sweetspire, red maple, and Japanese maple. Other site improvements, including access roads and curbs, line up with and match existing materials.

The new 24,395 square feet screen and grit building will be three stories in height and composed primarily of brick. Skylights will be provided in the roof to allow natural light to penetrate the building and also to allow cranes to remove and replace machinery. The control room on the second floor will contain windows, and rooftop mechanicals and odor scrubber towers located to the southeast of the building will be concealed by bronze-colored louvered screens. The building will sit atop new access roads that allow for trucks to remove the dumpsters into which the screened refuse is collected.

The projected budget for the construction of the screen and grit facility, site work and equipment is \$23,000,000. Design of the facility is expected to be complete by September 2016, and construction is expected to be complete by December 2018.

e. Master Plan

The subject property is located within the Old South planning district as defined by the citywide Master Plan. The Plan places the subject area in the Industrial land use category, with primary uses including a wide variety of manufacturing, processing, research and development, warehousing, distribution and service uses (page 135). The Public Facilities and Services portion of the Plan lists several Policies and Strategies, including to "protect the environment through regulatory compliance and proactive management" and to "continue to reduce the amount of overflow of storm water and sewage into the James River through improvements to the conveyance system and sewage treatment facilities" (page 93).

f. Urban Design Guidelines

In general, the Urban Design Guidelines note that "the quality, design, and condition of all public facilities sets the image of the City, and sends a message about the values placed upon the services provided" (page 13). The Guidelines also note that building materials "should be appropriate for the size and architectural style of the building" and that "many different materials on a single building lead to visual confusion and should be avoided" (page 17). Building materials should also be "aesthetically and structurally durable, of high quality, and require little maintenance" (page 17).

The subsection on materials continues to say that “building textures and their combinations should add continuity and not conflict or detract from each other” and that “textures should be appropriate for the size, proportion and architectural style of the building and its surroundings” (page 17). Referring to building colors, that Guidelines note that they “should be coordinated and compatible with each other and with adjacent buildings” (page 17). The Guidelines also state that “windows, projecting cornices, and architectural details, such as decorative masonry bands in an accent color, may be used to break up flat building planes” (page 19).

VII. ATTACHMENTS

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