

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION



d. Policy, Planning, and Sustainability Administration

MEMORANDUM

TO: District of Columbia Board of Zoning Adjustment

FROM: Samuel Zimbabwe
Associate Director

DATE: April 21, 2016

SUBJECT: BZA Case No.19287– 5004 D Street, SE (Ward 7 Emergency Shelter)

APPLICATION

The District Department of General Services (the “Applicant”), requests variances from the limitation of number of stories requirement under § 400.1, the FAR requirements under § 402.4, the lot occupancy requirements under § 403.2, the rear yard requirements under § 404.1, the side yard requirements under § 405.9, and the parking requirements under § 2101.1, and a special exception from the emergency shelter requirements under § 360.1, to establish a short-term family housing facility with 35 residential dwelling units in the R-5-A District at premises 5004 D Street, SE (Square 5322, Lot 32).

SUMMARY OF DDOT REVIEW

The District Department of Transportation (DDOT) is committed to achieve an exceptional quality of life in the nation’s capital by encouraging sustainable travel practices, safer streets, and outstanding access to goods and services. As one means to achieve this vision, DDOT works through the zoning process to ensure that impacts from new developments are manageable within and take advantage of the District’s multimodal transportation network.

The purpose of DDOT’s review is to assess the potential safety and capacity impacts of the proposed action on the District’s transportation network and, as necessary, propose mitigations that are commensurate with the action. After an extensive review of the case materials submitted by the Applicant, DDOT finds:

- The Applicant is not providing vehicular access to the site;
- The Applicant is proposing a loading zone on D Street that is subject DDOT permit review;
- The Applicant expects the facility to hold a maximum of 26 staff and 116 beds;
- The on-street parking supply has the capacity to meet parking demand; and
- The site is well-served by transit.

DDOT has no objection to the requested variances and special exception.

Board of Zoning Adjustment
District of Columbia

Continued Coordination

The Applicant is expected to continue to work with DDOT outside of the Board of Zoning Adjustment process on the following matters:

- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks and lead walks, and other features within the public rights of way, are expected to be designed and built or maintained to DDOT standards.

TRANSPORTATION ANALYSIS

Site Design

Site design, which includes site access, loading, and public realm design, plays a critical role in determining a proposed action's impact on the District's infrastructure. While transportation impacts can change over time, the site design will remain constant throughout the lifespan of the proposed development, making site design a critical aspect of DDOT's development review process. Accordingly, new developments must provide a safe and welcoming pedestrian experience, enhance the public realm, and serve as positive additions to the community.

Site Access

The site is located on an unimproved lot bounded by D Street to the south and multiple dwelling units to the north, east, and west. The site will not have vehicular access, as the Applicant is proposing to close existing curb cut a D Street. Primary pedestrian access will be from D Street.

Loading

DDOT's practice is to accommodate vehicle loading in a safe and efficient manner, while at the same time preserving safety across non-vehicle modes and limiting any hindrance to traffic operations. For new developments, DDOT requires that loading take place in private space and that no back-up maneuvers occur in the public realm. This often results in loading being accessed through an alley network.

Per § 2201.1, loading facilities are not required; however, loading type activities such as trash pick-up and food deliveries are proposed to occur along D Street up to seven times per day. The Applicant proposes to convert 40-feet of curb space along D Street into a loading zone, which is subject to approval through DDOT's permitting process.

Trip Generation

Residential trip generation estimates were developed using Institute of Transportation Engineers (ITE) Land Use Code 220 (Apartments). Given that the staff uses do not follow ITE land uses, staff trip generation estimates were developed using information provided by the Applicant. DDOT finds this method to be appropriate for this project.

Each trip a person makes is made by a certain means of travel, such as vehicle, bicycle, walking, etc. The means of travel is referred to as a 'mode' of transportation. A variety of elements impact the mode of travel, including density of development, diversity of land use, design of the public realm, availability and cost of parking, among many others.

To inform trip and mode split assumptions, the Applicant provided additional information based on existing policies and observations:

- Residents are not allowed to park vehicles on-site and the number of residents who own vehicles is negligible;
- Children enrolled in DC Public Schools (DCPS) are eligible for DC One Card, which allows students to ride transit free;
- Adult residents will continue to be eligible for Metrorail/ Metrobus subsidies (SmarTrip cards) to assist with transit expenses; and
- Residents are not allowed to store bicycles on-site and staff is unaware of residents that own bicycles.

The Applicant developed the following mode split assumptions informed by census data, WMATA Ridership Survey information, current observed operations and policies, and parking availability.

User Group	Mode Split			
	Auto	Transit	Bike	Walk
Residential	<1%	90%	0%	10%
Staff	70%	22%	5%	3%

Figure 1 - Mode Split (Source: Gorove/Slade)

Based on the trip generation and mode split assumptions discussed above, the Applicant estimated the following level of weekday peak hour trip generation:

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr	0 veh/hr
Transit	5 ppl/hr	17 ppl/hr	22 ppl/hr	24 ppl/hr	14 ppl/hr	38 ppl/hr
Bike	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr

Figure 2 – Residential Trip Generation Summary (Source: Gorove/Slade)

Mode	Morning Shift Change (6:45-7:45AM)			Afternoon Shift Change (2:45-3:45PM)			Night Shift Change (10:45-11:45PM)		
	In	Out	Total	In	Out	Total	In	Out	Total
Auto	12 veh/hr	8 veh/hr	20 veh/hr	11 veh/hr	12 veh/hr	23 veh/hr	8 veh/hr	11 veh/hr	19 veh/hr
Transit	3 ppl/hr	2 ppl/hr	5 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr

Figure 3 - Staff Trip Generation Summary (Source: Gorove/Slade)

Peak hour for staff trip generation is based on staff shift changes which occur at 7:00am, 3:00pm, and 11:00pm, as these hours are when the most vehicular trips are expected to be generated by staff use. Figure 3 shows that 8 vehicular trips are expected to generate during the AM peak direction, 12 vehicular trips are expected to generate in the afternoon peak direction, and 11 vehicular trips are expected to be generated in the PM peak direction.

DDOT guidance suggests that a Comprehensive Transportation Review (CTR) be completed if various thresholds for added traffic are met, which could signify the potential for impacts to the surrounding street network. Based on this project's anticipated level of trip generation, a comprehensive vehicle traffic analysis is not required, as thresholds are not met and impacts to the surrounding vehicle network are expected to be minimal. However, the Applicant conducted a vehicle parking occupancy study, which met DDOT's parameters and is consistent with the scale of the action.

Off-Street Vehicle Parking

The overall parking demand created by the development is primarily a function of land use, development square footage, and price/supply of parking spaces. However, in urban areas, other factors contribute to the demand for parking, such as the availability of high quality transit, frequency of transit service, and proximity to transit.

Per § 2101.1 parking requirements for community-based residential facilities with 16 or more housed persons is determined by the BZA. The Applicant is not providing off-street parking and is seeking full relief from the off-street parking requirements. Based on the information provided by the Applicant, the facility will have 22 to 27 staff on-site during peak staffing times. Given the mode split assumptions discussed above and the Applicant's policy of not allowing residents to park on-site, DDOT estimates that approximately 19 parking spaces will be in demand for staff use.

The Applicant performed a parking occupancy study on Wednesday, May 24, 2016, at hourly intervals from 5:00pm to 11:00pm, to determine if the surrounding street network has the capacity to meet parking demand for 19 spaces. The study was conducted within a 600 to 800-foot walkshed of the site and found that during 10:00pm to 11:00pm when peak occupancy was observed, there are approximately 235 available on-street parking spaces out of 389 spaces. The study concluded that the on-street parking supply has the capacity to meet parking demands generated by the staff use.

Parking occupancy was studied during the evening when parking is in higher demand by residents. DDOT expects higher parking availability during the morning and afternoon. As such, DDOT finds parking supply should be appropriate to meet demand.



Figure 4: Weekday Evening Peak Parking Utilization (Source: Gorove/Slade)

Transit Service

The District and Washington Metropolitan Area Transit Authority (WMATA) have partnered to provide extensive public transit service in the District of Columbia. DDOT's vision is to leverage this investment to increase the share of non-automotive travel modes so that economic development opportunities increase with minimal infrastructure investment.

The site is located approximately 0.8 miles, roughly a 15-minute walk, from the Benning Rd Metro Station, which serves the Blue and Silver lines. The Blue line operates at 12-minute headways throughout the day and the Silver line operates at six-minute headways during morning and evening rush hours and at 12-minute headways during the afternoon. The Blue and Silver lines provide service to Downtown, Washington, DC and connection to the Red line at Metro Center Station, and the Green and Yellow lines at L'Enfant Plaza Station.

The site is well served by Metrobus along D Street, Benning Road, and East Capitol Street. Specifically bus stops near the site include:

- D Street and 51st Street (.1 mile from the site, 15-30 minute headways)
 - U5, U6 – Mayfair and Marshall Heights Line
- Benning Road and F Street (.3 mile from the site, 10-30 minute headways)
 - E32 – Eastern High School Line
 - U8 – Capitol Heights-Benning Heights Line
 - W4 – Deanwood-Alabama Avenue Line
- East Capitol and 52nd Street (.6-mile from the site, 15-30 minute headway)
 - 96, 97– East Capitol Street-Cardoza Line

Pedestrian Facilities

The District is committed to enhance the pedestrian accessibility by ensuring consistent investment in pedestrian infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including pedestrian trips.

The Applicant performed a detailed inventory of the existing sidewalk conditions surrounding the site and showed that the sidewalk adjacent to the site does not meet DDOT standards due to the lack of tree boxes. DDOT finds this condition acceptable due to site constraints and the installation of tree boxes encroaching on the 4-foot pedestrian clear path requirement to meet ADA standards.

Bicycle Facilities

The District is committed to enhancing bicycle access by ensuring consistent investment in bicycle infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including bicycling trips.

To serve bicycling needs, the Applicant proposes to provide five secure long-term bicycle parking spaces and four short-term bicycle racks located in public space. The location of the short-term bicycle racks will be determined during the public space permitting process.

Streetscape and the Public Realm

In line with District policy and practice, any substantial new building development or renovation is expected to rehabilitate streetscape infrastructure between the curb and the property lines. This includes curb and gutter, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site. As part of this process, the Applicant must work closely with DDOT to ensure that the design of the public realm meets current standards and will substantially upgrade the appearance and functionality of the streetscape for public users needing to access the property or circulating around it. The Applicant may refer to the District of Columbia Municipal Regulations and DDOT's Design and Engineering Manual for specific controls of public space.

DDOT's lack of objection to these zoning variances and exception should not be viewed as an approval of public space elements. If any portion of the project has elements in the public space requiring approval, the Applicant is required to pursue a public space permit through DDOT's permitting process. The Applicant may refer to the District of Columbia Municipal Regulations and DDOT's Design and Engineering Manual for specific controls of public space. A summary can be found in the Public Realm Design Manual.

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