

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION



d. Policy Planning and Sustainability Administration

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Sam Zimbabwe *82*
Associate Director

DATE: December 5, 2012

SUBJECT: BZA Case No. 18465 – St. Patrick’s Episcopal Day School – 4700 Whitehaven Parkway N.W.

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APPLICATION

St. Patrick’s Episcopal Day School (the “Applicant”) seeks a special exception to allow an increase in the number of private school and child development center students from 440 to 485 students under sections 205 and 206, in the R-1-B and D/R-1-B Districts at premises 4700 Whitehaven Parkway, N.W. (Square 1372, Lot 817 and Square 1374, Lots 857). No increases in the current faculty and staff cap of 105 are proposed.

SUMMARY AND RECOMMENDATION

The District Department of Transportation (DDOT) reviewed the Traffic Impact Study (TIS) submitted by the Applicant and generally agrees with the assumptions and methodology used in the analysis. DDOT expects that the approval of the special exception will have minimal impact to the surrounding transportation network provided that the Applicant completes the following five supporting measures:

1. Close the middle unused curb cut on the Whitehaven Parkway lay-by;
2. Close the pedestrian curb cut on the Whitehaven Parkway lay-by;
3. Construct the missing sidewalk gap on the south side of Whitehaven Parkway;
4. Install 1-2 inverted bicycle U-racks at the main building entrance;
5. Install at least 5-6 inverted bicycle U-racks in the parking garage;

TRANSPORTATION ANALYSIS

BOARD OF ZONING ADJUSTMENT
District of Columbia

CASE NO. 18465

EXHIBIT NO. 37

DDOT is committed to achieving an exceptional quality of life in the nation’s capital by encouraging sustainable travel practices, constructing safer streets and providing outstanding access to goods and services. As one means to achieve this vision, DDOT works through the zoning process to ensure alternative modes of transportation are adequate to accommodate new travel demand while discouraging single occupancy vehicle trips. The following analysis evaluates the Applicant’s TIS to determine its accuracy and consistency with the District’s vision and goals for its transportation network.

Roadway Network, Capacity, and Operations

Based on the Scoping Agreement between DDOT and the Applicant, the following two intersections were included in the study area, along with the observed peak hours:

	<u>AM Peak Hour</u>	<u>School Peak Hour</u>	<u>PM Peak Hour</u>
Whitehaven Parkway and Foxhall Road	7:30 – 8:30	2:30 – 3:30	4:45 – 5:45
Whitehaven Parkway and Reservoir Road	8:00 – 9:00	2:30 – 3:30	5:30 – 6:30

Arrival and departure times of the school varies by the campus and grades, but generally, the arrival time is within the AM commuter peak period and the departure time is well before the PM commuter peak period.

Existing Conditions – The Whitehaven Parkway and Foxhall Road intersection operates at an acceptable Level of Service (LOS) and the Whitehaven Parkway and Reservoir Road intersection is not operating at an acceptable LOS. Although the overall intersection operations at Foxhall are acceptable, it was observed that the westbound approach to the intersection experienced increased delays during the weekday AM peak hour.

Build-out Conditions - The proposed increase of 45 students is expected to generate 26 new trips in the AM, 14 in the school peak, and 8 trips in the PM peak hour. The Applicant provided vehicle occupancy counts and average occupancy rates based on recent data collection, along with field-measured modal split of arrivals. Based on the modal split information, it was observed that approximately 98% of the students are driven, and the remainder either bicycle or walk to school. Average vehicle occupancy rate was demonstrated to be approximately 1.71 students per vehicle during the AM peak.

The following Table summarizes the results of capacity analyses:

Lane Group	EXISTING CONDITIONS			BACKGROUND CONDITIONS			BUILD-OUT CONDITIONS		
	AM Peak	PM Peak (School)	PM Peak (Commuter)	AM Peak	PM Peak (School)	PM Peak (Commuter)	AM Peak	PM Peak (School)	PM Peak (Commuter)
Whitehaven Parkway and Foxhall Road									
EBLR	E	D	D	E	D	D	F	D	D
NBL	B	A	A	B	A	A	B	A	A
NBT	B	A	A	B	A	A	B	A	A
SBT	B	A	A	B	A	A	B	A	A
SBR	A	A	A	A	A	A	A	A	A

OVERALL	C	B	A	C	B	A	C	B	A
Whitehaven Parkway and Reservoir Road									
WBLR	F	D	F	F	E	F	F	E	F
SBLT	B	A	A	B	A	A	B	A	A

Summary of Capacity Analyses - The eastbound approach of the Whitehaven Parkway at its intersection with Foxhall Road is projected to operate with unacceptable level of service during the AM peak hour under the build-out conditions. The intersection of Whitehaven Parkway and Reservoir Road is projected to continue to operate at an unacceptable level of service during all three peak hours under the background and build-out conditions.

Mitigation Measures - The Applicant proposed signal timing modifications at the Whitehaven Parkway and Foxhall Road intersection in order to restore the level of service to its level under the background conditions and the installation of a signal at the non-signalized intersection of Whitehaven Parkway and Reservoir Road. DDOT concludes that the number of trips that are expected from the proposed enrollment increase and its possible impacts on the nearby signalized intersections, do not support the recommended measures.

Queuing at Intersections - Based on the Applicant’s TIS, it was determined that queue lengths along the intersection approaches are projected to be contained within the available storage capacities. However, queue lengths along Whitehaven Parkway westbound approach at its intersection with Reservoir Road were observed to block the driveways on the northern and southern side of this roadway during the PM peak hour. It is recommended that installation of signage be considered to alert the drivers to not to block driveways while queued at this intersection.

Queuing at School Driveway - Queuing analyses was performed at the School’s driveway during the drop-off and pick-up operations. Considering that there is a point control officer during both periods, the Applicant demonstrated that the existing queuing and potential increase can be managed without impeding the traffic flow along Whitehaven Parkway and adjacent intersections. DDOT recommends that the School continue to deploy a traffic control officer during the school peak hours in order to manage the drop-off and pick-up operations.

Safety

DDOT policy requires that Applicants conduct safety analyses to demonstrate that specific land developments will not create or exacerbate new or existing safety issues for all modes of travel. As part of this effort, the TIS reviewed existing school signage within the study area and found that a school speed limit sign is missing from a flashing beacon on southbound Foxhall Road immediately north of Whitehaven Parkway. A work order to replace the missing signage has been completed.

Foxhall Road was identified as a corridor with safety, operations, infrastructure, and traffic calming concerns. DDOT recently conducted a Roadway Safety Audit to address these multimodal issues. A final report is expected to be released early next year with recommendations addressing the various concerns recognized along this corridor.

Curb cuts create and increase conflict points between vehicles and other modes of transportation when they intersect a roadway. As a matter of safety policy, DDOT strives to reduce and minimize curb cuts whenever possible in order to improve multimodal access and safety. By current DDOT standards, the

site is accessed by an unusually high number of curb cuts. Currently, there are three curb cuts on the south side of Whitehaven Parkway along the lay-by providing access to the school’s pick-up and drop-off lane. As noted in the TIS, the middle curb cut is not used and is typically blocked off by cones or a vehicle. Given that this curb cut is redundant and does not provide or support an access need, DDOT requests that it be permanently closed and a planting strip restored in order to reduce conflict points and increase safety.

An unusual pedestrian curb cut was identified along the lay-by in front of the school’s main building that leads to a driveway across the street and is not associated with a crosswalk, nor is not connected to a sidewalk on either side. DDOT requests that this pedestrian curb cut be closed and that the planting strip be restored unless the Applicant can demonstrate a need for such a cut and is able to provide all of the required pedestrian safety measures to bring this into compliance with ADA and DDOT standards.

Bicycle and Pedestrian Facilities

The Applicant provided a thorough pedestrian and bicycle facilities analysis. As noted in the TIS, the school does not provide standard bicycle racks within their site and students are currently locking their bicycles on a railing. DDOT recommends that 1-2 inverted U-racks be located at the main entrance of the building, along with the installation of at least 5-6 racks in the school’s parking garage. These secured bicycle parking spaces should be easily accessible and visible to users.

Presently, a variety of sidewalks are missing within the study area and in order to support an increase in pedestrian and transit access to the school, DDOT recommends that the Applicant complete the missing sidewalk gap on the South side of Whitehaven Parkway. This missing gap will complete the south side sidewalk network on Whitehaven Parkway and complete the existing pedestrian desire line to the existing bus stops on Reservoir Road.

Transit Services

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

The TIS did not include and transit figures for staff and it is assumed given the existing mode split that students are not arriving by public transit. In the future, DDOT recommends that the Applicant strive to increase and support staff access to transit and consider providing transit benefits to employees.

Site Access and Loading

No changes are proposed to the existing site access and loading to the school. As noted in the safety section, DDOT recommends that two existing curb cuts along the south side of Whitehaven Parkway be closed in order to improve safety.

Parking

The Applicant does not propose additional parking spaces associated with the increase in the student cap.

Streetscape and Public Realm

In accordance 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.

Further coordination on the impacts to the right-of-way as proposed will need to be coordinating under our existing permitting process regarding the requested sidewalk gap and curb cut closures.

Transportation Demand Management (TDM)

TDM is a set of strategies, programs, services and physical elements that influence travel behavior by mode, frequency, time, route, or trip length in order to help achieve highly efficient and sustainable use of transportation facilities. In the District, this typically means implementing infrastructure or programs to maximize the use of mass transit, bicycle and pedestrian facilities, and reduce single occupancy vehicle trips during peak periods.

The existing Carpool Initiative program is commended, but the non-auto mode split is among the lowest observed by DDOT. It is recommended that the school consider additional TDM measures and inclusion in the Safe Routes to School program to further encourage pedestrian and bicycle access to the site. Although DDOT does not request this as a condition of approval, future student increases will necessitate specific measures be formally adopted by the school.

Performance Monitoring & Measuring

DDOT recognizes the continuing impact that developments can have on the transportation network and local community, and therefore requires the Applicant to compose a performance monitoring plan. This plan should consist of the establishment of benchmark goals with regard to TDM measures, along with a commitment to increase TDM efforts should the Applicant fail to reach these goals.

The Applicant proposes to continue their Carpool Initiative, but the non-auto mode split for the school is well below what is typically seen at other schools. DDOT recommends that the school establish goals to increase their non-auto mode split and continue to meet or exceed their average occupancy of 1.71 students per vehicle during the AM Peak.

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