GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

d. Planning and Sustainability Division

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Anna Chamberlin
Project Review Manager

DATE: November 1, 2017

SUBJECT: **BZA Case No. 19581** – 5000 14th Street NW (LAMB Charter School)

PROJECT SUMMARY

Latin American Montessori Bilingual (LAMB) Charter School (the "Applicant"), pursuant to Title 11 (2016 Zoning Regulations) of the District of Columbia Municipal Regulations (DCMR), Subtitle X, Chapter 9 requests a special exception under Subtitle U § 205.1(a), to establish a public charter school, the Latin American Montessori Bilingual Charter School (LAMB). The site is located in the R-16 Zone at 5000 14th Street NW (Square 2711, Lot 802).

The overall proposed campus in the 'ultimate' fully occupied condition would consist of:

- 600 students;
- 110 faculty/staff;
- 104 off-street vehicle parking spaces; and
- Unspecified number of long-term and short-term bicycle parking spaces.

The proposed project consists of converting an existing private school into a public charter school and includes an interim phase where both schools are cohabiting the same building. The current site consists of a private school, Kingsbury Center, which has a student enrollment of 108, ranging from kindergarten to 12th grade, and 71 staff members. LAMB is expected to start operating out of the 5000 14th Street site in autumn of 2018. During the interim period where both schools are cohabiting, the maximum number of students that will occupy the building for both Kingsbury and LAMB will be 485 and the maximum number of faculty/staff for both schools will be 116. After Kingsbury leaves the property, LAMB proposes to have a total of 600 students and 110 faculty/staff members. The existing building is not proposed to be demolished, renovated, or reconfigured with this application.

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:

Site Design

- A vehicular entrance and exit are proposed on each of 14th Street and Piney Branch Road NW;
- Loading and trash pick-up activities currently occur entirely on private property with no truck backing maneuvers in public space. The Applicant proposes to continue the current loading and trash pick-up operations with head-in and head-out maneuvers during both interim and ultimate scenarios;
- During the interim scenario in which both schools operate simultaneously, Kingsbury pick-up and drop-off operations will occur along the northern side of the building;
- During both interim and ultimate conditions, the two north-south drive aisles on the eastern side of the building are proposed for pick-up and drop-off for the LAMB School. The eastern "lower" lane will be used for parents parking and walking a child to or from the building, while the western "upper" lane will be used for parents dropping off or picking up a child at the front entrance;
- There are currently 107 vehicle parking spaces provided on-site and are not proposed to change with this application. The Applicant's CTR estimates the demand for parking in the interim and ultimate conditions to be 106 spaces and 104 spaces, respectively;
- The Applicant has not specified how many or where the short- and long-term bicycle parking spaces are proposed; and
- There are currently missing sidewalks along the southern side of Gallatin Street NW and both sides of Piney Branch Road NW. Additionally, there are missing or substandard curb ramps and missing crosswalks on 14th Street at Farragut Street NW and on Emerson Street at 15th Street NW.

Travel Assumptions

- DDOT has been involved in significant outreach efforts with the community over the last year regarding their existing neighborhood traffic concerns and has adjusted street operations in the area accordingly. DDOT plans to continue being engaged with the community in the future;
- DDOT concurs with the CTR's site traffic distribution assumptions that approximately 85% of vehicles dropping off or picking up students will utilize the 14th Street NW driveways and 15% will utilize the Piney Branch Road NW driveways;

- According to the LAMB travel survey, single occupancy vehicles account for between 70% of all trips (employees) and 81% of all trips (students in kindergarten through 2nd grade);
- There are staggered start and end times based on grade, at both the Kingsbury and LAMB schools, to spread out the parent arrival and departure times. Additionally, it is assumed that 1.6 children will arrive per car and 1.2 employees will arrive per car;
- The action is expected to generate a significant number of new vehicle trips (+475 trips during the AM peak, +261 during the PM school peak, and +164 during the PM commuter peak) under the ultimate condition; and
- The Applicant anticipates two (2) or three (3) loading activities per day (e.g., trash removal, food delivery, etc.).

Analysis

- The Applicant utilized sound methodology to perform analyses in the CTR and supplemental transportation memo;
- DDOT estimates approximately 11 long-term and 40 short-term bicycle parking spaces are required by zoning;
- The CTR projects approximately 320 feet of queuing (15 car lengths) in the drop-off/pick-up area. DDOT finds the on-site circulation and pick-up/drop-off areas are likely to be adequate for the ultimate 600-student scenario to prevent back-ups into an adjacent public street. Queuing conditions on-site will be evaluated in the performance monitoring plan annual reports, as agreed to by the Applicant, and adjustments will be made to pick-up/drop-off operations as necessary;
- The CTR and supplemental transportation memo identified three intersections which are impacted by traffic generated by the increase of students and faculty/staff at the proposed LAMB School: 16th Street and Gallatin Street NW, 14th Street and Gallatin Street NW, and 16th Street and Decatur Street NW;
- The Applicant either does not propose specific mitigation at the impacted intersections or proposes a signal timing adjustment. The Applicant should instead make improvements to neighborhood pedestrian facilities to encourage students living in the area to walk to the site and reduce traffic impacts to nearby intersections (see Mitigations section); and
- The Applicant proposes a Transportation Demand Management (TDM) plan intended to promote non-automotive trips and elicit a reduction in vehicular trips. DDOT finds it is sufficient, in conjunction with a performance monitoring plan and pedestrian network improvements (see Mitigations section), to minimize both the amount of vehicles traveling to and from the site and impacts to nearby intersections.

Mitigations

DDOT has no objection to the requested action with the following conditions:

- Fund and construct the following improvements to the pedestrian network to encourage a reduction in automobile mode share and to mitigate travel delay impacts at nearby intersections:

- A sidewalk along the southern side of Gallatin Street between Piney Branch Road NW and 14th Street NW, with new curb ramps and crosswalks, as required, as well as crosswalks specifically across Gallatin Street at both Piney Branch Road and Iowa Avenue to connect pedestrians to the existing sidewalk on the northern side;
- New curb ramps on the northern and southern sides of Emerson Street at 15th Street NW and stripe crosswalks, subject to DDOT approval; and
- Upgrades to all existing sub-standard curb ramps at the intersection of 14th Street and Farragut Street NW.

- Implement the Transportation Demand Management Plan (TDM), as proposed by the Applicant in the September 5, 2017 CTR:

Student TDM Elements

- The School will encourage carpooling and publically recognize at Peace Ceremonies any parent who regularly drives 3 or more students to school.
- The School will offer DC One Cards to all students to encourage the use of public transportation.
- Require all drop-off and pick-up activities to be within areas specifically designated on campus.
- The School will offer a parent listserv which will allow parents to find carpool matches.
- The School will coordinate bike safety/education courses for students.

Faculty/Staff TDM Elements

- The School will offer a transit benefit program to faculty and staff to encourage the use of public transportation.
- All faculty and staff who drive to school will be instructed to park on campus.
- The School will encourage carpooling and publically recognize any faculty or staff who regular drives two (2) additional faculty or staff members to school.
- All faculty/staff will be complete training on TDM procedures.

School-Wide TDM Elements

- The School will continue to work with the neighborhood through periodic public meetings to ensure any traffic concerns can be addressed in a timely manner.
- The School will assign a staff member to serve as Transportation Management Coordinator (TMC) who will be responsible for oversight of the TDM plan, adherence to driving and parking regulations, and encourage and facilitate car-pooling.
- The School will implement policies for deliveries to the campus to minimize the impact of this traffic on the neighborhood.
- The School will install outdoor bicycle parking racks to promote additional bicycle activity on-campus.
- The School will participate in the Safe Routes to School Program.

- Implement the following performance monitoring plan, as agreed to by the Applicant:
  - Submit annual summary reports to DDOT for a minimum of three consecutive years, beginning with the semester when enrollment reaches 540 students (90% of the proposed student cap);

- Vehicle trip performance targets for 600 students and 110 staff/faculty will be established as the total number of inbound vehicles projected in the September 5, 2017 CTR for the busiest morning school drop-off hour (295 trips). This target will be pro-rated based on the number of students enrolled at the time of reporting;
- Traffic summary reports will include the following, at a minimum:
  - Student enrollment and number of faculty/staff;
  - Total entering vehicle traffic counts for students, faculty, and staff at all site driveways for the busiest morning school drop-off hour;
  - Mode splits, broken down separately for students and faculty/staff, obtained by counters not travel surveys;
  - Vehicle occupancy counts;
  - Drop-off/pick-up area queue lengths and potential spill-back into public space using video counters; and
  - Documentation of any changes to TDM program from previous year, including new or innovative policies being implemented not explicitly required in the TDM Plan.
- Traffic summary reports will no longer be required to be submitted to DDOT when (1) a minimum of three years of reports have been submitted and (2) the two latest consecutive years demonstrate that the school is in compliance with the monitoring plan. If the campus is not in compliance for at least two consecutive years, then traffic summary reports will be required beyond the initial three years until at least two consecutive years are in compliance; and
- If the vehicle trip target for the busiest morning school drop-off hour is exceeded or queues are shown backing into public space, for two (2) consecutive years, then the Applicant will be required to adjust and improve the TDM program and/or pick-up/drop-off operations, gaining DDOT approval on these adjustments.

Continued Coordination

Given the complexity and size of the action, the Applicant is expected to continue to work with DDOT outside of the BZA process on the following matters:

- DDOT expects the Applicant to meet the zoning required minimum number of short- and long-term bicycle parking spaces, as determined by the Zoning Administrator. The locations of bicycle parking spaces in public space should be coordinated with DDOT;
- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks, and other features within the public rights of way, are expected to be to DDOT standards. Careful attention should continue to be paid to pedestrian and bicycle connections along the site's perimeter and adjacent infrastructure; and
- It does not appear that the Applicant is proposing any elements in public space. However, if in the future the Applicant proposes anything within the public right-of-way, a public space permit will be required. DDOT notes that the following items will also be reviewed at the time of public

space permitting: locations of short-term bicycle racks, new sidewalks (minimum 6-feet in width), and continued use of or alterations to existing curb cuts.

TRANSPORTATION ANALYSIS

DDOT requires applicants requesting an action from the Board of Zoning Adjustment (BZA) complete a Comprehensive Transportation Review (CTR) in order to determine the action's impact on the overall transportation network. Accordingly, an applicant is expected to show the existing conditions for each transportation mode affected, the proposed impact on the respective network, and any proposed mitigations, along with the effects of the mitigations on other travel modes. A CTR should be performed according to DDOT direction. The Applicant and DDOT coordinated on an agreed-upon scope for the CTR that is consistent with the scale of the action.

The review of the analysis is divided into four categories: site design, travel assumptions, analysis, and mitigations. The following review provided by DDOT evaluates the Applicant's CTR to determine its accuracy and assess the action's consistency with the District's vision for a cohesive, sustainable transportation system that delivers safe and convenient ways to move people and goods, while protecting and enhancing the natural, environmental, and cultural resources of the District.

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 and Pick-up/Drop-Off Operations

The site is bounded by Gallatin Street NW to the north, a public alley to the south, 14th Street NW to the east, and Piney Branch Road NW to the west. The school occupies nearly the entirety of this large block, necessitating vehicular access points and pedestrian and bicycle accommodations to allow access for users to and through the school campus.

Vehicle access to the Kingsbury School is currently provided via four (4) curb cuts: two along 14th Street NW (the northeast and southeast driveways) and two (2) along Piney Branch Road NW (the northwest and southwest driveways. A driveway on each road operates as inbound only and the other two driveways operate as outbound only as shown in Figure 1. The southeastern, outbound only, access point is right-out only to 14th Street NW.

Figure 1. Vehicular Site Circulation – Existing Conditions (Source: Gorove/Slade, 9/5/17 CTR, Figure 6)

As part of the interim plan, the Kingsbury and LAMB school operations will be separate and so will their pick-up and drop-off operations. The primary Kingsbury building entrance will be relocated to the northern portion of the building (see Figure 2) and pick-up and drop-off operations will occur at the northern end of the site, as shown in Figure 3. During the interim stage, LAMB building access is proposed from the existing entrance on the east side of the building and pick-up/drop-off operations along the eastern side of the site.

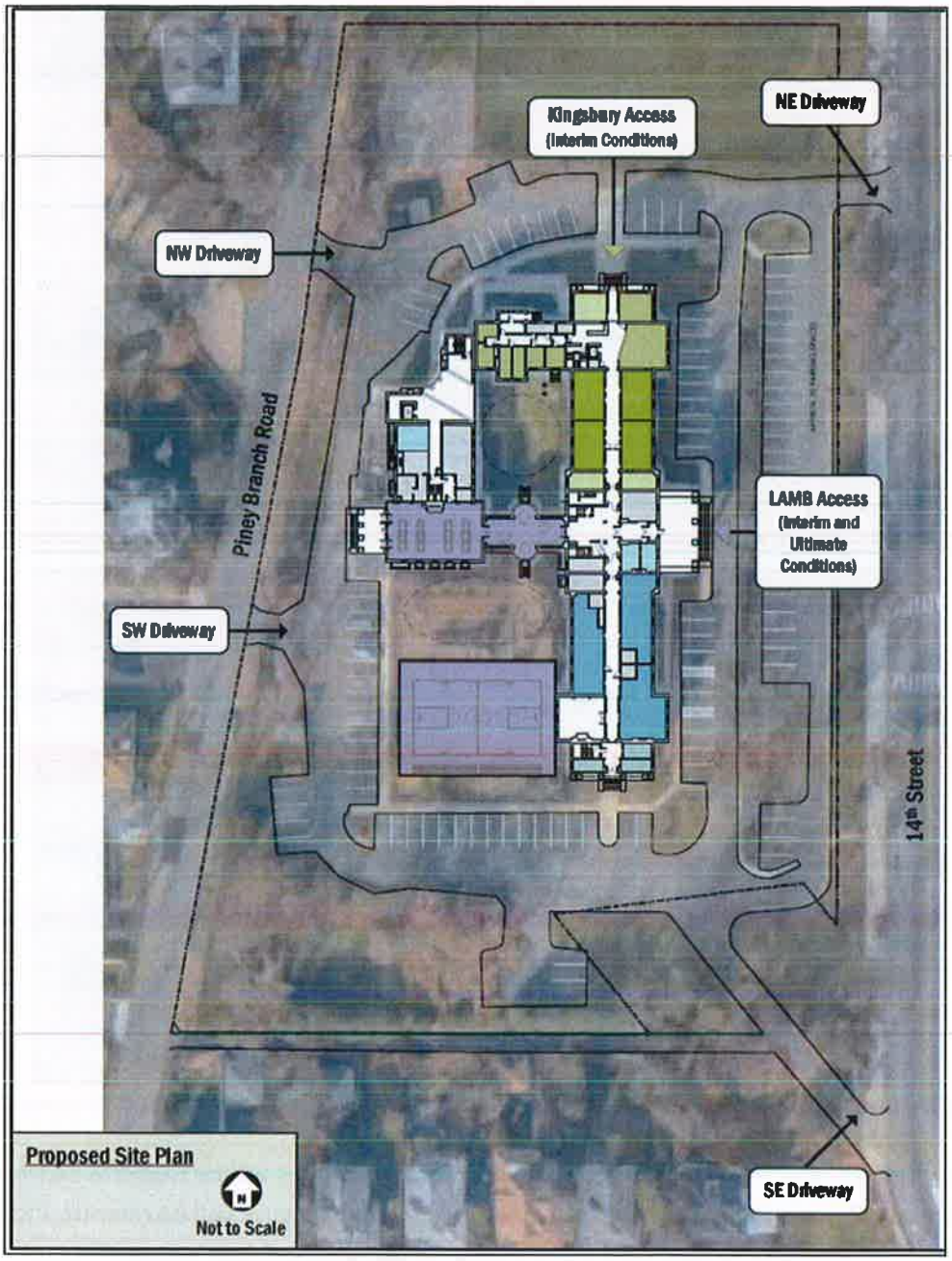

Figure 2. Proposed Site Plan (Source: Gorove/Slade, 9/5/17 CTR, Figure 5)

Figure 3. Vehicular Site Circulation – Interim Conditions (Source: Gorove/Slade, 9/5/17 CTR, Figure 7)

Under the LAMB-only ultimate condition, pick-up and drop-off operations will continue to occur within two circulation lanes along the east side of the building as shown in Figure 4. Since LAMB requires pre-kindergarten through 2nd grade students to be escorted in and out of the school by parents or a guardian, one pick-up and drop-off aisle is proposed via a row of parking (i.e., easternmost "lower lane"). Parents typically park for 10 minutes on average when picking-up and dropping-off a younger student. The westernmost drive aisle ("upper lane") is proposed as a lane where parents can pick-up or drop-off students without needing to park their vehicle.

The Applicant's Comprehensive Transportation Review (CTR) study projects that only approximately 50 feet of queuing space (2 car lengths) is necessary under existing conditions and approximately 320 feet of queuing space (15 car lengths) will be needed under ultimate conditions. This estimate is based on observations at other schools in the District of Columbia where two (2) linear feet of queuing per student driven is needed.

Figure 4. Vehicular Site Circulation – Ultimate Conditions (Source: Gorove/Slade, 9/5/17 CTR, Figure 8)

The Kingsbury school has different start and end times, varying 10-15 minutes, for the lower school, middle school, and upper school. The lower school begins classes at 8:30 AM and ends at 3:05 PM, the

middle school begins at 8:15 AM and ends at 3:15 PM, and the upper school begins at 8:05 AM and ends at 3:05 PM. The LAMB school has two start times and end times that are separated by 15 minutes. Primary school students begin at 8:30 AM and end 3:00 PM and elementary school students begin school at 8:15 AM and end at 3:15 PM. Both LAMB and Kingsbury Schools offer before and after school care, so students may arrive early for breakfast or stay later.

DDOT finds that the proposed pick-up and drop-off operations are likely adequate to serve a total of 600 students and prevent queuing into the adjacent public street network. The actual queue lengths realized by the project will be evaluated in the performance monitoring plan (see Mitigations section for specifics), as agreed to by the Applicant, and adjustments made to pick-up/drop-off operations will be made as necessary.

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 mode areas 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 the alley network, to which this building is adjacent.

Access to this property for loading and unloading, delivery and trash pick-up is an important consideration, and DDOT expects the Applicant to comply with DDOT's standards for loading. This site is not served by a public alley so access for commercial and trash trucks is proposed from the northeast driveway along 14th Street NW and loading activities will occur entirely on private property with head-in and head-out maneuvers, as they do presently. The CTR noted that the Applicant anticipates two (2) or three (3) loading activities per day (e.g., trash removal, food delivery, etc.). DDOT finds the Applicant's proposed loading scheme to be appropriate for the size and type of development.

Streetscape and 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 gutters, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site.

The Applicant must work closely with DDOT and the Office of Planning 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 circulate around it. In conjunction with the District of Columbia Municipal Regulations, DDOT's recently released 2017 *Design and Engineering Manual (DEM)* will serve as the main public realm references for the Applicant. DDOT staff will be available to provide additional guidance during the public space permitting process, if applicable.

DDOT notes that continued use of the existing curb cuts, placement of any zoning-required short-term bicycle racks, and installation of new sidewalks and curb ramps will require a public space permit. DDOT recommends that the Applicant narrow the existing southern site curb cut (Iowa Avenue) on 14th Street

NW to meet DDOT's standards. Additionally, the requested sidewalk on the southern side of Gallatin Street NW should be a minimum of 6-feet wide.

Travel Assumptions

The purpose of the CTR is to inform DDOT's review of a proposed action's impacts on the District's transportation network. To that end, selecting reasonable and defensible travel assumptions is critical to developing a realistic analysis. The Applicant submitted a CTR (dated September 5, 2017) as well as a supplemental transportation memo (dated September 29, 2017) which both used sound methodologies to perform the analysis.

Background Developments and Regional Growth

As part of the analysis of future conditions, DDOT requires applicants to account for future growth in traffic on the network or what is referred to as background growth. The Applicant coordinated with DDOT on the appropriate background developments to include in the analysis. Generally, only projects that were both approved and included an origin or destination in proximity to the study area are included in the analysis. There were no nearby pipeline developments identified in the vicinity of the site.

DDOT also requires applicants account for regional growth. This can be done by assuming a general growth rate or by evaluating growth patterns forecast in MWCOG's regional travel demand model. The Applicant coordinated with DDOT on an appropriate measure to account for regional growth based on historic growth rates that accurately accounted for regional growth. A growth rate of 0.50% per year was applied to existing through volumes on 16th Street NW and 0.25% to through volumes on all streets within the study area.

Vehicular Parking

Currently there are 107 vehicle parking spaces provided on-site and will not change during either the interim or ultimate conditions. During the interim condition, the CTR estimates a demand for approximately 106 spaces. Of which, 21 spaces will be used for faculty, 29 for pick-up and drop-off operations, and 56 for staff and faculty. During the ultimate condition, LAMB will have 64 faculty and staff spaces and 40 pick-up and drop-off spaces for a total vehicle parking demand of 104 spaces. The 40 pick-up and drop-off spaces are proposed to be used for visitor parking during the day.

It is DDOT's understand that Subtitle C § 701.5 of the Zoning Regulations requires a total of 77 vehicular parking spaces (2 for each 3 faculty/staff) for public schools. DDOT defers to the Zoning Administrator on the exact number of spaces the Applicant is required to provide.

Trip Generation

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.

The Applicant collected existing vehicular trip data at the Kingsbury Center site driveways on Tuesday, June 6, 2017. Vehicle trip generation rates for both students and staff/faculty were developed based on the driveway counts and then applied to the expanded number of students and staff/faculty for Kingsbury portion of the project in the interim scenario. Since driveway counts do not exist for the LAMB portion of the project, travel survey data for students and staff/faculty from other LAMB sites was used in the first step of trip generation, as shown below in Figure 5.

Mode Split	Vehicle	Passenger in car that parks*	Transit	Walk	Bike
Student (PK3-2nd Grade)	81%	4%	8%	4%	3%
Student (3rd – 5th Grade)	71%	4%	15%	6%	4%
Employee	70%	--	20%	5%	5%
*Represents students that have faculty member parents who drive					

Figure 5. LAMB School Travel Survey Results (Source: Gorove/Slade, 9/5/17 CTR, Table 2)

After these mode splits were applied to the anticipated number of students and employees for the LAMB portion of the project in the interim and ultimate scenarios, trip generation estimates were adjusted to account for multiple people in cars (1.6 students/car, 1.2 employees/car). Additionally, another adjustment was made to account for the amount of traffic arriving in the peak hour of adjacent traffic (73% of AM employees, 77% of AM students). Existing and proposed vehicle trip generation for the site is shown in Figure 6.

Scenario	# Students	# Staff/Faculty	AM Peak Hour			PM School Peak			PM Commuter Peak		
			Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Existing 2017	108 Kingsbury	71 Kingsbury	48	25	73	17	42	59	3	6	9
Interim 2020	175 Kingsbury 310 LAMB	80 Kingsbury 36 LAMB	214	173	387	114	140	254	42	58	100
Ultimate 2025	600 LAMB	110 LAMB	295	252	548	163	157	320	67	106	173
Net Change (2017 vs 2025)	+492	+39	+247	+227	+475	+146	+115	+261	+64	+100	+164

Figure 6. Vehicular Trip Generation Summary (Source: Gorove/Slade, 9/5/17 CTR, Tables 1, 3, 4, 5, 6)

As shown above, the addition of 492 students and 39 staff/faculty at the Kingsbury Center site is anticipated to generate an additional 475 morning commuter peak hour vehicle trips, 261 afternoon peak hour vehicle trips, and 164 evening commuter peak hour vehicle trips. DDOT recommends a performance monitoring plan be implemented to ensure that the amount of traffic generated by the site does not exceed the amount of trip generation projected in the September 5, 2017 CTR (and shown in Figure 6 above).

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 16 intersections where detailed vehicle, bicycle, and pedestrian counts would be conducted and a level of service analysis would be performed. These

intersections are immediately adjacent to the site and include intersections radially outward from the site that have the greatest potential to see moderate to significant increases in vehicle delay. DDOT acknowledges that not all affected intersections are included in the study area and there will be intersections outside of the study area which realize new trips. However, DDOT expects minimal to no increase in delay outside the study area as a result of the proposed action. The study area intersections are shown in Figure 7. Note that the Applicant submitted a supplemental transportation memo (dated September 29, 2017) including analysis of four intersections (shown in blue below) in addition to the 12 intersections that were studied in the originally submitted 9/5/17 CTR (shown in yellow).

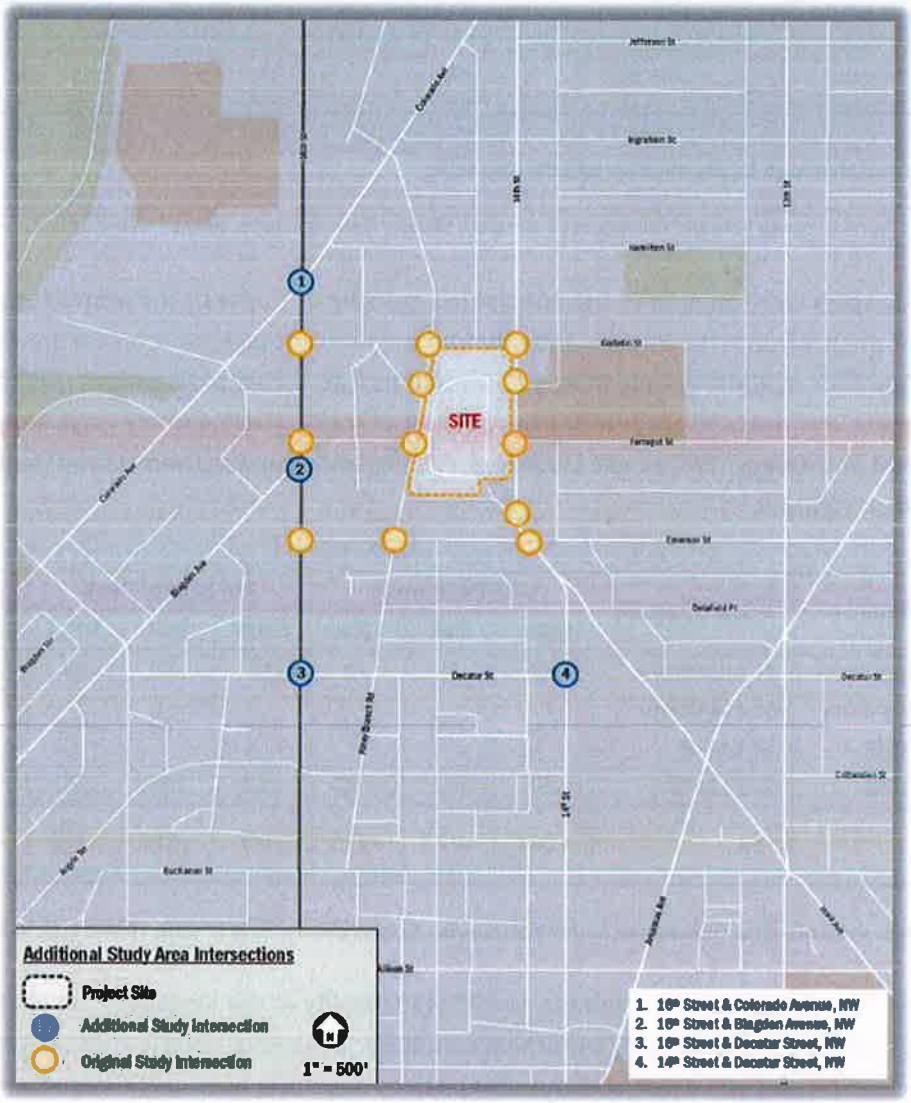

Figure 7. Study Area Intersections (Source: Gorove/Slade, 9/29/17 Memo, Figure 1)

Analysis

To determine the action's impacts on the transportation network, a CTR includes an extensive multi-modal analysis of the existing baseline conditions, future conditions, and future conditions with the

proposed action and mitigations. The Applicant completed their analysis based on the assumptions described above.

Roadway Capacity and Operations

DDOT aims to provide a safe and efficient roadway network that provides for the timely movement of people, goods and services. As part of the evaluation of travel demand generated by the site, DDOT requests analysis of traffic conditions for the agreed upon study intersections for the current year and after the facility opens both with and without the site development or any transportation changes. For this development, five traffic scenarios were assumed for capacity analysis. These scenarios include:

- 2017 Existing Conditions
- 2020 Future Conditions without the development (2020 Background Conditions)
- 2020 Future Conditions with the Interim Conditions (2020 Interim Future Conditions)
- 2025 Future Conditions with the Interim Conditions (2025 Background Conditions)
- 2025 Future Conditions with the development (2025 Total Future Conditions)

It was assumed that by the 2020 Background scenario, DDOT will have converted Emerson Street NW from a two-way street to one-way westbound between 13th and 14th Streets and one-way eastbound between 14th and 16th Streets NW, as a result of the 16th Street Heights Neighborhood Traffic Study conducted in 2016 to address community concerns about cut-through traffic. DDOT Traffic Operations and Safety Division (TOSD) has been involved in significant outreach efforts with the community over the last year regarding their existing neighborhood traffic concerns and plans to continue being engaged with the community in the future.

Analysis provided in the CTR shows that vehicles generated by this action will impact the operations of three intersections in the study area as measured by Level of Service (LOS). The following intersections are impacted by site-generated trips:

16th Street and Gallatin Street NW – the westbound approach is projected to operate at LOS F during all three peak hours under Background 2020 Conditions and will suffer worse delays under Total Future 2025 conditions. As mitigation, the CTR evaluated the appropriateness of installing a traffic signal and determined that a signal would not be warranted. Instead the CTR recommends DDOT continue to evaluate the operations of Gallatin Street as is relates to the Emerson Street one-way conversion project since much of the traffic on Gallatin Street will have been re-routed from Emerson Street.

14th Street and Gallatin Street NW – the eastbound and westbound approaches are projected to operate at LOS E or F during the morning commuter peak hour under Background 2020 conditions. These movements are projected to worsen significantly during the morning commuter peak hour and degrade the eastbound approach from LOS D to F under Total Future 2025 conditions. Additionally the eastbound approach is projected to have significantly longer vehicular queues during the morning commuter peak hour under Total Future 2025 conditions as compared to Background 2020 conditions. The CTR recommends a signal timing adjustment at this intersection to improve LOS.

16th Street and Decatur Street NW – the westbound approach degrades from LOS D under Background 2020 conditions to LOS E under Total Future 2025 Conditions. The supplemental transportation memo does not recommend any mitigation for this intersection.

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 1.1 miles from the Georgia Avenue-Petworth Metrorail Station which is served by the Green and Yellow Lines and 1.8 miles from the Fort Totten Metrorail station which is served by the Green, Yellow, and Red Lines. The site is also well-served by bus stops within one-quarter mile of the site: S1, S2, S4, S9, 52, 53, and 54.

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 projects to serve the needs of all trips they generate, including pedestrian trips. Walking is expected to be an important mode of transportation for the school.

The Applicant performed an inventory of the pedestrian infrastructure in the vicinity and noted any substandard conditions. As shown below in Figure 8, there are several missing segments of sidewalk surrounding the site, particularly along Gallatin Street, Piney Branch, and Iowa Avenue NW. Additionally, there are missing or substandard curb ramps in several critical locations.

Sidewalks are not presently constructed along Piney Branch Road NW between Gallatin Street NW and Emerson Street NW due to right-of-way constraints. Currently, Piney Branch Road has approximately 25 feet of pavement within a 35-foot right-of-way including several fences and utility poles installed near the edge of pavement.

DDOT recommends the Applicant make the following improvements to the network to ensure and encourage safe pedestrian travel to the site:

- Fund and construct a sidewalk along the southern side of Gallatin Street between Piney Branch Road NW and 14th Street NW, with new curb ramps and crosswalks, as required, as well as crosswalks specifically across Gallatin Street at both Piney Branch Road and Iowa Avenue to connect pedestrians to the existing sidewalk on the northern side;
- Fund and construct new curb ramps on the northern and southern sides of Emerson Street at 15th Street NW and stripe crosswalks, subject to DDOT approval; and
- Fund and construct upgrades to all existing sub-standard curb ramps at the intersection of 14th Street and Farragut Street NW.

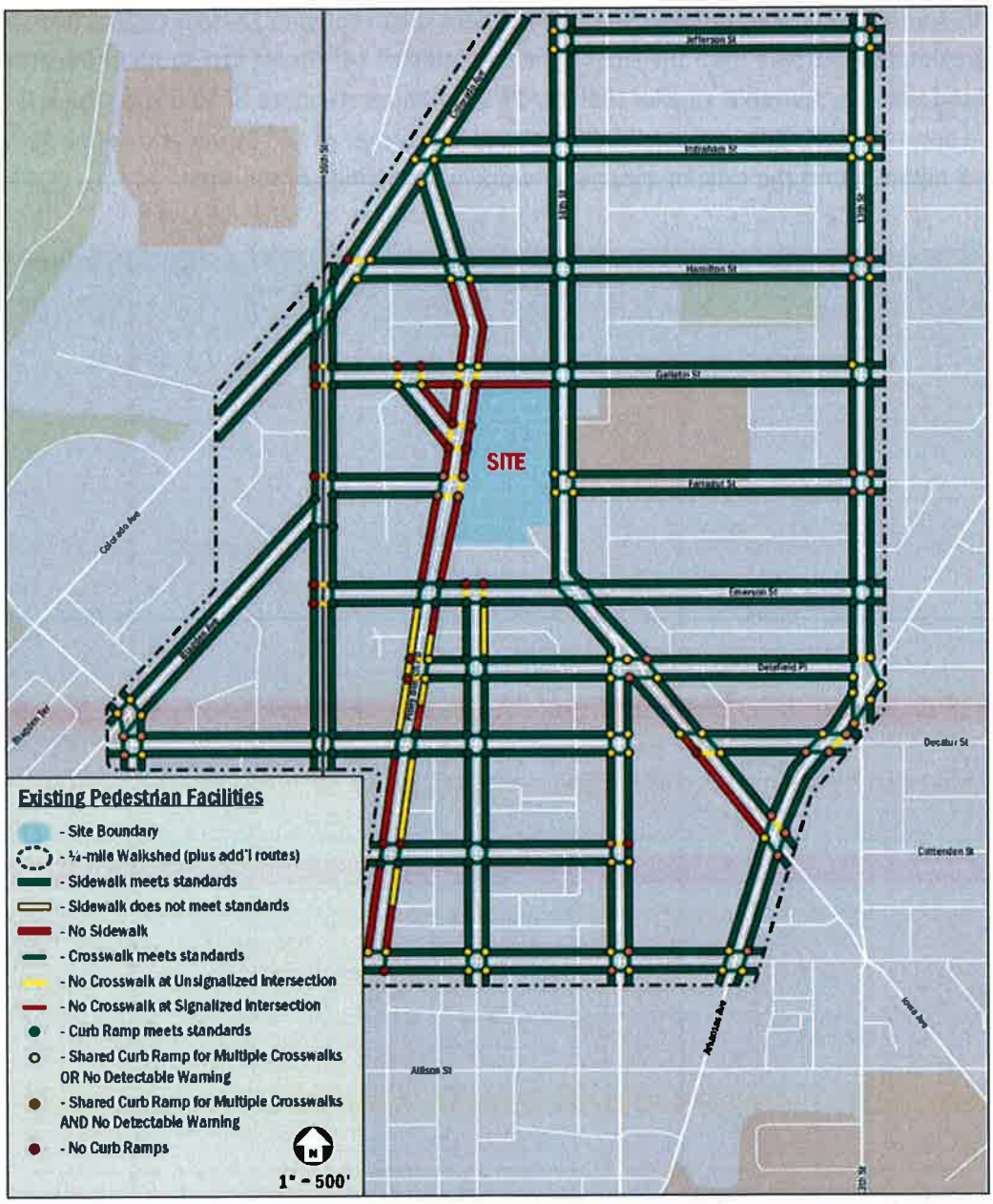

Figure 8. Existing Pedestrian Facilities (Source: Gorove/Slade, 9/5/17 CTR, Figure 26)

Bicycle Facilities

For a school of approximately 80,000 SF (172,822 SF lot at a 0.46 FAR), Subtitle C § 802.1 of the Zoning Regulations require approximately 11 long-term (1 space for each 7,500 SF) and 40 short-term (1 per 2,000 SF) bicycle parking spaces. The Applicant proposes to provide short-term bicycle parking but does not specify how many spaces. Also the Applicant is not proposing any secure long-term bicycle parking spaces. DDOT expects that the Applicant will provide the required number of both short- and long-term bicycle parking spaces, as determined by the Zoning Administrator.

The site is currently served by on-street striped bicycle lanes along 14th Street NW which provide a critical north-south connection through the District. There is currently an 11-dock Capital Bikeshare station approximately 0.2 mile from the site on the west side of 14th Street just south of Decatur Street NW. It is noted that this station is smaller than DDOT's minimum standard of 19 docks. There is a 19-dock station approximately 1/3 mile north of the site at the corner of 14th Street and Kennedy Street NW. Figure 9 below shows the existing bicycle network in the vicinity of the site.

Figure 9. Existing Bicycle Facilities (Source: Gorove/Slade, 9/5/17 CTR, Figure 27)

Safety

DDOT requires that the Applicant conduct a safety analysis to demonstrate that the site will not create new, or exacerbate existing, safety issues for all travel modes. DDOT asks for an evaluation of crashes at study area intersections as well as a sight distance analysis along the public space where there is expected to be conflicts between competing modes (e.g. crosswalks, driveway entrances, etc.). The Applicant's analysis of DDOT crash data reveals zero (0) intersections within the study area that have a crash rate of 1.0 Million Entering Vehicles (MEV) or higher.

Mitigations

As part of all major development review cases, DDOT requires the Applicant to mitigate the impacts of the development in order to positively contribute to the District's transportation network. The mitigations must sufficiently diminish the action's vehicle impact and promote non-auto travel modes. This can be done through Transportation Demand Management (TDM), physical improvements, operations, and performance monitoring.

DDOT preference is to mitigate vehicle traffic impacts first through establishing an optimal site design and operations to support efficient site circulation. When these efforts alone cannot properly mitigate an action's impact, TDM measures may be necessary to manage travel behavior to minimize impact. Only when these other options are exhausted will DDOT consider capacity-increasing changes to the transportation network because such changes often have detrimental impacts on non-auto travel and are often contrary to the District's multi-modal transportation goals.

The following analysis is a review of the Applicant's proposed mitigations and a description of DDOT's suggested conditions for inclusion in the Order.

Pedestrian Facilities

DDOT recommends the Applicant make the following improvements to the network to encourage a reduction in vehicular impact to operations at nearby intersections:

- Fund and construct a sidewalk along the southern side of Gallatin Street between Piney Branch Road NW and 14th Street NW, with new curb ramps and crosswalks, as required, as well as crosswalks specifically across Gallatin Street at both Piney Branch Road and Iowa Avenue to connect pedestrians to the existing sidewalk on the northern side;
- Fund and construct new curb ramps on the northern and southern sides of Emerson Street at 15th Street NW and stripe crosswalks, subject to DDOT approval; and
- Fund and construct upgrades to all existing sub-standard curb ramps at the intersection of 14th Street and Farragut Street NW.

Transportation Demand Management (TDM) Plan

As part of all major development review cases, DDOT requires the Applicant to produce a comprehensive TDM plan to help mitigate an action's transportation impacts. 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 Applicant's proposed TDM measures play a role in achieving the desired and expected mode split.

The specific elements within the TDM plan vary depending on the land uses, site context, proximity to transit, scale of the development, and other factors. The TDM plan must help achieve the assumed trip generation rates to ensure that an action's impacts will be properly mitigated. Failure to provide a robust TDM plan could lead to unanticipated additional vehicle trips that could negatively impact the District's transportation network.

The Applicant provided DDOT with a TDM plan included in the September 5, 2017 CTR, prepared by Gorove/Slade. The proposed TDM plan is intended to reduce potential impacts from traffic generated from pick-up and drop-off traffic at the school in both the interim and final conditions. The Applicant's proposed TDM Plan includes the following elements:

Student TDM Elements

- The School will encourage carpooling and publically recognize at Peace Ceremonies any parent who regularly drives 3 or more students to school.
- The School will offer DC One Cards to all students to encourage the use of public transportation
- Require all drop-off and pick-up activities to be within areas specifically designated on campus.
- The School will offer a parent listserv which will allow parents to find carpool matches.
- The School will coordinate bike safety/education courses for students.

Faculty/Staff TDM Elements

- The School will offer a transit benefit program to faculty and staff to encourage the use of public transportation.
- All faculty and staff who drive to school will be instructed to park on campus.
- The School will encourage carpooling and publically recognize any faculty or staff who regular drives two (2) additional faculty or staff members to school.
- All faculty/staff will be complete training on TDM procedures.

School-Wide TDM Elements

- The School will continue to work with the neighborhood through periodic public meetings to ensure any traffic concerns can be addressed in a timely manner.
- The School will assign a staff member to serve as Transportation Management Coordinator (TMC) who will be responsible for oversight of the TDM plan, adherence to driving and parking regulations, and encourage and facilitate car-pooling.
- The School will implement policies for deliveries to the campus to minimize the impact of this traffic on the neighborhood.
- The School will install outdoor bicycle parking racks to promote additional bicycle activity on-campus.

- The School will participate in the Safe Routes to School Program.

DDOT finds the Applicant's proposed TDM Plan, in conjunction with a performance monitoring plan (discussed below) and pedestrian improvements (discussed above), will be sufficient to adequately reduce the number of vehicles traveling to the site.

Performance Monitoring

The CTR provides a projection of an action's likely transportation impacts. However, in an urban environment that is rapidly developing and changing, the projections may not provide enough certainty to reveal the true future impacts of an action, particularly at the scale of this one. A performance monitoring plan provides the framework for increasing the level of certainty concerning expected impacts so that DDOT and the public can have a better idea of expected future travel conditions. A performance monitoring plan establishes thresholds for trips an action can generate, defines post-completion evaluation criteria and methodology, and establishes potential remediating measures.

In conjunction with the TDM plan proposed by the Applicant and the pedestrian network improvements recommended by DDOT, the Applicant has agreed to implement a performance monitoring plan which requires the following:

- Submit annual summary reports to DDOT for a minimum of three consecutive years, beginning with the semester when enrollment reaches 540 students (90% of the proposed student cap);
- Vehicle trip performance targets for 600 students and 110 staff/faculty will be established as the total number of inbound vehicles projected in the September 5, 2017 CTR for the busiest morning school drop-off hour (295 trips). This target will be pro-rated based on the number of students enrolled at the time of reporting;
- Traffic summary reports will include the following, at a minimum:
    - Student enrollment and number of faculty/staff;
    - Total entering vehicle traffic counts for students, faculty, and staff at all site driveways for the busiest morning school drop-off hour;
    - Mode splits, broken down separately for students and faculty/staff, obtained by counters not travel surveys;
    - Vehicle occupancy counts;
    - Drop-off/pick-up area queue lengths and potential spill-back into public space using video counters; and
    - Documentation of any changes to TDM program from previous year, including new or innovative policies being implemented not explicitly required in the TDM Plan.
- Traffic summary reports will no longer be required to be submitted to DDOT when (1) a minimum of three years of reports have been submitted and (2) the two latest consecutive years demonstrate that the school is in compliance with the monitoring plan. If the campus is not in compliance for at least two consecutive years, then traffic summary reports will be required beyond the initial three years until at least two consecutive years are in compliance; and

- If the vehicle trip target for the busiest morning school drop-off hour is exceeded or queues are shown backing into public space, for two (2) consecutive years, then the Applicant will be required to adjust and improve the TDM program and/or pick-up/drop-off operations, gaining DDOT approval on these adjustments.

AC:az