



To: Andreea Udrea, PhD, AICP
Assistant Director of Planning and Urban Design
David Nevarez, P.E., PTOE, CFM
Department of Transportation
City of Dallas

From: Jacob Halter, P.E., PTOE

Date: June 30, 2023

Subject: Traffic Management Plan Comment Response
PTAA Hillcrest School

Introduction

The City of Dallas prepared a review of the Traffic Management Plan (TMP) for the PTAA Hillcrest School. The initial TMP for the development was dated November 29, 2022, and the TMP comments were received June 23, 2023. This letter will accompany an updated TMP for the development which addresses these comments. The comments are reprinted below, accompanied by responses from Kimley-Horn. The City of Dallas comments will be in black, and the Kimley-Horn responses will be *red and italicized*.

City of Dallas Comments and Kimley-Horn Responses

1. Remove "Shelton School" from paragraph 4, page 2 in the TMP.

KH: "Shelton School" was replaced with "PTAA Hillcrest School".

2. Confirm all information listed is accurately based on information from observations in 2022.

KH: Though there was a typo in the report referring to the Shelton School, which was the previous school on the campus, the TMP uses observations made at the PTAA Hillcrest School Campus on November 15th and 16th, 2022, as the basis for its calculations.

3. Include principal signature.

KH: An authorized school administrator has signed the updated TMP.

4. Per section 51P-514.111(2), applicant is required to provide evaluation of existing midblock crosswalk on Hillcrest Road; staff recommends using Appendix A of NCHRP Report 562.

KH: No students were observed on either day of on-site visits to use the midblock crossing across Hillcrest Road. The crossing is not required for the functioning of this TMP. Whether the crossing is in compliance with the cited ordinance is outside the scope of this TMP. The only pedestrian activity observed was between the school and the neighborhood to the east, not across Hillcrest Road.

5. Provide statement acknowledging the school operator failed to comply with the require traffic study update by November 1, 2021 and a practical plan for school to comply in the future.

KH: The PTAA Hillcrest School administration plans to initiate the TMP update process at the proper time to meet the 2025 update timeline. The principal's signature block on the TMP document has been updated to include the following statement: "The school will update its traffic management plan at proper intervals to satisfy the requirements of the City of Dallas."

6. We understand there is a parking agreement on the property for shared parking with the church: It is staff opinion that the proposed zoning amendment (Z223-147), which reduces the total parking supply to 441 spaces, will not affect the remote/shared parking agreement with DBC; but since the proposed site plan (Z223-147) effectively reduces the total parking supply, both property owners should still amend the agreement with correct figures. The amendment to the remote/shared parking agreement must be handled at permitting or at any time but independently from the zoning application. Staff recommends both owners to contact their attorneys for counsel.

KH: Acknowledged. The proposed parking is projected to handle all the future school traffic on site, so the school users are not expected to need to park across the street at the church. The proposed TMP does not rely on the effects of the shared parking agreement, so any updates to the amendment should be considered outside the scope of this report.

END



Traffic Management Plan and Queueing Analysis

Pioneer Technology & Arts Academy, Hillcrest School Campus

15720 Hillcrest Road, Dallas, Texas 75248

Updated Submission: June 30, 2023

Original Submission: November 29, 2022

Introduction:

The Pioneer Technology & Arts Academy (PTAA) has operated the Hillcrest Campus, located at the northeast corner of Hillcrest Road and Arapaho Road in Dallas, Texas, since the 2020-2021 school year. Previously, The Shelton School has been in operation on the site since 1997, the year that the property was purchased from Prestonwood Baptist Church. The PTAA Hillcrest School currently has approximately 1,075 students across its lower, upper elementary, middle, and high schools. Observations of the current PTAA Hillcrest School operations were made on Tuesday, November 15th, and Wednesday, November 16th, 2022. These were standard school days with no extraordinary events on the school calendar.

A TMP for the PTAA Hillcrest School was prepared by Kimley-Horn in 2019 for the upcoming 2020-2021 school year. The PTAA Hillcrest School has implemented that TMP with some minor adjustments for their current operations. That 2021 TMP was based on the projected 1,200 students and used the previous Shelton School as a baseline. This TMP update will document the existing TMP operation, analyze a planned increase in high school attendance, and provide recommendations to accommodate a proposed Natatorium.

Existing Traffic Management Plan (TMP) Operation:

The elementary and middle schools are operating at their planned enrollment capacity, and the high school is currently operating with only half of its future predicted enrollment. The current and projected enrollment are compared in **Table 1**.

Table 1 – PTAA Hillcrest School Attendance

	Current Enrollment	Future Enrollment	Observed Arrival	Observed Dismissal
Lower School	150	150	8:00 AM	3:30 PM
Upper Elementary	350	350	8:00 AM	3:30 PM
Middle School	450	450	8:00 AM	3:45 PM
High School	125	250	8:00 AM	3:45 PM
Total	1,075	1,200		

On weekdays, the 1,075-student school operates from approximately 8:00 AM until 4:00 PM. All parental pick-up and drop-off vehicles enter from La Bolsa drive along the northern edge of the site. All vehicles use the northern portion of the parking lot queue as they are sorted into their respective entrances. There are three loading areas: the Northern Loading Area, the Central Loading Area, and the Southern Loading Area. The separate loops, loading areas, and existing pick-up and drop-off

operations are illustrated in the **Existing Traffic Management Plan Exhibit** attached to the end of this report.

Presently, traffic for the Northern Loading Area exits to Hillcrest Road on the western edge of the site. The Northern Loading Area is used by the Lower and Upper Elementary school pick-up and drop-off drivers. When the drivers using the Northern Loading Area queue back into the parking circulation, they leave enough room in the aisle for drivers for the Southern and Central Loading Areas to drive around them. The Northern Loading Area queue does not prevent the Southern and Central Loading Area drivers from reaching their queueing locations.

Traffic for the Southern and Central Loading Areas exit to Arapaho Road on the southern edge of the site. The Southern and Central Loading Area serve the Middle and High schools. The Southern Loading Area has two queueing locations. The western queue forms along the school, leaves a gap for the Central Loading Area's exiting vehicles, and then restarts in the eastern parking aisle. The eastern queue begins in the eastern row of parking across from the Southern Loading Area and continues northward. The formation of each queue is organic; there was no observed traffic coordinator directing vehicles to line up in a certain queue. The drivers seemed to choose whichever they preferred, and there were no observed problems either day of observations.

During the pick-up operation, the school staff matches the students, who wait on the sidewalk or just inside the school, with their vehicle. The queue functions smoothly and efficiently when school is dismissed. The maximum observed queues were 25 vehicles for the Southern Loading Area, 15 vehicles for the Central Loading Area, and 17 vehicles for the Northern Loading Area. Each of the areas can accommodate its queue with room to spare.

The drop-off operations for the PTAA Hillcrest Campus operate well. The maximum queue observed for any Loading Area was 6 vehicles, a fraction of the capacity of any of the three queueing areas.

At no point during the pick-up or drop-off operations were students observed crossing Hillcrest Road. The only walking students were accompanied by adults and came from and departed to the neighborhood to the east of the school.

A summary of the observations made during the current PTAA Hillcrest School pick-up operation is included in **Table 2**.

When the Southern and Central Loading Areas exit to Arapaho Road, the vehicles queue back into the school, but they do not affect the loading operations for the Southern and Central Loading Areas. The vehicles are able to exit efficiently to Arapaho Road without any assistance. The same is true for the Northern Loading Area when its drivers exit to Hillcrest Road. The queued vehicles do not significantly affect the loading operations, and the vehicles need no assistance as they efficiently turn onto Hillcrest Road. Both exiting maneuvers are right-turn only, which helps keep the delays to a minimum.

The PTAA Hillcrest School administration does not currently follow the 2021 TMP exactly as proposed; instead, they have slightly adjusted the proposed plan, and their adjustments do not cause vehicles to queue onto City right-of-way.

Table 2 – PTAA Hillcrest School Observed TMP Operation Summary

Pick-Up Queuing Summary						
Group Grades Dismissed	Observed Dismissal Time	Students Dismissed	Observed Maximum Queue	Observed Available Stacking	Observed Surplus (Deficiency)	Vehicles Queued per Student Dismissed
Northern Loading Area Lower + Upper Elementary	3:30 PM	500	17 Vehicles	47 Vehicles	30 Vehicles	1 Vehicle per 29.4 students
Central Loading Area Middle / High School	3:45 PM	287.5	15 Vehicles	32 Vehicles	17 Vehicles	1 Vehicle per 19.2 students
Southern Loading Area Middle / High School	3:45 PM	287.5	25 Vehicles	36 Vehicles	11 Vehicles	1 Vehicle per 11.5 students

Future TMP Operation and Queue Analysis:

The PTAA Hillcrest School will have the same Elementary and Middle School enrollment in the future. The High School is planned to double in the near future as the students in the lower grades reach the upper high school grades. As the upper high school grades fill, a portion of these students will drive themselves and will no longer enter the drop-off or pick-up queues. To project the future queues in this analysis, it was conservatively assumed that all of the additional high school students would need to utilize the queue and that none would drive themselves.

Before the natatorium is built, the PTAA Hillcrest School's currently operational Traffic Management Plan is not recommended to be altered. The school's drop-off and pick-up operations currently operate with excess unused queue storage space and are not close to queueing onto public right-of-way. As shown in **Table 3**, the proposed increase in high school students leaves a 20-vehicle surplus in the combined Southern and Central Loading Areas. This 20-vehicle surplus is measured from the split point between the Northern Loading Area queue and the Southern and Central Loading Area queues. The Southern and Central Loading Areas could, if needed, queue nearly all the way to La Bolsa Drive alongside the Northern Loading Area queue. Therefore, when this additional 35-vehicle queue storage space is accounted for, the Southern and Central Loading Areas have a 55-vehicle surplus of queue storage.

Table 3 – PTAA Future TMP Operation Summary

Pick-Up Queuing Summary						
Group Grades Dismissed	Dismissal Time	Students Dismissed	Maximum Queue	Available Stacking	Surplus (Deficiency)	Vehicles Queued per Student Dismissed
Northern Loading Area Lower + Upper Elementary	3:30 PM	500	17 Vehicles 425'	47 Vehicles 1,175'	30 Vehicles 750'	1 Vehicle per 29.4 students
Central Loading Area Middle / High School	3:45 PM	350	18 Vehicles 450'	32 Vehicles 800'	14 Vehicles 350'	1 Vehicle per 19.4 students
Southern Loading Area Middle / High School	3:45 PM	350	30 Vehicles 750'	36 Vehicles 900'	6 Vehicles 150'	1 Vehicle per 11.7 students
Additional Queueing Middle / High School	Additional Queueing available for the Central and Southern Queues. This distance represents the portion of the Northern Queue that can be double-stacked to provide additional queueing without interfering with the Northern Loading Area's queueing operations.			35 Vehicles 875'	35 Vehicles 875'	

Proposed TMP Operation and Queue Analysis with Natatorium:

The PTAA Hillcrest School plans to build a Natatorium in the parking lot located on the eastern side of the school at the location marked on the **Proposed (with Natatorium) Traffic Management Plan Exhibit**. The parking which is removed for the Natatorium is currently unnecessary. There were very few vehicles parked in the spaces to be removed, and the remaining parking spaces have enough capacity to handle the existing parking demands. Furthermore, the majority of the parking in the northern parking lot is currently unused and can serve as additional overflow parking.

The Natatorium will only affect the queueing for the Central Loading Area, removing its eastern queueing aisle. As shown in **Table 4**, this leaves the Central Loading Area with 500' of dedicated queueing area as opposed to the previous 800'. 500' is still able to contain the Central Loading Area projected queue length with only a single queue. If the PTAA Hillcrest School desires additional queueing capacity, the administration can set up a double stacked queue or utilize the existing additional queueing space through the northern parking lot. No adjustments are required to accommodate the projected queue for the Central Loading Area after the construction of the Natatorium.

The Southern and Northern Loading Areas are unaffected by the location of the Natatorium and also require no adjustments.

Table 4 – PTAA Projected TMP Operation Summary with Natatorium

Pick-Up Queuing Summary						
Group Grades Dismissed	Dismissal Time	Students Dismissed	Maximum Queue	Available Stacking	Surplus (Deficiency)	Vehicles Queued per Student Dismissed
Northern Loading Area Lower + Upper Elementary	3:30 PM	500	17 Vehicles 425'	47 Vehicles 1,175'	30 Vehicles 750'	1 Vehicle per 29.4 students
Central Loading Area Middle / High School	3:45 PM	350	18 Vehicles 450'	20 Vehicles 500'	2 Vehicles 50'	1 Vehicle per 19.4 students
Southern Loading Area Middle / High School	3:45 PM	350	30 Vehicles 750'	36 Vehicles 900'	6 Vehicles 150'	1 Vehicle per 11.7 students
Additional Queueing Middle / High School	Additional Queueing available for the Central and Southern Queues. This distance represents the portion of the Northern Queue that can be double-stacked to provide additional queueing without interfering with the Northern Loading Area's queueing operations.			35 Vehicles 875'	35 Vehicles 875'	

Summary:

This TMP documents the drop-off and pick-up procedures for the Pioneer Technology & Arts Academy Hillcrest Campus. The existing TMP operates well and should be continued until the construction of the Natatorium. After the construction of the Natatorium, the Central Loading Area queue will be reduced to one queueing aisle, but no changes are needed to accommodate its projected queue lengths. With the existing TMP operating as observed, the school traffic will not need to queue vehicles in the right-of-way of any City street. Inbound vehicles should always have an open receiving space on the campus. The property owner/school administrator is responsible for the administration of the TMP and minimizing the impact of the vehicle queue on the City streets. The TMP should be reevaluated at intervals as directed by the City in the SUP language.

Based on the vehicle queuing analysis conducted and the resulting Traffic Management Plan, I, Jacob Halter, P.E. #140914, certify that the results indicate that no queuing of vehicles dropping off or picking up students at the PTAA School will extend onto City of Dallas rights-of-way. In order to ensure that all queuing of vehicles is completely accommodated on school property, Pioneer Technology & Arts Academy administrative officials should continue its existing Traffic Management Plan, monitor the operation on a continuing basis, and if any vehicle queuing should begin to occur on public right-of-way, take the necessary action to mitigate it.

Prepared by:

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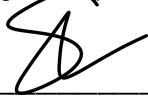
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June 30, 2023



Pioneer Technology & Arts Academy has reviewed and will comply with the approved traffic management plan. The school will monitor the operation on a continuing basis to ensure that school traffic does not form queues in the public right-of-way. If any queuing should begin to occur in the public right-of-way the school agrees to take the necessary action to mitigate it as soon as possible. The school also agrees that any expansion of the total enrollment of the school or any changes in the grades enrolled will require the school to update this study and have a new traffic management plan approved before applying such changes. The school will update its traffic management plan at proper intervals to satisfy the requirements of the City of Dallas.

 <hr/> <p>Signature Shubham Pandey</p> <hr/> <p>Name</p>	<p>6/30/23</p> <hr/> <p>Date Executive Director</p> <hr/> <p>Title</p>
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Attachments

1. Existing Traffic Management Plan Exhibit
2. Proposed (with Natatorium) Traffic Management Plan Exhibit

