
January 17, 2019

Technical Memorandum

To: Mr. Tony Valdez — A+ Charter Schools, INC
From: DeShazo Group, Inc.
Date: January 17, 2019
Re: Traffic Management Plan Update for the A+ Charter School in 8501 Bruton Road
DeShazo Project No. 18112

INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm based in Dallas, Texas providing licensed engineers and planners skilled in the field of traffic and transportation engineering. The services of DeShazo were retained by A+ Charter School to provide a traffic management plan (TMP) update for their School located at 8501 Bruton Road in Dallas, Texas.

The School is currently in operation at the subject site with an enrollment of 573 students in grades K through 12. The School is proposing improvements to current facilities, to provide for a student capacity of 600 students. The School is currently operating under regulations provided in SUP 1357; approval by the City of Dallas is required in order to gain entitlements for the proposed modifications.

As part of the SUP approval process, submittal of a TMP to the City of Dallas is required as a record of the preferred strategies to be used by the School to ensure overall traffic safety and efficiency. This TMP is intended to assess existing and anticipated traffic conditions at the School during the morning drop-off and afternoon pick-up peak periods on the basis of satisfying these objectives. By consent of the TMP, the School agrees to be held self-accountable for the enforcement of the strategies presented herein until and unless the City of Dallas deems further measures are necessary. (NOTE: In this report, the term “parent” refers to any individual who is involved in the drop-off or pick-up of one or more students at the School.)

TRAFFIC MANAGEMENT PLAN

A school TMP is important to safely achieve an optimum level of traffic flow and circulation during peak traffic periods associated with student drop-off and pick-up. By properly managing the vehicular traffic generated during critical periods, the safety and efficiency of other modes of travel—including pedestrian traffic—will also inherently improve, and the operational impact on the public street system should also be minimized. **This plan, however, should not be considered a comprehensive set of instructions to ensure adequate safety; it should be used as a tool to facilitate a safer and more efficient environment.**

School Operational Characteristics

As required by the City of Dallas, DeShazo observed on-site traffic on four different visits at the following times.

- Friday, September 7, 2018, during student dismissal
- Wednesday, September 12, 2018, during student dismissal
- Thursday, September 13, 2018, during student arrival
- Thursday, September 13, 2018 during student dismissal

Table 1 summarizes the operational characteristics for A+ Charter School assumed in this analysis:

Table 1. School Operational Characteristics

	Existing Conditions	Proposed Conditions
Enrollment:	Total (Grades K -12 th): 573 students	Capacity: 600 students (100 per grade)
Daily Start/End Schedule	All Grades: >Start: 7:50 AM >End: 3:10 PM	No significant change
Approximate Number of Students Travelling by Mode Other Than Drop-off/Pick-up:	By School Bus: \cong 5% By Walking: \cong 5% By Self-Driving: < 1% By Other: negligible	No significant changes
Approximate Number of Students With Alternate Schedules (i.e., Arrive/Depart Outside of Normal Peak Times):	Approximately 35% (extracurricular activities, etc.)	No significant change

NOTE #1: To the highest degree practical, the accounts of “existing conditions” presented in this report were based upon actual on-site observations conducted by DeShazo during typical school day(s) conditions and from personal interviews of school representatives. The analyses and recommendations presented in this report for “proposed” or “future” conditions were based upon evaluations of “existing conditions” and may be supplemented by DeShazo’s professional judgment and experience. “Proposed”/“Future” conditions are intended to reflect the anticipated day-to-day conditions at full occupancy.

NOTE #2: Occasional functions or other events may be held at the school, which generate traffic outside of the traditional peak drop-off and pick-up periods. While some of the measures presented in this report may be applicable in such cases, traffic characteristics other than those directly associated with the primary drop-off and pick-up periods are not the subject of this analysis.

EXISTING TRAFFIC CONDITIONS

Site Access and Circulation

The subject site currently has three total driveways, and all are on McCutcheon Lane. During the pick-up and drop-off periods, parents driving vehicles to the site generally enter from “Driveway 1” (northernmost driveway) and exit from the site at Driveway 2 (middle driveway) and “Driveway 3” (southernmost driveway).

Parents who pick-up on-site either park in the available parking spaces on site or circulates through the parking lot aisles. During the morning drop-off period, a similar circulation pattern is used.

Passenger Unloading/Loading and Vehicle Queuing

During the afternoon pick-up period, A+ Charter School employs an unmanaged protocol during the pick-up period whereby parents may generally park on and off-site. In fact, observations indicated that during peak dismissal period only ten parent vehicles queue or park on-site while 90 park on Bruton Rd, McCutcheon Ln, and Barclay St. Once students are released they find their parents wherever they are parked.

Assuming that the number of vehicles generated during the afternoon pick-up period is directly proportional to the number of students enrolled, the peak queue for the future conditions at full occupancy can be estimated. A summary of the peak number of vehicles is provided in **Table 2**.

Table 2. Peak Vehicles In Queue

	Existing Conditions (Observed)	Proposed Conditions (Estimated)
Peak Number of Parent-Vehicles	Approximately 100	No significant change (approximately 105)

RECOMMENDATIONS

The following recommendations are provided by DeShazo to A+ Charter School for the management of vehicular traffic generated by the school during peak traffic conditions. [NOTE: Generally, traffic delays and congestion that occurs during the afternoon pick-up period is notably greater than the traffic generated during the morning drop-off period due to the timing and concentration characteristics. In most instances, achieving efficiency during the afternoon period is most critical, while the morning traffic operations require nominal active management. Therefore, except where stated otherwise, the recommendations provided herein pertain specifically to the afternoon period operations.]

General

To maximize personal safety, any passenger loading (or unloading) within the public right-of-way should be avoided at all times.

To minimize liabilities, no persons other than deputized officers of the law should engage or attempt to influence traffic operations in public right-of-way.

To the extent possible, all queuing and parking of parent-vehicles should also be accommodated within the school site boundaries. For circumstances where this cannot be avoided, coordination with the City of Dallas staff members responsible for traffic operations in the area should take place so that appropriate traffic control devices can be installed. Adjustments to school procedures and policies may be necessary in order to promote on-site pick-up/drop-off.

The full cooperation of all school staff members, students, and parents is crucial for the success of a Traffic Management Plan. Proper training of school staff on the duties and expectations pertaining to the Plan is recommended. Sufficient communications at the beginning of each school term (and otherwise, as needed) with students and parents on their duties and expectations is also recommended.

Site Circulation Plan

Based upon DeShazo's review of the site conditions and the anticipated needs of traffic during peak conditions, the site traffic circulation plan depicted in **Exhibit 1** is recommended. This plan was designed with the intent of optimizing the on-site vehicular circulation and retention of vehicle queuing in a manner that promotes safety and operational efficiency.

The recommended plan provides approximately 2,323 linear feet of on-site vehicular queuing (i.e., storage for up to 105 vehicles @ 22 feet per vehicle). At the expected enrollment of 600 students, DeShazo estimates that the peak number of vehicles in queue may be up to 105 vehicles based upon existing observations. Under this scenario, the site is considered capable of accommodating this magnitude of vehicles in queue simultaneously with the assistance of school personnel; however, no significant amount of surplus queue space is expected.

As depicted in **Exhibit 1**, there are two loading areas. One for the primary queue and a second loading area for the additional queue. The primary queue accommodates approximately 72% (75 vehicles) of the site's queueing space and the additional queue accommodates the other 28% (30 vehicles) of the site's total queueing space. The School will need to designate which loading area each student is picked-up during the dismissal period. This may depend on the student's last class location, last name, or the student's grade.

The plan includes recommended configuration of temporary traffic control devices (such as traffic cones, etc.) that shall be installed on a daily basis when typical traffic conditions are expected. An appropriate number of school staff shall be assigned to fulfill the duties of student supervision, traffic control, and other related duties as generally depicted on the plan.

Staff directing traffic at the intersecting point of two queue lanes (and other areas, where appropriate) should, in lieu of simple hand gestures, procure and use reversible hand-paddle signs with the messages (and symbols) for STOP and for SLOW (i.e., proceed slowly). Optional additional equipment used by staff may include whistles (for audible warnings) and flashlights (for visual warnings) in order to better-gain the attention of motorists.

SUMMARY

This TMP is to be used by A+ Charter School to provide safe and efficient transportation of students, staff, and faculty to and from the site. The Plan was developed with the intent of optimizing safety and efficiency and the goal of accommodating vehicular traffic generated by the school at peak traffic periods within the site. The details of the TMP shall be reviewed by the school on a regular basis to confirm its effectiveness.

END OF MEMO

SCHOOL REVIEW AND COMMITMENT

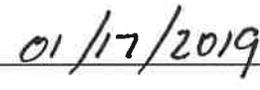
This plan was developed for A+ Charter School with the intent of optimizing safety and efficiency related to vehicular traffic generated by the School during peak traffic periods. A concerted effort and full participation by the School administration, staff, students and parents are essential to maintain safe and efficient traffic operations.

The School has reviewed the Traffic Management Plan and is in support of the strategies presented herein.

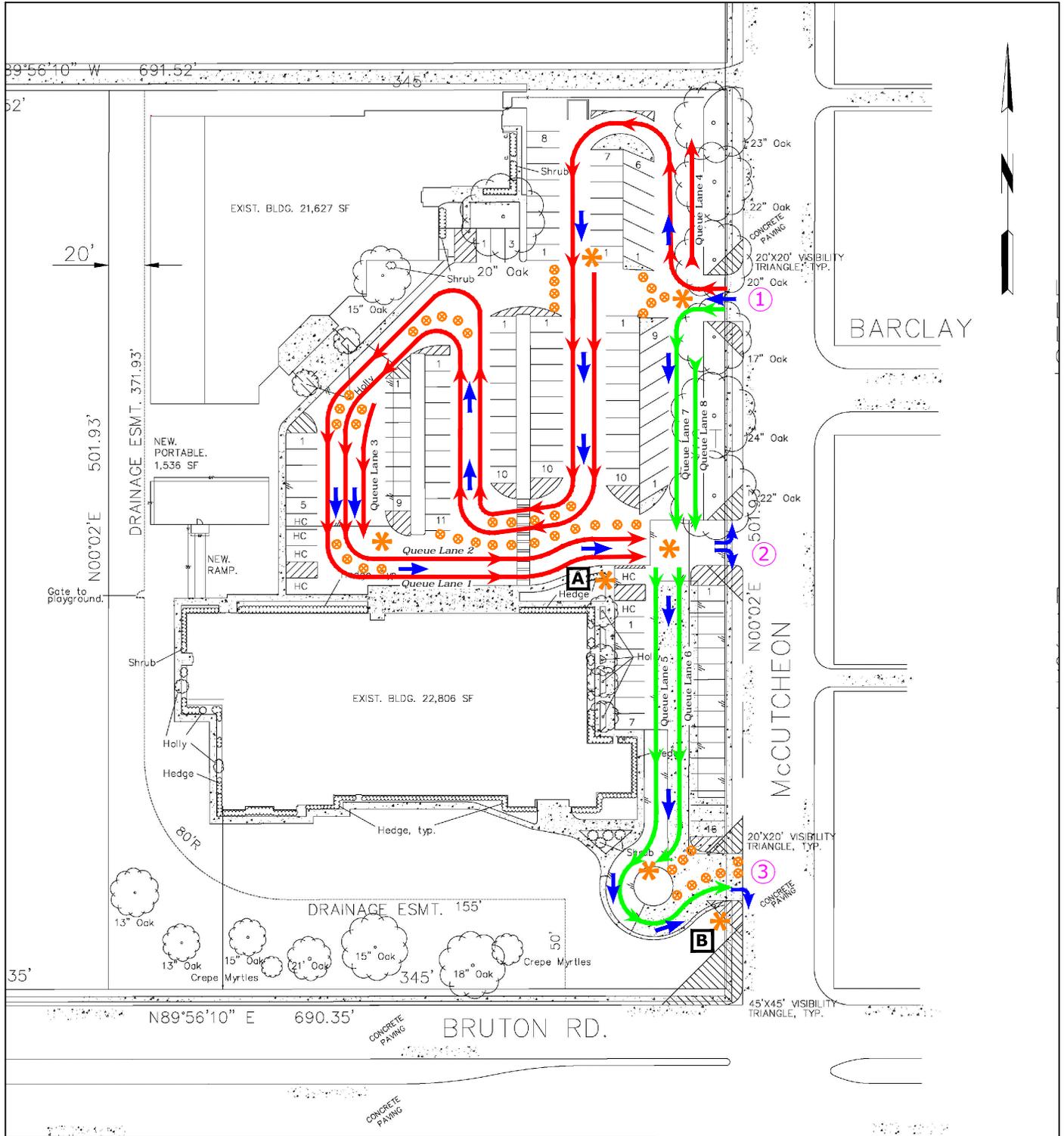
The School is committed to continually reviewing and assessing the effectiveness of the TMP and if warranted, will implement changes in the interest of increasing safety, efficiency and minimizing impacts on the surrounded community.



Tony Valdez, Director of Maintenance
A+ Charter



Date



Student Group & Enrollment	Schedule of Classes	Traveling Modes	Vehicular Traffic Demand: linear feet (cars)
573 students	7:50 AM to 3:10 PM (all grades)	Parent Pick-Up: ~89% School Bus/Van: ~5% Walking: ~5% Self-Driving: <1% TOTAL: 100%	Required: 2,323 LF (105) Provided: 2,323 LF (105) Surplus: 0 LF (0)

This plan evaluates traffic operations that promote safety and efficient vehicle circulation. The school administration should adhere to this plan. Details shall be reviewed on a regular basis to confirm its efficiency. Any deficiency due to spillover of queuing into undesignated areas of the city rights-of-way, including roadway travel lanes, should be corrected by the school immediately.

- Legend:**
- - Circulation Path
 - - Passenger Vehicular Queue (Primary)
 - - Passenger Vehicular Queue (Additional)
 - A - Drop-off/Pick-up Area (Primary)
 - B - Drop-off/Pick-up Area (Additional)
 - ★ - School Staff
 - 1 - School Driveway Nomenclature
 - ⊙ - Traffic Cones

EXHIBIT 1
Traffic Management Plan
 A+ Charter School
 8501 Bruton Road, Dallas, Texas.