

TRAFFIC MANAGEMENT PLAN FOR

A+ ACADEMY

IN DALLAS, TEXAS

DeShazo Project No. 18153

Prepared for:

A+ & Inspired Vision Academies

P.O. Box 171626
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Prepared by:

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A handwritten signature in black ink, appearing to read "John J. DeShazo", written over the bottom portion of the professional seal.

April 16, 2019

04/16/2019

Traffic Management Plan for

A+ Charter

~ DeShazo Project No. 18153 ~

Table of Contents

INTRODUCTION.....	1
TRAFFIC MANAGEMENT PLAN	1
EXISTING TRAFFIC CONDITIONS	2
<i>School Operational Characteristics</i>	2
<i>Site Access and Circulation</i>	3
<i>Student Loading</i>	3
Morning Drop-Off	3
Afternoon Pick-Up	3
<i>Attendance Zone Distribution</i>	3
<i>School Stadium Traffic</i>	4
PROPOSED TRAFFIC CIRCULATION PLAN	4
RECOMMENDATIONS	6
SUMMARY	8



Traffic. Transportation Planning. Parking. Design.
Texas Registered Engineering Firm F-3199

Technical Memorandum

To: Mr. Tony Valdez — A+ Charter Schools, INC
From: DeShazo Group, Inc.
Date: April 16, 2019
Re: Traffic Management Plan Update for A+ Charter
DeShazo Project Number 18153

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. DeShazo's services were retained by A+ Charter Schools, INC to provide a traffic management plan (TMP) for A+ Academy located at 10327 Rylie Road in Dallas, Texas.

The school is currently in operation at the subject site with an enrollment capacity of 850 students in grades Pre-K through 6th.

The school site is zoned R-7.5(A) (Single Family) and will be undergoing construction of a track and field directly north of the school buildings. As part of the 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.**

Site Access and Circulation

The school is located at the north-west corner of Rylie Road and Tufts Road intersection. Tufts Road is approximately 25 ft wide while Rylie Road is approximately 42 ft wide. Tufts Road currently operates one way only (SB direction) during school hours. The school currently has one point of ingress and one point of egress for the west side parking lot on Rylie Road. In addition, there are three access points for the parking lot on Tufts Road. The northernmost access point serves as a point of ingress, the middle access point serves as both a point of ingress and egress, and the southernmost access point serves as a point of egress.

Student Loading

Morning Drop-Off

During the morning drop-off period almost all students, regardless of grade, are dropped-off in the parking lot (Loading zone A). Several parents are seen parking their car on both side of Rylie Road and walking the student to the school.

As previously mentioned, arrival of vehicles in the morning is notably more sporadic than afternoon. Observations found a total of 40 vehicles queued in the parking lot to the west of the school with a spillover of two vehicles on Rylie Road. Ten other vehicles queued in the parking lot to the north of the school (Loading zone B) during the peak drop-off time.

Afternoon Pick-Up

During the afternoon pick-up period parents picking up students of Pre-K through 2nd grade either form a double queue in the parking lot to the west of the school or park on north side (WB direction) of Rylie Road. Students of Pre-K are seen picked up by parents at 3:00 PM. These parents mostly parked on both side of Rylie Road, walked into the campus, picked up their kid/(s) and went back to the car. Observations found a total of 40 vehicles double queued in the parking lot while 46 vehicles were parked on Rylie Road during the pick-up time.

Parents picking up students in 3rd and 4th grade proceed to the parking lot to the north of the school in a single queue upon arriving to the loading area. Observations found a total of 36 vehicles queued in the parking lot during the pick-up time.

The 5th and 6th graders are picked-up at the old church, owned by the school, on the east side of Tufts Road adjacent to the school. These students are directed by five school staff members and a crossing guard from the school to this site during dismissal to be picked-up by their parents. Queueing operations here are also well enforced by school staff. Observations indicated a total of 16 vehicles double queued in the parking lot with a spillover of 40 vehicles on Mulberry Street and Ellenwood Street during the pick-up time.

Attendance Zone Distribution

The students of A+ Academy come to the school from twenty-four different zip code locations. Based on the location of this zip code in respect to the location of the school and convenience of driving, various different routes are chosen for inbound movement (**Appendix A1**). At the end, two routes eventually meet at the school location which eventually bring the passenger cars to the school (**Appendix A2**). The major route from the north and east brings about 557 vehicles, whereas the other route brings about 242 vehicles. Even though, majority of traffic is expected to come from the north, existing traffic pattern shows that almost half of the

traffic coming from north on Tufts Road and the rest from EB and WB on Rylie Road. Making Tufts Road both ways is expected to help parent get inside the north-side parking for pickup.

School Stadium Traffic

The proposed athletic facilities include a track and football field stadium. The school's Athletic Department is expected to coordinate various activities throughout the year. Top traffic-generating event is expected to be soccer games where attendance is expected to include school participants, parents and visiting teams. The proposed stadium will have a maximum capacity of 754 home seats and 451 away seats.

With reasonable certainty, a soccer game will be the most significant traffic generator scenario. The traffic impact from the proposed athletic facilities was analyzed during a typical soccer game with approximately 350 spectators in Gainesville High School Stadium. The total observed parking demand during this game was about 126 vehicles.

A published, technical methodology to calculate the projected trip generation for high school football stadiums is not available. Instead of an established equation or rate, DeShazo evaluated the traffic characteristics for such events. A trip generation rate of *0.26 trip-ends per seat* was determined based upon the following considerations.

- The average parking demand ratio observed at three high school football events and published in the *Shared Parking* (2nd Edition) by the Urban Land Institute is 0.26 parked vehicles per attendee. Although parking ratios are not directly related to trip-ends, the published rate is indicative of a number of vehicles per unit ratio.
- DeShazo also studied the trip generation characteristics of other land uses provided in the Institute of Transportation Engineers (ITE) *Trip Generation* manual (9th Edition).

The trip generation rate is considered appropriate for this analysis based upon factors that accurately reflect specific traffic conditions at school stadiums. Using a 0.26 park-vehicle per attendee, the proposed parking is expected to be adequate for soccer game attendees.

All outbound traffic will be directed towards Rylie Road and Tufts Road at the end of any major game (**Exhibit 1**). Off-duty Police Officer and school staffs are required to circulate traffic during major game.

PROPOSED TRAFFIC CIRCULATION PLAN

According to the City of Dallas Traffic management plan Guidelines, all traffic should be contained inside the school property.

School observations consistently indicate that maximum queues occur during the afternoon peak period when students are being picked-up—the morning period is typically not a significant traffic issue since drop-off activities are more temporally distributed and occurs much more quickly than student pick-up. The projected peak number of vehicles during each dismissal time is provided in Table 2.

Table 2. Peak On-Site Vehicle Demand during Afternoon Peak-Up Period

	LOADING ZONE A	LOADING ZONE B	LOADING ZONE C
	Pre-2 nd Grade 3:20 PM	3 rd -4 th Grade 3:20 PM	5 th -6 th Grade 3:20 PM
Approx. Peak Number of Vehicles	86 vehicles	36 vehicles	56 vehicles

These measures need to be taken for proper traffic management for loading and unloading during pickup/drop-off period-

1. All traffic will either enter from the driveway on Rylie road or from the northern most driveway on Tufts Road during *morning drop-off*. A+ Charter should accommodate all morning arrival traffic operations in accordance with **Exhibit 2**.
2. During afternoon dismissal, all traffic must enter either from the northern most driveway on Tufts Road or from the south driveway on Rylie Road. Based on the existing traffic observations, the total LF required to hold the queue inside the school is 4,005 ft (or 178 vehicles with an avg. length of 22.5 ft). Due to the city of Dallas regulations, no parking or queueing is allowed during drop-off or pick-up periods on public streets. If followed accurately, the new circulation plan is expected to provide 3,290 LF of space for approximately 146 vehicles. All afternoon dismissal traffic operations should be in accordance with **Exhibits 3**, depending on the students' grade.
 - a. The PreK-2nd grade passenger vehicles will enter from the south-western driveway on Rylie Road and make a double-queue inside the parking lot and move towards Loading Zone A. Loading Zone A provides 880 LF of on-site vehicular queueing or storage for up to 39 vehicles at 22.5 feet per vehicle. Existing traffic shows approximately 21 LF/car required for this section and hence for conservative analysis 22.5 LF is used instead of 23.5 LF. This capacity is expected to accommodate at least 45% of the vehicle demand for PreK- 2nd grade students. All of the 46 vehicles that were queued on Rylie Road are required to park at the available parking spaces inside the school boundary and walk to pick up students. After picking up the students, vehicles will exit from the Rylie Road. Both left and right turn exit movement is allowed from this driveway.
 - b. The 3-4th grades pickup will be on the north side of the school and will exit from the middle driveway on the Tufts road. The loading Zone B is expected to provide 1,040 LF of on-site storage for up to 46 vehicles at 22.5 feet per vehicle.
 - c. The 5-6th grades will be picked-up on the eastern side of the school and will exit on the southernmost driveway on Tufts Road. The loading Zone C is expected to provide 1,370 LF of on-site storage for up to 61 vehicles at 22.5 feet per vehicle.

3. Parking or queueing during school hours on Rylie Road or Tufts Road is strictly prohibited. Violators will be ticketed.
4. At the beginning of each school term, parents should be issued hang tags with unique identification that pairs them with their corresponding student(s). During the pick-up period, the hang tags should be displayed in vehicle's windshield while parents circulate through the prescribed routes. School staff should be positioned at strategic locations ahead of the loading areas and relay the sequence of parent arrival back to the loading area so the students can be aligned for pick-up.
5. For the efficient circulation, efficient management plan is crucial. The designated loading/unloading zone can hold 6-16 vehicles in a single/double queue. It is suggested that, all designated locations should have enough staff during both the pickup and dismissal period to avoid any queue spillover on the street due to lack of proper management. School staff should always try to maximize efficiency of student loading operations. Maximum accumulation of vehicles is subject to both the rate of arrival traffic and the rate at which the school staff is able to load/unload students into their corresponding cars; any delay or inadequacy in the loading/unloading operations results in unwarranted accumulation of traffic.

Furthermore, three off-duty police officers is expected to be beneficial for the efficient movement of traffic during afternoon dismissal period. They will be stationed at the Rylie Road and Tufts Road access points. A+ Charter Schools also reserves the rights to place up to 3 TMOs in the street during high traffic congestion times such as school drop-off, pick-up as well as during all special events to enforce compliance with the traffic management plan.

RECOMMENDATIONS

The school administration should continue to implement an active management of student loading to expedite queueing operations and reduce the maximum accumulation of traffic. Queue pick-up participation is a challenge that schools face constantly. Despite the anticipated practices and operational characteristics at A+ Charter, full cooperation of all school staff members, students and parents is crucial for the success of the systematic queue. Proper training of school staff on the duties and expectations pertaining to this plan is recommended. Sufficient communication at the beginning of each school term (and otherwise, as needed) with students and parents on their duties and expectations is also recommended. DeShazo recommends consideration of the following recommendations to optimize queue operations:

Traffic Queue Operations

- Implementation of an "Advance Passenger Identification System" to expedite queue operations. This system uses hangtags displayed through the windshield of arriving vehicles to identify arriving vehicles with the name(s) of corresponding student(s).
- Use of apps or software (e.g., Driveline Dispatch®) to expedite queue operations. This software efficiently displays family names of upcoming vehicles on indoor screens and provides students and school staff with a chart of vehicles approaching the loading zone.
- Staff participating in student drop-off/pick-up operations should, in lieu of simple hand gestures, procure and use reversible hand-paddle signs with the messages "STOP" and "SLOW". Optional

- Morning arrival and afternoon dismissal traffic operations should be managed in accordance with the traffic circulation, loading zones, and parking depicted in **Exhibit 2** and **Exhibit 3**. These plans include the 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.
- Parents should refrain from parking on Street.
- **Parents should not arrive more than 30 minutes prior to the student's dismissal time.**

Student Safety

- Student safety should remain paramount at all times. School administration should continuously remind students, parents and staff of their expectations relative to this traffic management plan throughout the school year.
- School administration should review traffic operations and address any problems concerning this traffic management plan and identify solutions in the interest of student safety.
- In accordance with the Transportation Code, Section 545.4252, State law prohibits the use of wireless communication devices while operating a motor vehicle during the time a school zone is in effect. Restrictions do not apply to stopped vehicles or the use of handheld free devices.

SUMMARY

This TMP should be used by A+ Charter 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 within the site at peak traffic periods. School administration should review details of this TMP on a regular basis to confirm its effectiveness.

END OF MEMO

SCHOOL REVIEW AND COMMITMENT

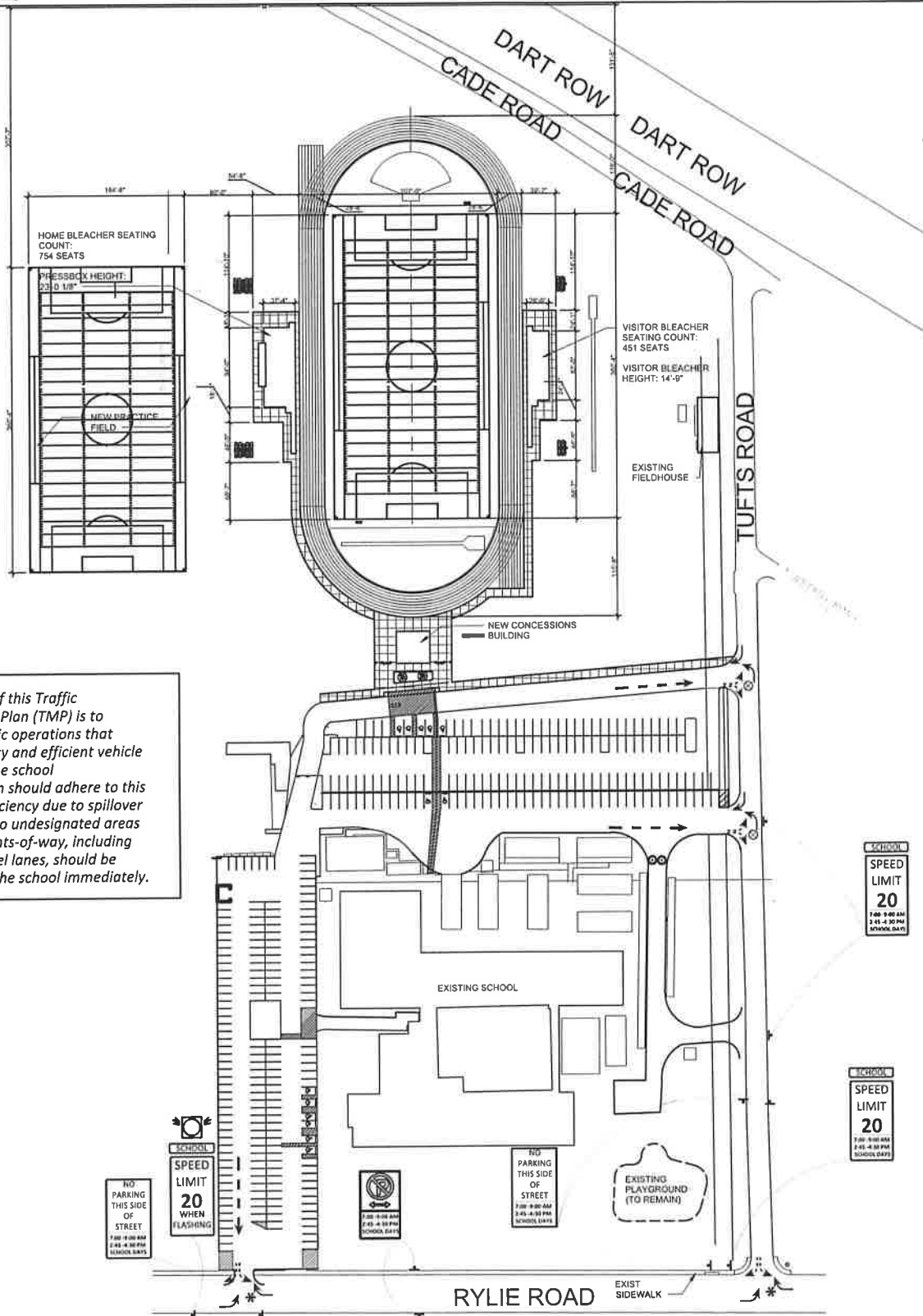
This plan was developed for A+ Charter with the intent of optimizing safety and efficiency related to vehicular traffic generated by the School during peak traffic periods. A concerted effort and full participation by the School administration, staff, students and parents are essential to maintain safe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

April 17, 2019
Date



The purpose of this Traffic Management Plan (TMP) is to evaluate traffic operations that promote safety and efficient vehicle circulation. The school administration should adhere to this TMP. 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

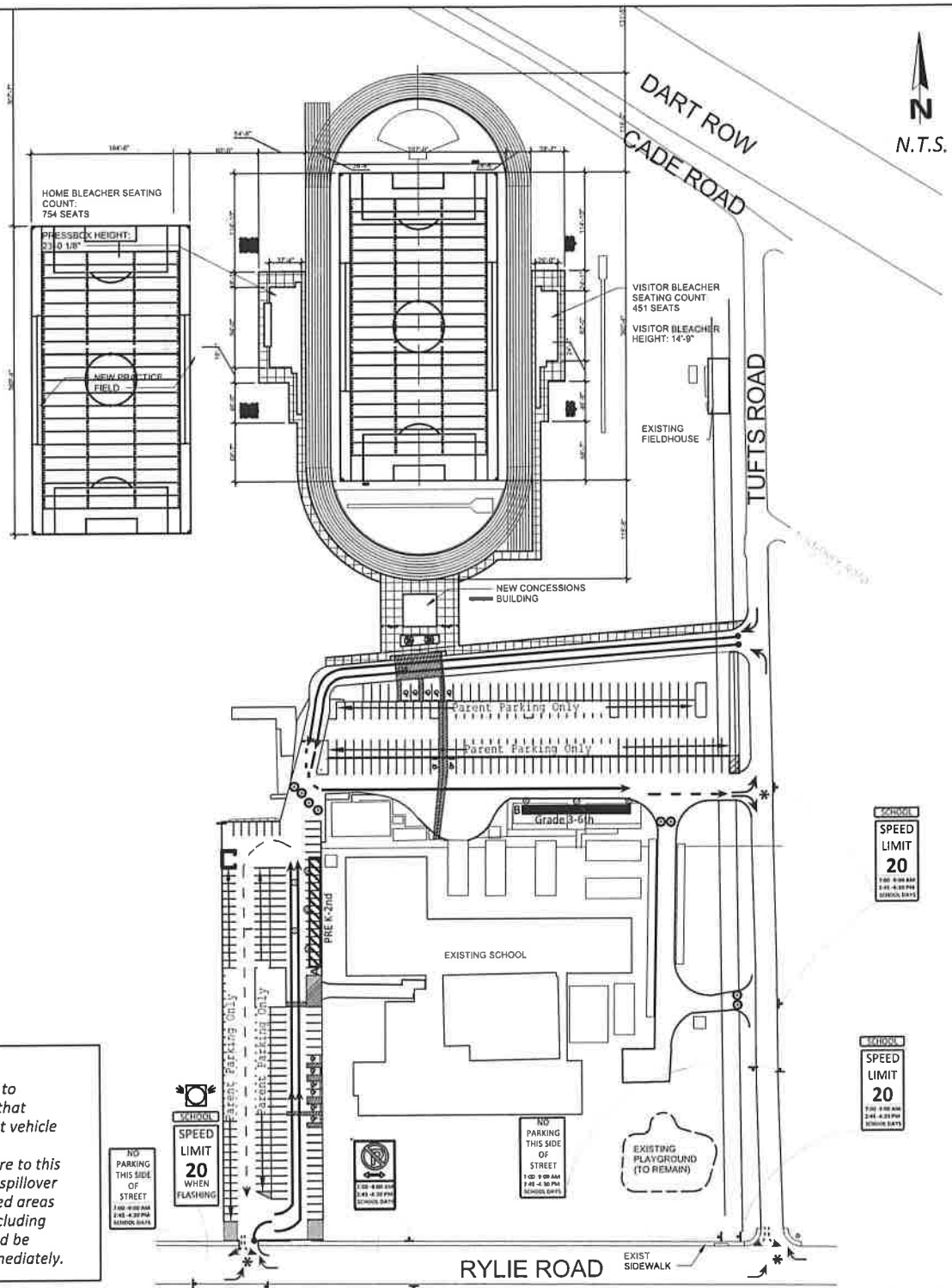
- Inbound/Outbound
- Outbound Route
- Off-duty Police Officer
- Traffic Cones
- School Staff

EXHIBIT 1

Traffic Management Plan - For Soccer Events

A+ Charter
10327 Rylie Road, Dallas, Texas

DeShazo Group, Inc.
Texas Registered Engineering Firm F-3199
400 S. Houston St. Suite 330
Dallas, Texas 75202
(214) 748.6740



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Legend

- ➔ - On-Site Vehicle Queue
- ↶ ↷ - Inbound/Outbound
- ▨ - Vehicle Loading Zone (PreK-2nd)
- ➔ - Outbound Route
- ▨ - Vehicle Loading Zone (3rd-6th)
- ⊕ ⊖ - School Staff/Announcer
- ↔ - Parent Parking
- * - Off-Duty Deputy Officer

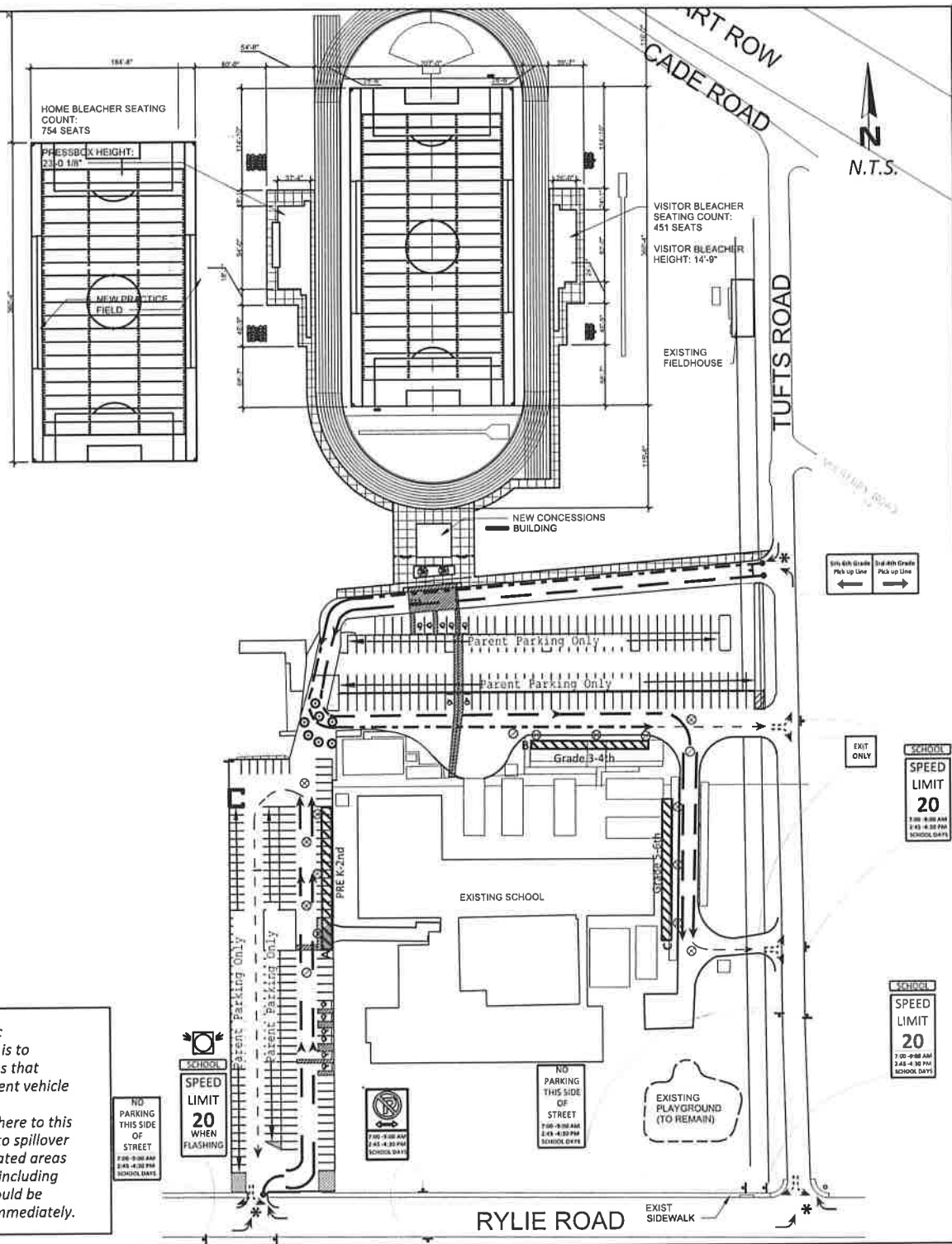
Student Grade	Student Capacity	Start/End Schedule	Travel Modes	Vehicular Traffic Demand Queue Summary
Pre-K	850	7:40 AM - 3:20 PM	Parent Pick-Up: 94% Van Drop-off: 6%	Projected: Pre K-2nd: 880 LF (39 veh) 3-6th: 248 LF (11 veh)
to 6th				Recommended: Pre K-2nd: 880 LF (39 veh) 3-6th: 1,630 LF (72 veh)
Total				Surplus: 1,382 LF (61 veh)

EXHIBIT 2

Traffic Management Plan - Morning Arrival

A+ Charter
10327 Rylie Road, Dallas, Texas

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Texas Registered Engineering Firm F-3199
400 S. Houston St. Suite 330
Dallas, Texas 75202
(214) 748.6740



The purpose of this Traffic Management Plan (TMP) is to evaluate traffic operations that promote safety and efficient vehicle circulation. The school administration should adhere to this TMP. 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

- ➔ - On-Site Vehicle Queue ➔ - Outbound Route
- ▨ - Loading Zones * - Off-Duty Deputy Officer
- ↔ - Parent Parking ↗ - Inbound/Outbound
- ⊕ - Staff/Announcer ⊙ - Traffic Cones

Student Grade	Student Capacity	Start/End Schedule	Travel Modes	Vehicular Traffic Demand Queue Summary
Pre-K	850	7:40 AM - 3:20 PM	Parent Pick-Up: 94% Van Pick-up: 6%	Projected: Pre K-2nd: 1,935 LF (86 veh) 3-4th: 810 LF (36 veh) 5-6th: 1,260 LF (56 veh)
to				Recommended: Pre K-2nd: 880 LF (39 veh) 3-4th: 1,040 LF (46 veh) 5-6th: 1,370 LF (61 veh)
6th				Surplus: 342 LF (15 veh)
Total	850			

EXHIBIT
3

Traffic Management Plan - Afternoon Dismissal

A+ Charter
10327 Rylye Road, Dallas, Texas

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Appendix

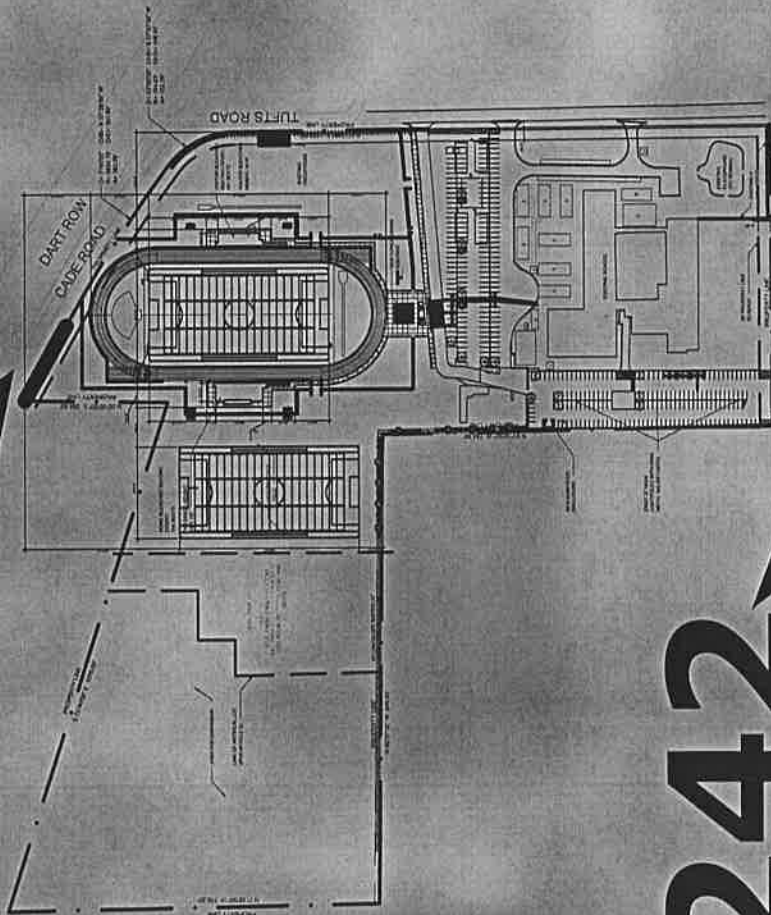


Traffic Management Plan - Traffic Distribution

A+ Academy
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557



242



Legend

- Vehicle Route
 - Total Count

Traffic Management Plan - Traffic Assignment

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Appendix A2
 A+ Academy
 10327 Rylie Road, Dallas, Texas