*TRAFFIC MANAGEMENT PLAN FOR*

# THE ADVANTAGE ACADEMY NORTH DUNCANVILLE CAMPUS

*DALLAS, TEXAS*

*DeShazo Project No. 16133*

***Z167-145***

Prepared for:

**Advantage Academy**

618 W Wheatland Road

Duncanville, Texas 75116


Prepared by:

**DeShazo Group, Inc.**

**Texas Registered Engineering Firm F-3199**

400 South Houston Street, Suite 330

Dallas, Texas 75202

*214.748.6740*

*February 8, 2017*

DeShazo Group

Traffic. Transportation Planning. Parking. Design.

Traffic Management Plan for

**Advantage Academy – North Duncanville Campus**

*~ DeShazo Project No. 16133 ~*

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DeShazo Group

*Traffic. Transportation Planning. Parking. Design.*

# *Technical Memorandum*

**To:** *Angela McDonald – Advantage Academy*

**From:** *David Nevarez, PE, PTOE* — DeShazo Group, Inc.

**Date:** February 8, 2017

**Re:** Traffic Management Plan for Advantage Academy North Duncanville Campus in Dallas, Texas

*DeShazo Project Number 16133; Zoning No. Z167-145*

## INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm based in Dallas, Texas providing licensed professional engineers and urban planners skilled in the field of traffic/transportation engineering. The services of DeShazo were retained by Building Solutions ("the client") on behalf of Advantage Academy to provide a requisite traffic management plan (TMP) for a proposed expansion of their North Duncanville campus in Dallas, Texas.

Advantage Academy is an open-enrollment charter school serving students from pre-kindergarten to eighth grade. The "North Duncanville" campus currently operates in two separate city blocks. Students in Pre-Kindergarten through Grade 5 attend classes at 4010 Joseph Hardin Drive. A separate building across the street, located at 4009 Joseph Hardin Drive serves grades 6, 7 and 8. The current school enrollment is 487 students. DeShazo previously prepared a TMP update on October 8, 2015. **Exhibit 1** presents a site location map with all the properties associated with the North Duncanville Campus.

The proposed expansion of the school campus plans to retain Pre-Kindergarten through 3$^{rd}$ grade of 4010 Joseph Hardin Drive building and relocate 4$^{th}$ and 5$^{th}$ grade with 6$^{th}$ through 8$^{th}$ grade to proposed expansion of 4011 Joseph Hardin Drive.

The school property is zoned Industrial Research (IR) District and is regulated by Chapter 51A of the Dallas Development Code. City of Dallas approval is required to gain entitlements for the proposed expansion. As part of the approval process, submittal of a TMP 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 during the school's peak periods on the basis of satisfying these objectives. By consent of the TMP submittal, the school agrees to the strategies for which the school will be held self-accountable until and unless the City of Dallas deems further measures are appropriate.

# TRAFFIC MANAGEMENT PLAN

A school Traffic Management Plan (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. Properly managing the vehicular traffic generated during the critical periods inherently improves the safety and efficiency of all modes of travel and also minimizes the operational impact on the public street system. The TMP should not be considered a comprehensive set of instructions to ensure adequate safety; however, it should be used as a tool to facilitate a safer and more efficient environment.

The analysis summarized below utilizes the proposed school site plan to evaluate aspects such as passenger loading/unloading and vehicle queuing (i.e. stacking) that occur at the school in order to accommodate the observed peak demands within the site. A concerted effort and full participation by the school administration, staff, students, and parents are encouraged to provide and maintain safe and efficient traffic operations.

## *School Operational Characteristics*

**Table *1*** summarizes operational characteristics for Advantage Academy assumed in this analysis:

**Table 1. School Operational Characteristics**

| | Existing Conditions | Proposed Conditions |
|---|---|---|
| Enrollment (by grade) | 4010 Joseph Hardin:<br>Pre-K – 5th Grade, 315 Students<br>4009 Joseph Hardin:<br>6th – 8th Grade, 172 Students<br><br>Total Enrollment: 487 Students | 4010 Joseph Hardin:<br>Pre-K – 3rd Grade, 260 Students<br>4009 Joseph Hardin:<br>4th – 5th Grade, 176 Students<br>6th – 8th Grade, 264 Students<br>Total Enrollment: 700 Students |
| Daily Schedule | • Pre-K – 5th Grade:<br>9:15 AM – 3:20 PM<br>• 6th – 8th Grade –<br>7:50 AM – 3:40 PM | Same as existing |
| Mode of Transportation: | By Bus/Van ≅0%<br>By Walking ≅0%<br>Parent Pick-Up ≅100% | Same as existing |

## *Site Access and Circulation*

The proposed expansion of the school property at 4009 Joseph Hardin Drive has frontage on both Joseph Hardin Drive and Country Creek Drive. There is one driveway on County Creek Drive that serves as an entrance only with direct access to Joseph Hardin Drive. This driveway entrance is 24 feet wide and can accommodate two parallel queues inbound. One plan was prepared to accommodate the traffic operations based on student population. **Exhibit 2** presents recommendations at 4010 Joseph Hardin Drive that can support up to 260 students per dismissal time at 3:20 pm—an anticipated proposed condition for the site expansion. **Exhibit 3A** presents recommendations at 4009 Joseph Hardin Drive that can support up to 176 students in 4th and 5th grade students per dismissal time at 3:20 pm and **Exhibit 3B** presents recommendations at 4009 Joseph Hardin Drive that can support up to 264 students in grades 6th through 8th per dismissal time at 3:40 pm—an anticipated proposed condition for the site expansion. Based upon actual observations of existing traffic operations at the existing sites, parents have no problem exiting sequentially upon leaving the loading area. Exiting traffic drives towards the egress driveway along the designated route.

## *Passenger Loading and Vehicular Queue*

During the afternoon pick-up period, the proposed school site will implement a managed "carpool" system. Parents will arrive to the site with identification name tags that pairs them with the corresponding student. During the pick-up period, the names of students are on display through the vehicle's windshield while parents circulate through the prescribed route. School staff is positioned at strategic locations to relay the sequence of parent arrival back to the loading area. In the meantime, students are prepped for pick-up as parents approach their corresponding loading area. Several vehicles are loaded simultaneously with the assistance of other school staff stationed at the loading area. Only one single loading zone in front of the main building entrance will serve pick-up operations. In general, the site provides ample queuing space with vehicles forming two rows. Once loaded, vehicles are cleared by school staff to carefully exit the site along the designated route.

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 issues since drop-off activities are more temporally distributed and occur much more quickly than student pick-up. DeShazo empirically quantified the peak number of parent-vehicles on site during the afternoon pick-up period based upon field observations commissioned during typical school-day conditions (on Tuesday, September 20, and Thursday, September 22, 2016). 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. The projected peak number of vehicles during each dismissal time is summarized in **Table *2***.

**Table 2. Peak Vehicles Parked and In Queue during Afternoon Pick-Up Period**

| Group | Dismissal Time | Existing Max Queue *(observed)* |
|---|---|---|
| Grades Pre-K – 5th | 3:20 PM | 36 cars<br>*315 students* |
| Grades 6, 7, 8 | 3:40 PM | 22 cars<br>*172 students* |

**Table 3. Queueing Summary for Pick-Up**

| Group | Dismissal Time | Vehicular Traffic |
|---|---|---|
| Grades Pre-K – 3rd<br>260 Students | 3:20 PM | Provided: 705 LF (30 cars)<br>Required: 681 LF (29 cars)<br>Surplus: 23.5 LF (1 car) |
| Grades 4th – 5th<br>176 Students | 3:20 PM | Provided: 705 LF (30 cars)<br>Required: 470 LF (20 cars)<br>Surplus: 235 LF (10 cars) |
| Grades 6th – 8th<br>264 Students | 3:40 PM | Provided: 1,200 LF (51 cars)<br>Required: 799 LF (34 cars)<br>Surplus: 401 LF (17 cars) |

## *School Traffic Impact to Adjacent Roadways*

DeShazo commissioned turning movement counts—including pedestrian traffic—in 15-minute increments at the intersection of Joseph Hardin Drive and Exchange Service Drive on Wednesday, January 25, 2017. The morning data was collected between 6:00 and 10:00 AM while the afternoon data was collected from 2:30 to 6:30 PM. Detailed traffic data of Joseph Hardin Drive is provided in **Appendix A**.

Peak hour volumes provide a technical variable to evaluate levels of performance based upon professional judgment and observations of current traffic operations at the intersection of Joseph Hardin Drive and Exchange Service Drive. An evaluation of peak hour traffic volumes indicates that existing school traffic constitutes a small portion of the total capacity of the intersection. Furthermore, an evaluation of proposed conditions indicates that adjacent streets provide adequate capacity to support the school traffic without any adverse impact to the adjacent properties—particularly Army & Air Force Exchange Services (AAFES) traffic that coincides with the morning school peak hour.

## *Recommendations*

The following recommendations are provided by DeShazo to the Advantage Academy Charter School for the management of vehicular traffic generated by the school during peak traffic conditions. 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, the recommendations provided herein pertain specifically to the afternoon period operations.

1. This TMP was designed with the intent of optimizing vehicular circulation and retention of vehicle queuing in a manner that promotes safety and operational efficiency. The plan includes a recommended configuration of temporary traffic control devices 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.

    - The recommended plan presented in **Exhibit 2** provides approximately 705 linear feet of on-site vehicular queuing at 4010 Joseph Hardin Drive for Pre–Kindergarten through 3rd grade students. This capacity provides enough storage for a projected maximum queue of 29 vehicles at 3:20 PM.

    - The recommended plan presented in **Exhibit 3A** provides approximately 705 linear feet of on-site vehicular queuing at 4009 Joseph Hardin Drive for 4th-5th grade students at 3:20 PM. This capacity provides enough storage for a maximum queue of 20 vehicles and yields a surplus of 325 feet.

      Note: An additional 470 linear feet is provided for early arrivals of 6th – 8th grade students dismissal period.

    - The recommended plan presented in **Exhibit 3B** provides approximately 1,200 linear feet of on-site vehicular queuing at 4009 Joseph Hardin Drive for 6th-8th grade students at 3:40 PM. This capacity provides enough storage for a maximum queue of 34 vehicles and yields a surplus of 400 feet.

2. The plan also includes a 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 should be assigned to fulfill the duties of student supervision, traffic control, and other related duties as generally depicted on the plan.

3. Staff directing traffic at the intersecting point of two queue lanes (and other areas, where appropriate) should 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.

The full cooperation of all school staff members, students, and parents is crucial for the success of any traffic management plan. Proper training of school staff on 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.

Passenger loading and unloading within public right-of-way should be avoided at all times. To the extent possible, all queuing and parking should be accommodated within the school site boundaries. For circumstances where this cannot be avoided, the school should coordinate with City staff responsible for traffic operations in the area to investigate appropriate mitigation measures. Also, to minimize liabilities, no person(s) other than deputized officers of the law should engage or attempt to influence traffic operations in public right-of-way to minimize liabilities.

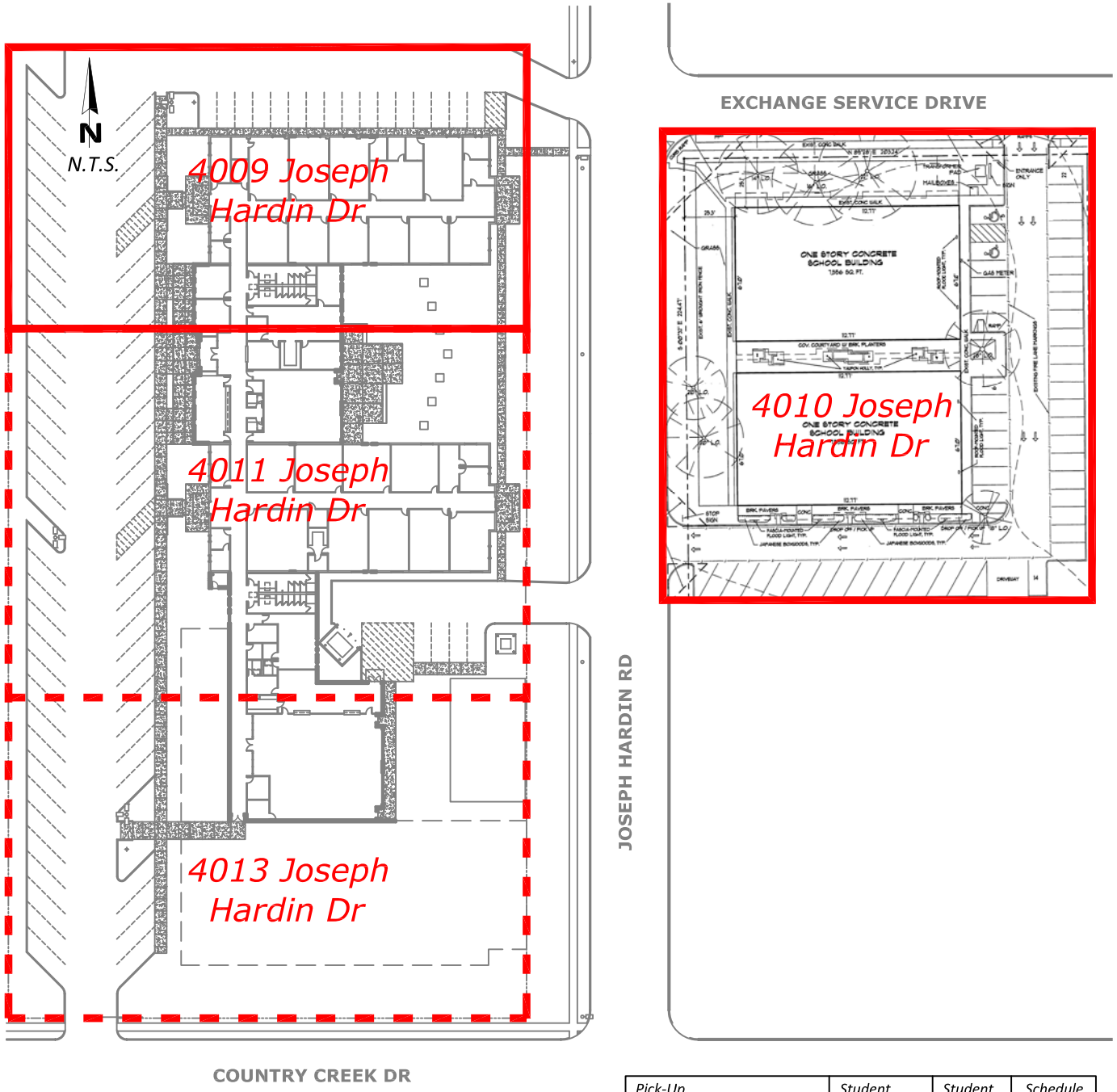
# SUMMARY

Observations of the existing traffic management and a cursory review of carpool procedures indicate that current operations are optimal and should remain in practice in the future. This TMP is to be used by Advantage Academy 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***

DeShazo Group

# Z167-145 (SM)




| Pick-Up Location | Student Group | Student Enroll. | Schedule |
|---|---|---|---|
| ***EXISTING CONDITIONS*** | | | |
| *4010 Joseph Hardin Dr* | *Pre-School to 5th Grade* | *315 Students* | *7:50 AM-3:20 PM* |
| *4009 Joseph Hardin Dr* | *6-8th Grade* | *172 Students* | *7:50 AM-3:40 PM* |
| ***PROPOSED CONDITIONS*** | | | |
| *4010 Joseph Hardin Dr* | *Pre-School to 3rd Grade* | *260 Students* | *7:50 AM-3:20 PM* |
| *4009-4013 Joseph Hardin Dr* | *4-5th Grade* | *176 Students* | *7:50 AM-3:20 PM* |
| *4009-4013 Joseph Hardin Dr* | *6-8th Grade* | *264 Students* | *7:50 AM-3:40 PM* |

**Legend**

- Existing School Property: 4009 & 4010 Joseph Hardin Drive
- Proposed Advantage Academy School Expansion (4-8th Grades): 4009, 4011, 4013 Joseph Hardin Drive

**EXHIBIT 1**

## *Site Location Map*

*Advantage Academy - North Duncanville Campus*
*4009 Joseph Hardin Drive, 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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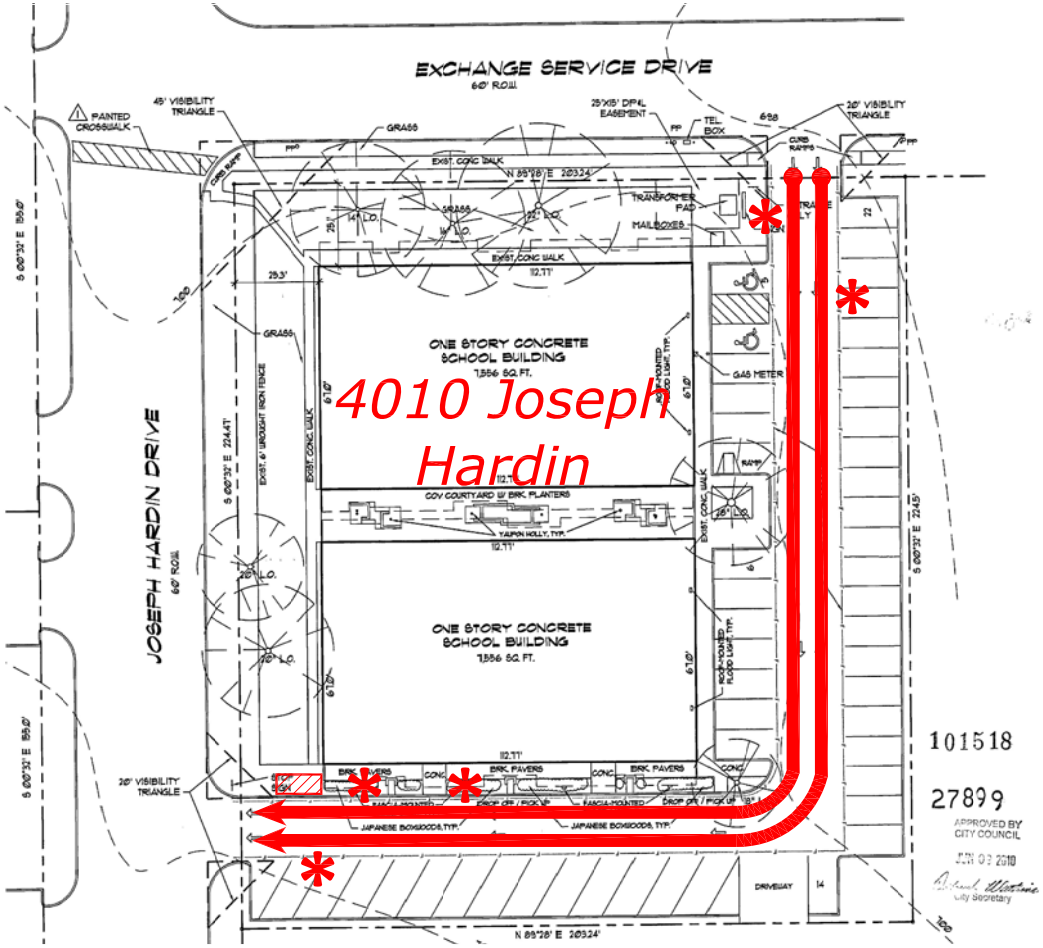
# PRE K - 3RD




## Queuing Summary

| Grades & Student Enrollment | Dismissal Times | Vehicular Traffic |
|---|---|---|
| Grades Pre K - 3rd<br>260 Students | 3:20 PM | Provided: 705 LF (30 cars)<br>Required: 682 LF (29 cars)<br>Surplus: 23.5 LF (1 car) |

## Legend

- ✱ - School Staff
- ▨ - Loading Area
- → - Queue Capacity
- ⊗ - Traffic Cones

*The purpose of this Traffic Management Plan (TMP) is to evaluate traffic operations that promote safety and efficient vehicle circulation. This TMP was developed to prevent queuing of drop-off/pick-up related vehicles within the city rights-of-way. 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.*

*I, David Nevarez, P.E. #106200, certify that the results of the queuing analysis–upon complete enforcement of this Traffic Management Plan–indicate that no queuing of vehicles will extend into City of Dallas rights-of-way as a result of internal queuing constraints during the study peak hours of school operation.*

**Vehicular queue calculated at 23.5 feet/car based on field observations.*

EXHIBIT **2**

## *Traffic Management Plan*

*Advantage Academy*
*4010 Joseph Hardin 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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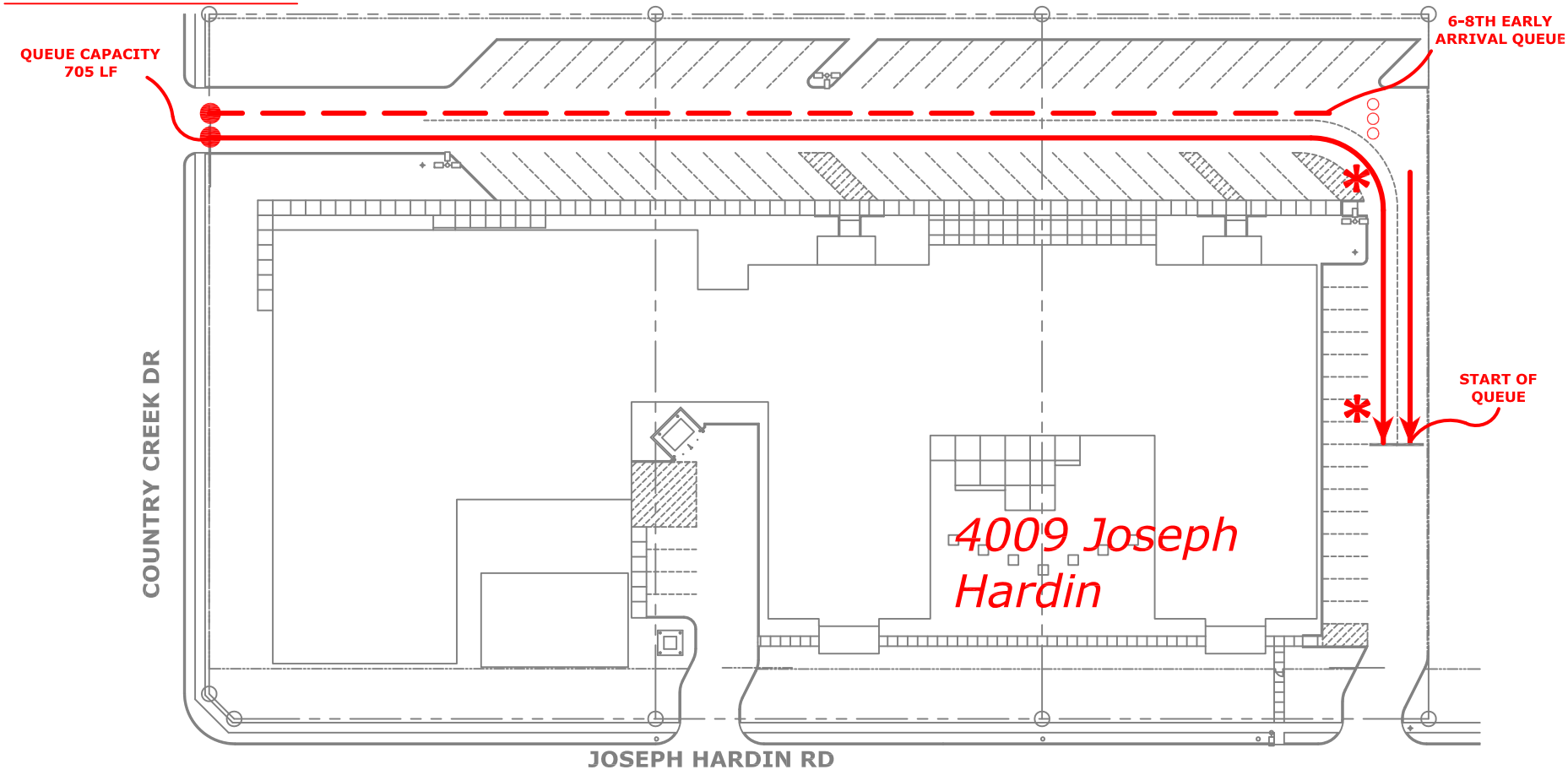
Z 167 - 145 (SM)

# GRADES 4TH - 5TH




## Queuing Summary

| Grades & Student Enrollment | Dismissal Times | Vehicular Traffic |
|---|---|---|
| Grades 4 - 5th<br>176 Students | 3:20 PM | Provided: 705 LF (30 cars)<br>Required: 470 LF (20 cars)<br>Surplus: 235 LF (10 cars) |

## Legend

- ✱ - School Staff
- - Loading Area
- → - Queue Capacity
- ⊗ - Traffic Cones
- ⇢ - Waiting Queue

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**Vehicular queue calculated at 23.5 feet/car based on field observations.*

EXHIBIT **3A**

## *Traffic Management Plan*

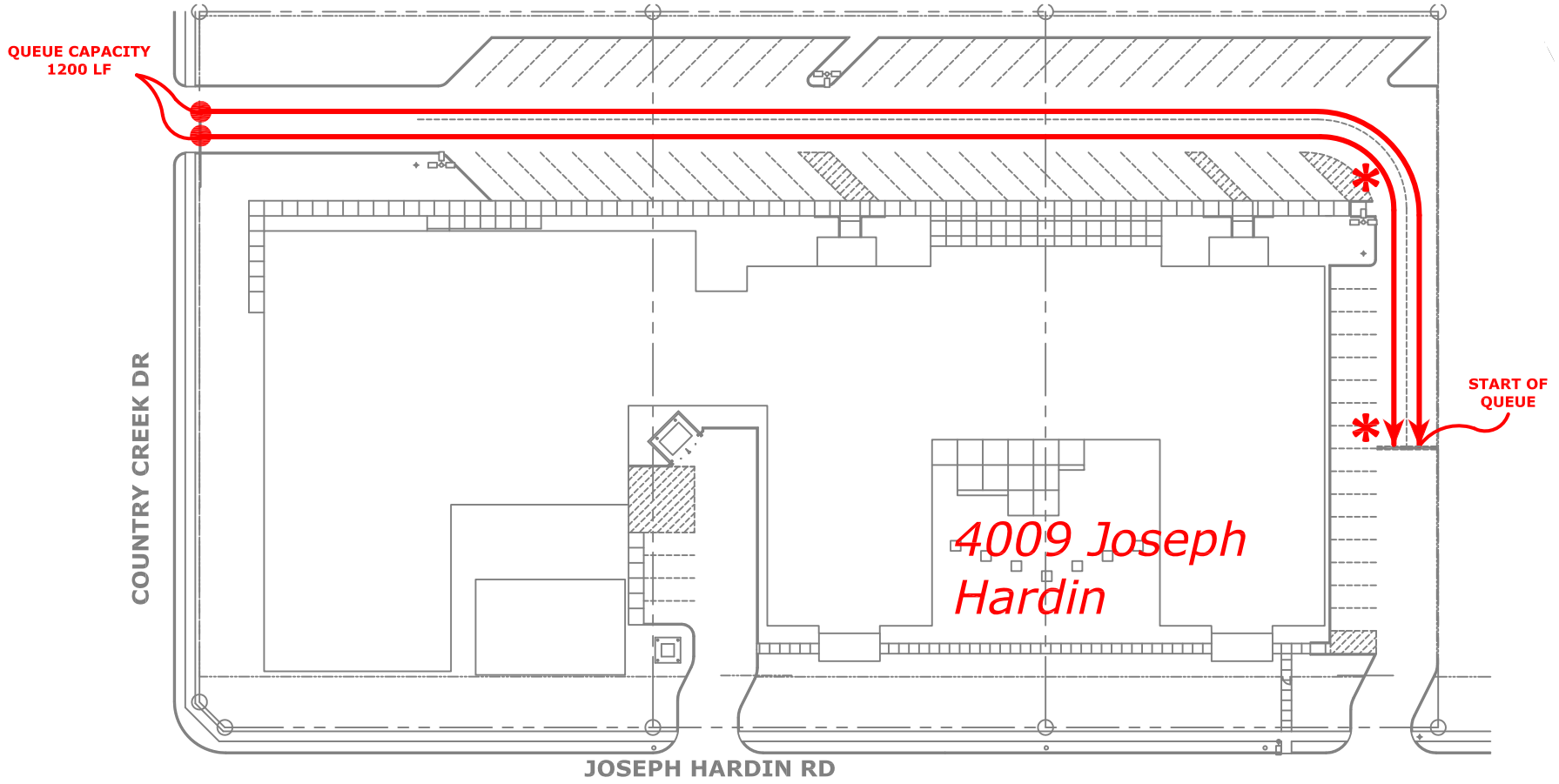
*Advantage Academy*
*4009 & 4011 Joseph Hardin Road, Dallas, Texas*


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

DeShazo Group

Z 167 -145 (SM)

# GRADES 6TH - 8TH




## Queuing Summary

| Grades & Student Enrollment | Dismissal Times | Vehicular Traffic |
|---|---|---|
| Grades 6 - 8th<br>264 Students | 3:40 PM | Provided: 1,200 LF (51 cars)<br>Required: 799 LF (34 cars)<br>Surplus: 401 LF (17 cars) |

## Legend

- ✱ - School Staff
- ▬ - Loading Area
- → - Queue Capacity
- ⊗ - Traffic Cones

*The purpose of this Traffic Management Plan (TMP) is to evaluate traffic operations that promote safety and efficient vehicle circulation. This TMP was developed to prevent queuing of drop-off/pick-up related vehicles within the city rights-of-way. 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.*

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**Vehicular queue calculated at 23.5 feet/car based on field observations.*

EXHIBIT **3B**

## *Traffic Management Plan*

*Advantage Academy*
*4009 & 4011 Joseph Hardin Road, Dallas, Texas*

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

# *Appendix*

## Intersection Traffic Movements

*DeShazo Group, Inc.*

Location: ***Joseph Hardin Drive and Exchange Services Drive***
City/State: ***Dallas, TX***
Day/Date: ***Wednesday, January 25, 2017***
Project-ID #: ***16133-01***
Data Source: ***CJ Hensch***
Data Collector(s): ***Camera***
Weather Conditions: ***Mild/Normal Conditions***
Traffic Control: ***Unsignalized***
Description: ***Minor-Street STOP Controlled***

| Time of Count | | Northbound on *Joseph Hardin Drive* | | | | Southbound on *Joseph Hardin Drive* | | | | Eastbound on *School Driveway* | | | | Westbound on *Exchange Services Drive* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Begin** | **End** | **Ped** | **L** | **T** | **R** | **Ped** | **L** | **T** | **R** | **Ped** | **L** | **T** | **R** | **Ped** | **L** | **T** | **R** |
| 6:00 AM | 6:15 AM | 0 | 0 | 14 | 21 | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 4 | 0 | 4 |
| 6:15 AM | 6:30 AM | 0 | 1 | 29 | 43 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 6:30 AM | 6:45 AM | 0 | 0 | 46 | 43 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |
| 6:45 AM | 7:00 AM | 0 | 0 | 64 | 50 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 |
| 7:00 AM | 7:15 AM | 1 | 0 | 56 | 50 | 3 | 5 | 5 | 0 | 7 | 4 | 4 | 2 | 5 | 2 | 1 | 5 |
| 7:15 AM | 7:30 AM | 0 | 0 | 56 | 106 | 1 | 3 | 8 | 0 | 42 | 1 | 8 | 3 | 27 | 4 | 0 | 9 |
| 7:30 AM | 7:45 AM | 0 | 0 | 51 | 82 | 2 | 6 | 12 | 0 | 39 | 8 | 16 | 16 | 30 | 7 | 0 | 5 |
| 7:45 AM | 8:00 AM | 0 | 0 | 67 | 54 | 0 | 7 | 6 | 0 | 26 | 6 | 10 | 7 | 22 | 2 | 0 | 6 |
| 8:00 AM | 8:15 AM | 0 | 0 | 43 | 14 | 0 | 3 | 1 | 0 | 5 | 0 | 0 | 0 | 7 | 5 | 0 | 9 |
| 8:15 AM | 8:30 AM | 0 | 0 | 19 | 21 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 4 | 3 | 0 | 5 |
| 8:30 AM | 8:45 AM | 0 | 0 | 14 | 12 | 0 | 2 | 2 | 0 | 5 | 0 | 0 | 0 | 3 | 3 | 0 | 4 |
| 8:45 AM | 9:00 AM | 0 | 0 | 2 | 10 | 0 | 2 | 2 | 0 | 6 | 0 | 1 | 0 | 5 | 3 | 0 | 7 |
| 9:00 AM | 9:15 AM | 0 | 0 | 4 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 0 | 0 |
| 9:15 AM | 9:30 AM | 0 | 0 | 7 | 5 | 0 | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 2 |
| 9:30 AM | 9:45 AM | 0 | 0 | 5 | 7 | 0 | 1 | 2 | 0 | 5 | 0 | 1 | 0 | 5 | 2 | 0 | 3 |
| 9:45 AM | 10:00 AM | 0 | 0 | 5 | 3 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 4 | 5 | 0 | 2 |
| *Intersection PHV:* | | | *0* | *230* | *292* | | *21* | *31* | *0* | | *19* | *38* | *28* | | *15* | *1* | *25* |
| *PHF:* | | | *0.00* | *0.86* | *0.69* | | *0.75* | *0.65* | *0.00* | | *0.59* | *0.59* | *0.44* | | *0.54* | *0.25* | *0.69* |
| *Intersection Peak Hour: 7:00 AM - 8:00 AM* | | | | | | | | | | | | | | | | *Intersection PHF: 0.86* | |
| **Study Area PHV:** | | | **0** | **230** | **292** | | **21** | **31** | **0** | | **19** | **38** | **28** | | **15** | **1** | **25** |
| **PHF:** | | | **0.00** | **0.86** | **0.69** | | **0.75** | **0.65** | **0.00** | | **0.59** | **0.59** | **0.44** | | **0.54** | **0.25** | **0.69** |
| **Study Peak Hour: 7:00 AM - 8:00 AM** | | | | | | | | | | | | | | | | **Study Area PHF: 0.86** | |
| 2:30 PM | 2:45 PM | 0 | 0 | 15 | 26 | 0 | 6 | 27 | 0 | 21 | 7 | 17 | 16 | 33 | 11 | 0 | 2 |
| 2:45 PM | 3:00 PM | 0 | 0 | 9 | 17 | 0 | 1 | 11 | 0 | 23 | 7 | 7 | 12 | 55 | 5 | 0 | 2 |
| 3:00 PM | 3:15 PM | 0 | 0 | 13 | 16 | 0 | 4 | 32 | 0 | 10 | 0 | 0 | 2 | 7 | 13 | 0 | 4 |
| 3:15 PM | 3:30 PM | 0 | 0 | 4 | 13 | 0 | 4 | 11 | 0 | 7 | 1 | 2 | 0 | 2 | 13 | 0 | 1 |
| 3:30 PM | 3:45 PM | 0 | 0 | 7 | 7 | 0 | 6 | 86 | 0 | 2 | 0 | 0 | 1 | 2 | 31 | 0 | 15 |
| 3:45 PM | 4:00 PM | 0 | 0 | 5 | 6 | 0 | 1 | 31 | 0 | 2 | 0 | 0 | 0 | 3 | 13 | 0 | 3 |
| 4:00 PM | 4:15 PM | 0 | 0 | 4 | 3 | 0 | 8 | 78 | 0 | 3 | 0 | 0 | 1 | 0 | 39 | 0 | 8 |
| 4:15 PM | 4:30 PM | 0 | 0 | 9 | 4 | 0 | 5 | 36 | 0 | 2 | 1 | 0 | 2 | 5 | 20 | 0 | 8 |
| 4:30 PM | 4:45 PM | 0 | 0 | 7 | 12 | 0 | 6 | 65 | 0 | 2 | 0 | 2 | 3 | 0 | 39 | 1 | 7 |
| 4:45 PM | 5:00 PM | 0 | 0 | 6 | 7 | 0 | 7 | 37 | 1 | 2 | 0 | 0 | 0 | 3 | 22 | 0 | 1 |
| 5:00 PM | 5:15 PM | 0 | 0 | 15 | 3 | 0 | 7 | 36 | 0 | 0 | 0 | 1 | 0 | 1 | 32 | 0 | 5 |
| 5:15 PM | 5:30 PM | 0 | 0 | 4 | 3 | 0 | 2 | 18 | 0 | 2 | 0 | 0 | 0 | 2 | 19 | 0 | 2 |
| 5:30 PM | 5:45 PM | 0 | 0 | 6 | 2 | 0 | 2 | 28 | 0 | 1 | 0 | 2 | 0 | 1 | 20 | 0 | 6 |
| 5:45 PM | 6:00 PM | 0 | 0 | 2 | 4 | 0 | 4 | 14 | 0 | 1 | 0 | 1 | 1 | 1 | 10 | 0 | 2 |
| 6:00 PM | 6:15 PM | 0 | 0 | 4 | 2 | 0 | 3 | 14 | 1 | 0 | 0 | 0 | 1 | 0 | 13 | 0 | 5 |
| 6:15 PM | 6:30 PM | 0 | 0 | 5 | 3 | 1 | 6 | 9 | 1 | 1 | 1 | 0 | 1 | 0 | 7 | 0 | 1 |
| *Intersection PHV:* | | | *0* | *26* | *26* | | *26* | *216* | *1* | | *1* | *2* | *6* | | *120* | *1* | *24* |
| *PHF:* | | | *0.00* | *0.72* | *0.54* | | *0.81* | *0.69* | *0.25* | | *0.25* | *0.25* | *0.50* | | *0.77* | *0.25* | *0.75* |
| *Intersection Peak Hour: 4:00 PM - 5:00 PM* | | | | | | | | | | | | | | | | *Intersection PHF: 0.79* | |
| **Study Area PHV:** | | | **0** | **26** | **26** | | **26** | **216** | **1** | | **1** | **2** | **6** | | **120** | **1** | **24** |
| **PHF:** | | | **0.00** | **0.72** | **0.54** | | **0.81** | **0.69** | **0.25** | | **0.25** | **0.25** | **0.50** | | **0.77** | **0.25** | **0.75** |
| **Study Peak Hour: 4:00 PM - 5:00 PM** | | | | | | | | | | | | | | | | **Study Area PHF: 0.79** | |

Observations:

DeShazo Group

File: C2X3HRS - 4L&12Mv_Peds.XLS