



Technical Memorandum

To: Karl Crawley — Masterplan Consultants
From: David Nevarez, PE, PTOE — DeShazo Group, Inc.
Date: April 19, 2017
Re: Traffic Management Plan for H. I. Holland Elementary School at Lisbon in Dallas, Texas
DeShazo Project Number 17046

INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm providing professional services in traffic engineering, transportation planning and related fields. Masterplan Consultants retained the services of DeShazo on behalf of the Dallas Independent School District (DISD) to provide a requisite Traffic Management Plan (TMP) for H. I. Holland Elementary School at Lisbon. The school is located at 4203 S Lancaster Road in Dallas, Texas.

At the time of this study, the school had an enrollment of 352 students in Pre-K through 5th grade. The school is undergoing renovations mainly attributed to additional classroom space with no change to student capacity. A proposed site plan showing proposed building modifications is attached as reference.

The school site is zoned Commercial Retail (CR) and Single Family Residential [R-7.5(A)]. In order to gain entitlements for the proposed improvements, the school administration is seeking approval of a change to the development plan. As part of the approval process, the City of Dallas requires a TMP as a record of the preferred traffic control strategies and to ensure overall traffic safety and efficient operations. The plan is intended to assess anticipated traffic conditions during the morning drop-off and afternoon pick-up activities on the basis of satisfying these objectives. By consent of the TMP submittal, the school agrees to the strategies presented herein. In addition, the school is held self-accountable to enforce the plan until and unless the City of Dallas deems further mitigation measures are necessary.

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 vehicular traffic generated during the critical periods, the safety and efficiency of other modes of travel — including walking — will also inherently improve while the operational impact on the public street system is minimized. **The TMP is a tool a tool to facilitate a safer and more efficient environment; it should not be considered a comprehensive set of instructions to ensure adequate safety.**

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

School Operational Characteristics

Table 1 provides a summary of the known operational characteristics for the school.

Table 1. School Operational Characteristics

Enrollment:	Pre-K:	44 students
	Kindergarten:	47 students
	1 st Grade:	63 students
	2 nd Grade:	58 students
	3 rd Grade:	53 students
	4 th Grade:	48 students
	5 th Grade:	39 students
		<i>Total: 352 students</i>
Daily Start/End Schedule	>Start: 7:55 AM	>End: 2:55 PM
Approximate Percentage of Students Travelling by Mode Other Than Drop-off/Pick-up:	By Daycare/Van: \cong 5% (~19 Students)	
	By Walking: \cong 5% (Observed)	

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 conditions and from personal interviews of school representatives.

Existing Site Access and Circulation

The school provides parking lots for faculty and staff only on S Lancaster Road and Paducah Avenue. During afternoon peak hours, a third parking lot located at the east corner of the school provides parking for parents. Traffic operations concentrate in the perimeter of the school with a significant number of vehicles parked on both sides of Paducah Avenue. The majority of parents arrive from the south of the school traveling northbound on S Denley Drive and turning left on Paducah Avenue, a one-way (eastbound) street during school arrival and dismissal periods. Once the parents park, they either cross the street to pick up students or wait for students to be dismissed. A school van parks eastbound on Paducah Avenue without a designated loading area.

Passenger Unloading/Loading and Vehicle Queuing

DeShazo conducted field observations during typical school-day conditions on Wednesday, April 12, 2017. The peak number of parent-vehicles on site was quantified during the afternoon pick-up period. The total maximum vehicular accumulation peaked with 55 vehicles around the school.

The school provides enough on-site capacity for a maximum accumulation of 46 vehicles as depicted in Exhibit 1. The designated areas for queuing operations is considered adequate upon enforcement of an active traffic management plan based on studies of other schools with similar enrollment characteristics.

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Recommendations to Facilitate Queuing Operations

The school administration should immediately implement an active management of student loading to expedite queuing operations and reduce the maximum accumulation of traffic. Queue pick-up participation is a challenge that schools in our community face constantly. Full cooperation of all school staff members, students and parents is crucial for the success of the systematic queue. Proper training of school staff 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 recommended.

The following recommendations are provided to school administration for the management of vehicular traffic generated by the school during peak traffic conditions. Generally, traffic delays and congestion that occurs during pick-up periods is notably greater than the traffic generated during the morning drop-off period due to timing and traffic concentration. In most instances, achieving efficiencies during the afternoon period is most critical, while the morning traffic operations require nominal active management.

Traffic Queue Operations

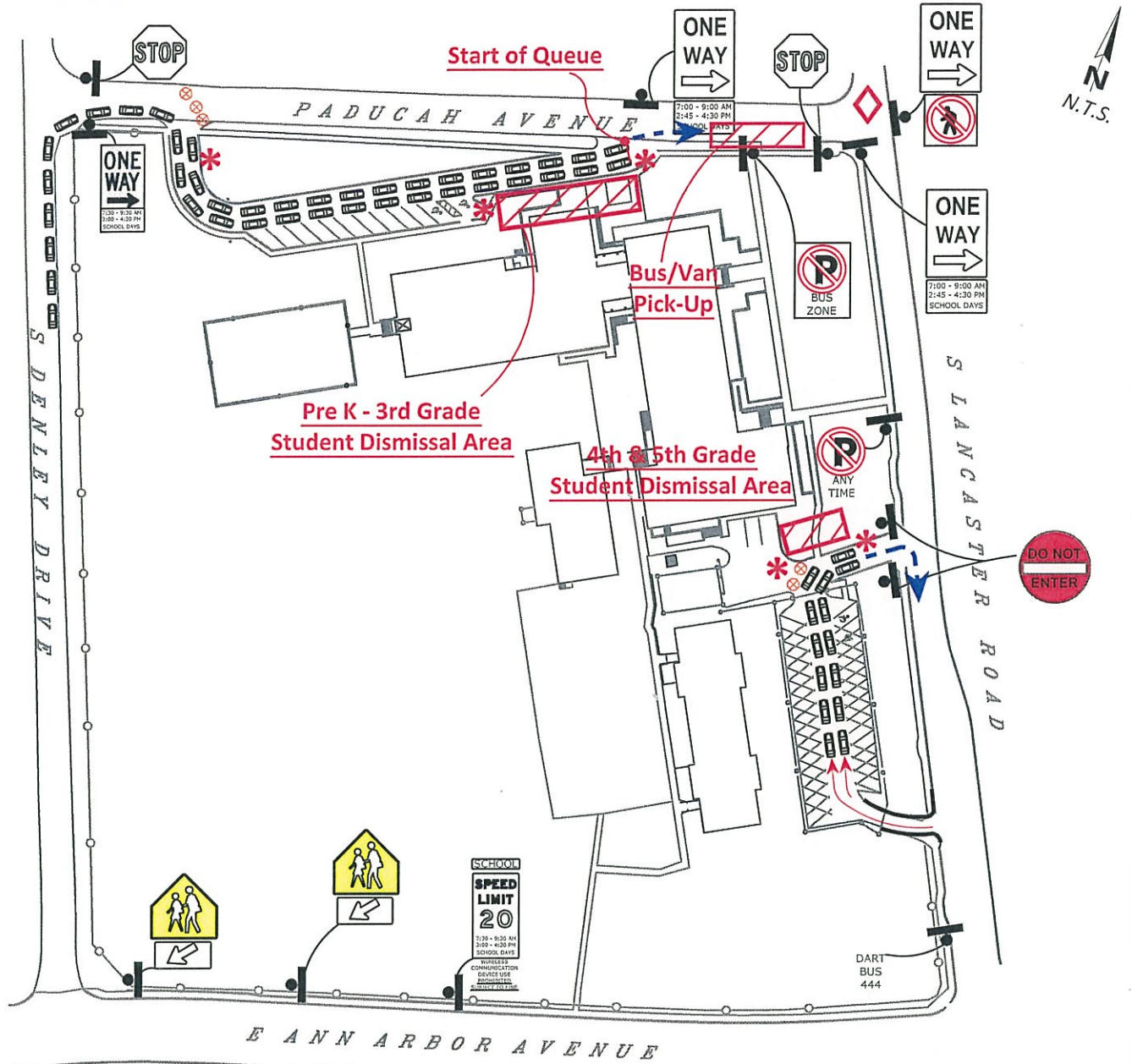
- As shown on **Exhibit 1**, parents picking up students in Pre-K through 3rd grade should immediately proceed to form a double queue upon arriving at the school during the afternoon pick-up period. The north end lot provides 729 linear feet of on-site queuing—enough capacity for a double queue for more than 31 vehicles. Parents for grades 4 and 5 should proceed to form a double queue in the staff lot on S Lancaster Road in a clockwise direction.

Student Safety

- Student safety should remain paramount at all times. School administration should remind students, parents and staff of their expectations relative to this traffic management plan continuously 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.
- There is no evidence of any students walking home after school. School administration should investigate *A Safe Routes to School* program for students to walk home or ride bikes safely.
- 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.

School Bus/Daycare Vans Operations

- All school and daycare bus/van pick-up activities should be designated at the loading zone located at the northeast corner of the school site as shown in **Exhibit 1**.



Queuing Summary

Student Group	Student Enrollment	Dismissal Time	Vehicular Traffic Demand	
			Provided*	Queue
Pre K - 3rd	265 Students 0% Bus 0% Walk	2:55 PM	Provided*	729 LF (31 cars)
			Projected	964 LF (41 cars)
			On-Street	235 LF (10 cars)
4th - 5th	87 Students 5% Bus 5% Walk	2:55 PM	Provided*	376 LF (16 cars)
			Projected	329 LF (14 cars)
			Surplus	47 LF (2 cars)

* Calculated upon enforcement of managed traffic operations
Vehicular queue calculated at 23.5 feet/passenger car based on field observations.

Legend

- * - School Staff
- ▨ - Student Pick - Up
- ◇ - School Crossing Guard
- - Traffic Signs (Existing)
- ➡ - Outbound Queue
- ➠ - Inbound Queue
- ⊗ - Traffic Cones

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.

I, David Nevarez, P.E. #106200, certify that site constraints preclude the school's ability to accommodate vehicular queue on-site. While it may not be feasible to eliminate queuing in public rights-of-way, establishing a designated school route will lessen impact to neighborhood as well as background traffic on the main roads. This option is subject to approval by the City of Dallas Mobility and Street Services Department.

EXHIBIT 1

Traffic Management Plan
DISD H. I. Holland Elementary School at Lisbon
4203 S Lancaster Road, Dallas, TX 75216

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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