



Technical Memorandum

To: Karl Crawley — Masterplan Consultants
From: David Nevarez, PE, PTOE — DeShazo Group, Inc.
Date: May 23, 2017
Re: Traffic Management Plan for DISD J. L. Long Middle School in Dallas, Texas
DeShazo Project Number 17005

Planned Development
District No. 543

Approved
City Plan Commission
June 8, 2017

INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm providing professional service 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 J. L. Long Middle School. The school is located at 6116 Reiger Avenue in Dallas, Texas.

At the time of this study, the school had an enrollment of 1,372 students in 6th through 8th grade. The school is undergoing a revision of their existing plan. Proposed changes are mainly attributed to additional classrooms with no change to student capacity. A proposed site plan showing proposed building modifications is attached as reference.

The school site is zoned Planned Development [PD] District 543. 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, and the operational impact on the public street system should also be minimized. **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 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 summarizes the known operational characteristics for J. L. Long Middle School assumed in this analysis:

Table 1. School Operational Characteristics

Enrollment:	6 th – 8 th Grade > 1,271 students
Daily Start/End Schedule:	> Start: 8:35 AM > End: 3:45 PM
Approximate Number of Students	By School Bus: \cong 10% (~130 students)
Travelling by Mode Other Than Drop-off/Pick-up:	By Self-Driving: \cong 0% By Walking: \cong 0%
Approximate Number of Students with Alternate Schedules:	Extracurricular Activities: \cong 10% (~130 students)

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.

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.

Site Access and Circulation

The subject site provides a parking area for faculty and staff, which is accessed from N Paulus Avenue and Covington Lane. During the afternoon dismissal period, parents park on street in the vicinity of the school and wait for students. School buses load within the faculty and staff parking lot. Buses enter the parking lot at the west end of the parking lot on N Paulus Avenue and exit at the east end onto N Paulus Avenue. Most of the buses come from the south of the site heading northbound on Reiger Avenue, which operates as a one-way (northbound) operation from Glasgow Drive to N Paulus Avenue during school peak periods.

Passenger Unloading/Loading and Vehicle Queuing

DeShazo conducted field observations during typical school-day conditions on Thursday, January 19 and Tuesday, February 14, 2017. The peak number of parent-vehicles on site was quantified during the afternoon pick-up period. A summary of the peak number of vehicles is provided in **Table 2**.

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

# of Students	Max. Vehicle Accumulation (Observed)*
~1,017 students** (or 80% of student pop.)	Approx. 113 parent vehicles, plus 10 school buses and one van/shuttle

* Includes vehicles on- and off-site at time of peak demand, including vehicles in queue, standing, and/or parked.

** See Table 1 above

The school provides designated loading areas along the south side of N Paulus Street between Reiger Avenue and Covington Lane. However, the number of parents picking up students exceeds the designated capacity. Parents also park on the north side of N Paulus Avenue, on both sides of Glasgow Drive, Reiger Avenue and Covington Lane as well as the south side of Slaughter Avenue. Generally, the center lane of all one-way streets remains available for passing traffic.

Recommendations to Facilitate Queue Operations

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 also 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.

- DeShazo recommends the implementation of the traffic circulation plan depicted in **Exhibit 1** based upon a detailed review of existing traffic conditions.
- All outbound school buses should proceed directly onto Covington Lane to avoid mixing with pedestrian and vehicular traffic congestion on N Paulus Avenue.
- Small school buses and vans should continue to load on-site; all other vehicles should be restricted access from entering the faculty and staff parking lot. However, large school buses should load on N Paulus Avenue as shown in **Exhibit 1** and **Exhibit 2**.
- Staff should continue to direct traffic and coordinate the loading of students on school property. However, only DISD police and/or deputized officers of the law should engage or attempt to influence traffic operations in public streets. There should be an adult school crossing guard present at the intersection of N Paulus Avenue and Reiger Avenue to guide and direct traffic.
- There is no clear evidence of any students walking home after school; school administration should investigate potential opportunities to encourage students to walk home.
- 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 & RECOMMENDATIONS

This TMP is to be used by DISD J. L. Long Middle School to provide safe and efficient transportation of students, staff, and faculty. 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



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Queuing Summary

Student Group	School Timings & Number of Students	Vehicular Demand	
Grades 6 - 8	8:35 AM to 3:45 PM 1,372 Students	Provided	2,676 LF (113 cars)
		Required	2,676 LF (113 cars)
		Surplus	0 LF (0 cars)

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

Legend

- * - School Staff
- - - - - Bus Route
- - On-Street Parking
- ◇ - School Crossing Guard
- ▨ - Loading Area
- ⊗ - Traffic Cones
- ⬮ - Traffic Signs
- ▤ - Small (Short) Bus Loading Area
- ▥ - Large (Long) Bus Loading Area

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 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 Street Services Department.

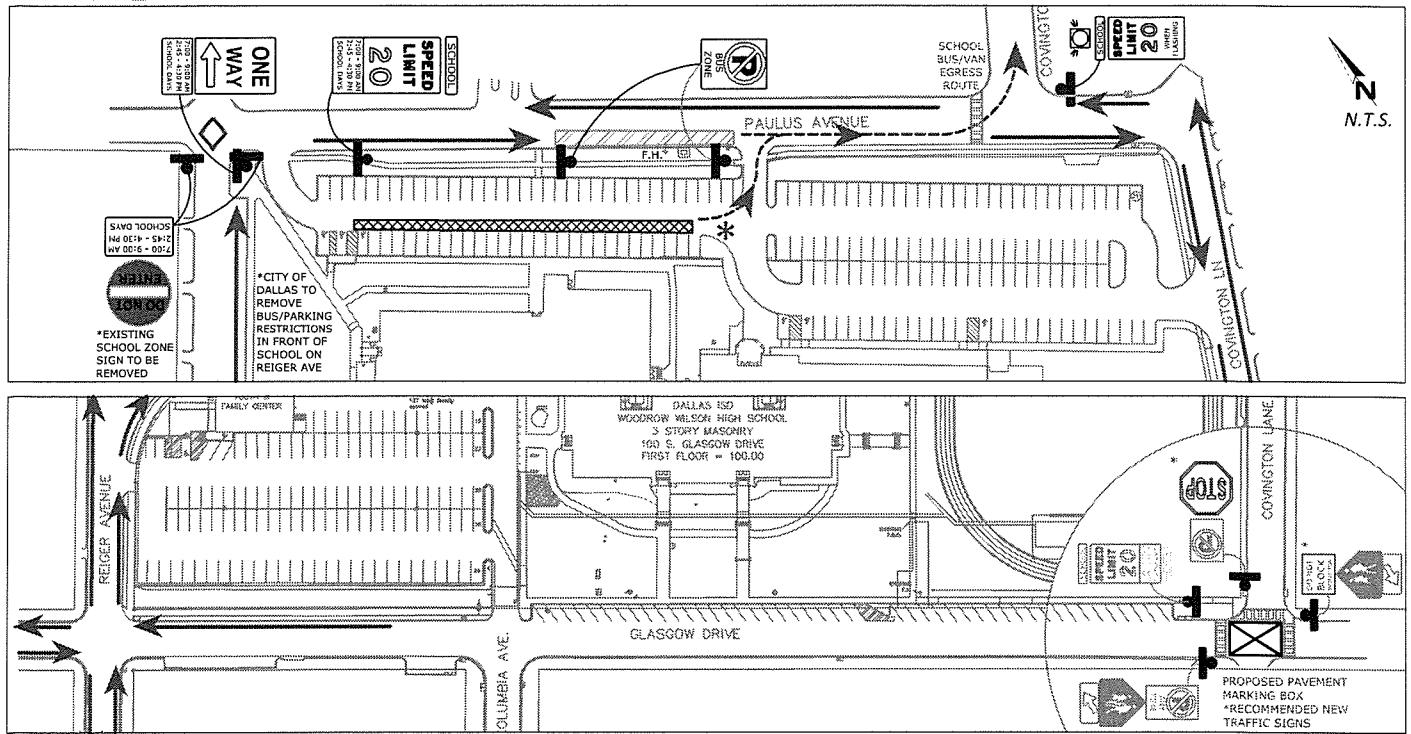
EXHIBIT

1

Traffic Management Plan

DISD J. L. Long Middle School
6116 Reiger Avenue, Dallas, Texas

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



Queuing Summary

Student Group	School Schedule	Vehicular Queue	
Grades 6 - 8 (1,372 Students)	8:35 AM to 3:45 PM	On-Street	2,676 LF (113 cars)
		Observed	2,676 LF (113 cars)
		Surplus	0 LF (0 cars)

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

Legend

- * - School Staff
- - - - - Bus Route
- - On-Street Parking
- ◇ - School Crossing Guard
- ⊗ - Traffic Cones
- Ⓢ - Traffic Signs
- ⊞ - Small (Short) Bus Loading Area
- ▨ - Large (Long) Bus Loading Area

The purpose of this Traffic Management Plan (TMP) is to evaluate traffic operations that promote safety and efficient vehicle circulation. School administration should adhere to this TMP. Any deficiency due to spillover of queuing into undesignated areas of the city rights-of-way should be corrected by the school immediately.

This exhibit is not a comprehensive inventory of traffic signs.

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 Street Services Department.

EXHIBIT

2

Traffic Management Plan

DISD J. L. Long Middle School
6116 Reiger Avenue, Dallas, Texas

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



Traffic. Transportation Planning. Parking. Design.

DeShazo Group

30535

Exhibit 543B

2 of 2

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Technical Memorandum

To: Karl Crawley — Masterplan Consultants
From: David Nevarez, PE, PTOE — DeShazo Group, Inc.
Date: May 23, 2017
Re: Traffic Management Plan for DISD Woodrow Wilson High School in Dallas, Texas
DeShazo Project Number 17004

Planned Development
District No. 543

Approved
City Plan Commission
June 8, 2017

INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm providing professional service 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 DISD Woodrow Wilson High School. The school is located at 100 S Glasgow Drive in Dallas, Texas.

At the time of this study, the school had an enrollment of 1,804 students in 9th through 12th grade. The school is undergoing a revision of their existing plan. Proposed changes are mainly attributed to additional classrooms with no change to student capacity. A proposed site plan showing proposed building modifications is attached as reference.

The school site is zoned Planned Development [PD] District 543. 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, and the operational impact on the public street system should also be minimized. **This 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 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 summarizes the operational characteristics for Woodrow Wilson High School assumed in this analysis:

Table 1. School Operational Characteristics

Enrollment:	9 th – 12 th Grade > 1,804 students
Daily Start/End Schedule:	> Start: 9:05 AM > End: 4:15 PM
Approximate Number of Students Travelling by Mode Other Than Drop-off/Pick-up:	By School Bus: \cong 20% (~325 students) By Self-Driving: < 10% (~105 students) By Walking: \cong 0%
Approximate Number of Students with Alternate Schedules:	Extracurricular Activities: \cong 10% (~170 students)

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.

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.

Site Access and Circulation

The school provides student parking in front of the school off Reiger Avenue. No off-street area is available for student loading and unloading—all traffic activities take place within public right-of-way. School buses also operate clockwise in the perimeter of the student parking lot at the front of the school. Buses enter the parking lot at the north driveway on Reiger Avenue and exit at the south driveway. Most school buses arrive from the south of the site, heading northbound on Reiger Avenue, which operates as a one-way (northbound) operation from Glasgow Drive to N Paulus Avenue during school peak periods.

Passenger Unloading/Loading and Vehicle Queuing

DeShazo conducted field observations during typical school-day conditions on Thursday, January 19 and Tuesday, February 14, 2017. The peak number of parent-vehicles on site was quantified during the afternoon pick-up period. A summary of the maximum number of vehicles is provided in **Table 2**.

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

# of Students	Max. Vehicle Accumulation (Observed)*
~1,020 students** (or 60% of student pop.)	Approx. 128 parent vehicles, plus 13 school buses plus 105 student vehicles

* Includes vehicles on- and off-site at time of peak demand, including vehicles in queue, standing, and/or parked.

** See Table 1 above

In order to accommodate school traffic demands during peak periods, parents park in the perimeter of the school on both sides of Reiger Avenue and Glasgow Drive. Some parents also choose to park available on-street parking spaces designated for students or at the lot directly across the street at the southeast corner of the Columbia Avenue and Glasgow Drive intersection.

Summary of Traffic Queue Operations

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 on their duties and expectations pertaining to this 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.

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.

- DeShazo recommends the implementation of the traffic circulation plan depicted in **Exhibit 1** based upon a detailed review of existing traffic conditions.
- School buses should continue to operate on-site; all other vehicles should be restricted access from entering the school driveway and student parking lot.
- Staff should continue to direct pedestrian traffic. However, only DISD police and/or deputized officers of the law should engage or attempt to influence traffic operations in public streets. There should be an adult school crossing guard present at the intersection of Reiger Avenue and Glasgow Drive and a second guard at the intersection of Reiger Avenue and Slaughter Avenue to guide and direct traffic.
- There is no clear evidence of any students walking home after school. School administration should investigate potential opportunities to encourage students to walk home.
- 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 & RECOMMENDATIONS

This TMP is to be used by DISD Woodrow Wilson High 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



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 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 Street Services Department.

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