

TRAFFIC MANAGEMENT PLAN FOR

DISD IGNACIO ZARAGOZA ELEMENTARY SCHOOL

DALLAS, TEXAS

DeShazo Project No. 16113

Z156-356 (JM)

Prepared for:

Masterplan

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August 30, 2016



Traffic Management Plan for
Ignacio Zaragoza Elementary School

~ DeShazo Project No. 16113 ~

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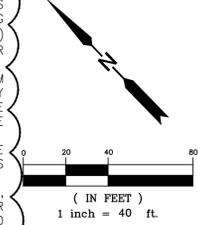
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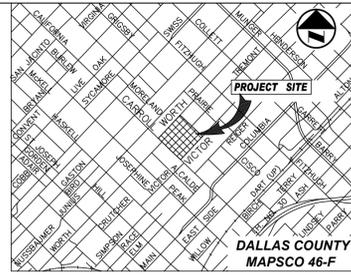
Infrastructure Notes

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF DALLAS DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION ADDENDUM AND PAVEMENT CUT AND REPAIR STANDARD MANUAL OF PUBLIC WORKS AND TRANSPORTATION DATED OCTOBER 2003.
2. DURING THE CONSTRUCTION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THESE IMPROVEMENTS, ANY INTERPRETATION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, AND ANY WATER WHICH REQUIRES THE APPROVAL OF THE OWNER, MUST BE APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORTATION OR HIS DESIGNEE BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES. ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.
3. FOR ADJUSTMENT OF DALLAS WATER UTILITIES APPURTENANCES OR TO VERIFY LOCATIONS OF EXISTING WATER AND WASTEWATER MAINS IN AREA, CALL (214) 670-1770 AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION.
4. STREETS, ALLEYS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CITY OF DALLAS, STANDARD CONSTRUCTION DETAILS, FILE 251D-1, LATEST EDITION.
5. ALL CONCRETE PAVEMENT WITHIN CITY ROW SHALL BE 4000 PSI FOR MACHINE FINISH AND 4500 PSI IF IT IS NECESSARY FOR HAND FINISH.
6. NO PERSON SHALL CONSTRUCT, RECONSTRUCT, ALTER, REPAIR, REMOVE, REPLACE, PAVE, REPAVE, SURFACE OR RESURFACE ANY WALK, DRIVE, CURB, GUTTER, PAVED AREA OR APPURTENANCE ON PUBLIC PROPERTY IN THE CITY WITHOUT FIRST OBTAINING FROM THE BUILDING INSPECTOR A PERMIT SO TO DO.
7. SAWCUT LINES SHOWN ON THE DESIGN PLANS FOR THE REMOVAL AND REPLACEMENT OF CONCRETE PAVEMENT, DRIVES, SIDEWALKS, ETC. ARE FOR INFORMATIONAL PURPOSES ONLY. IF PAVEMENT IS MORE THAN 5 YEARS OLD, THE PAVEMENT CUT AND REPAIR STANDARDS MANUAL MUST BE FOLLOWED. IF PAVEMENT IS 5 YEARS OLD OR LESS, THE ENTIRE CONCRETE PANEL MUST BE REPLACED.
8. NO TRAFFIC LANE OR SIDEWALK ALONG ANY PUBLIC STREET OR ALLEY IS TO BE CLOSED WITHOUT FIRST OBTAINING THE APPROPRIATE PERMIT(S) FROM PAUL THOMPSON (469-583-3654, NORTH), WITH THE CITY OF DALLAS. PUBLIC WORKS AND TRANSPORTATION OPERATIONS, CLOSURE OF ANY TRAFFIC LANE MUST BE RESTRICTED TO THE HOURS OF 9:00 AM TO 3:30 PM WORKDAYS.



Benchmarks

- BM 1 REFERENCE BENCHMARK - CITY OF DALLAS WATER DEPARTMENT BENCHMARK BEING A BOX CUT ON CURB RADIUS AT THE SOUTHWEST CORNER OF THE CARROLL AVENUE AND WORTH STREET. ELEV=478.18
- BM 2 " □ " CUT SET ON BACK OF CURB LOCATED ON THE EAST SIDE OF CARROLL AVENUE, BEING ±295 NORTH OF THE CENTERLINE INTERSECTION OF CARROLL AVENUE AND VICTOR STREET. ELEV=475.34
- BM 3 " □ " CUT SET ON BACK OF CURB LOCATED ON THE NORTH SIDE OF WORTH STREET, BEING ±425 FEET EAST FROM THE CENTERLINE INTERSECTION OF CARROLL AVENUE AND WORTH STREET AND ALSO ±2 FEET SOUTH OF A POWER POLE NO. 4533. ELEV=480.37

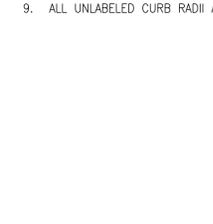


CALL BEFORE YOU DIG!
 TEXAS ONE CALL PARTICIPANTS REQUEST
 48 HOURS NOTICE BEFORE YOU DIG, DRILL,
 OR BLAST - STOP CALL
 Texas One Call System
 1-800-DIG-TESS

UTILITY LOCATION NOTE:
 THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND BASED ON EXISTING PLANS AND DATA FURNISHED BY UTILITY COMPANIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES THAT MAY CONFLICT WITH CONSTRUCTION. CALL 1-800-344-8377 TWO WORKING DAYS PRIOR TO CONSTRUCTION FOR ONSITE LOCATIONS. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE, AT NO ADDITIONAL COST.

Dimensional Control Notes

1. EXISTING TOPOGRAPHIC SURVEY AND LOCATION OF PHYSICAL FEATURES WERE OBTAINED FROM A TOPOGRAPHIC SURVEY PERFORMED BY PACHECO KOCH DATED NOVEMBER 14, 2014.
2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY ARISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR CONSTRUCTION OF THIS PROJECT.
4. PERMANENT PAVEMENT SHALL NOT BE PLACED UNTIL ALL SLEEVING FOR ELECTRIC, GAS, TELEPHONE, CABLE TV, SITE IRRIGATION, ETC HAS BEEN INSTALLED.
5. ALL PAVING AND EARTHWORK OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND MAINTAINING ALL SIGNS, BARRICADES, AND LIGHTING OR WARNING DEVICE(S) USED/REQUIRED WITH THIS WORK.
7. FIRE LANES SHALL BE STRIPED IN ACCORDANCE WITH THE CITY REQUIREMENTS. ALL OTHER SIGNS AND PAVEMENT MARKINGS TO BE PER TXMUTCD.
8. ALL CURB DIMENSIONS ARE TO FACE OF CURB, FACE OF BUILDING, OR AS OTHERWISE NOTED. REFER TO LANDSCAPE PLANS FOR BUILDING, PLAYGROUND AND COURT DIMENSIONS.
9. ALL UNLABELED CURB RADI ARE 2.0 FEET.



C1.00

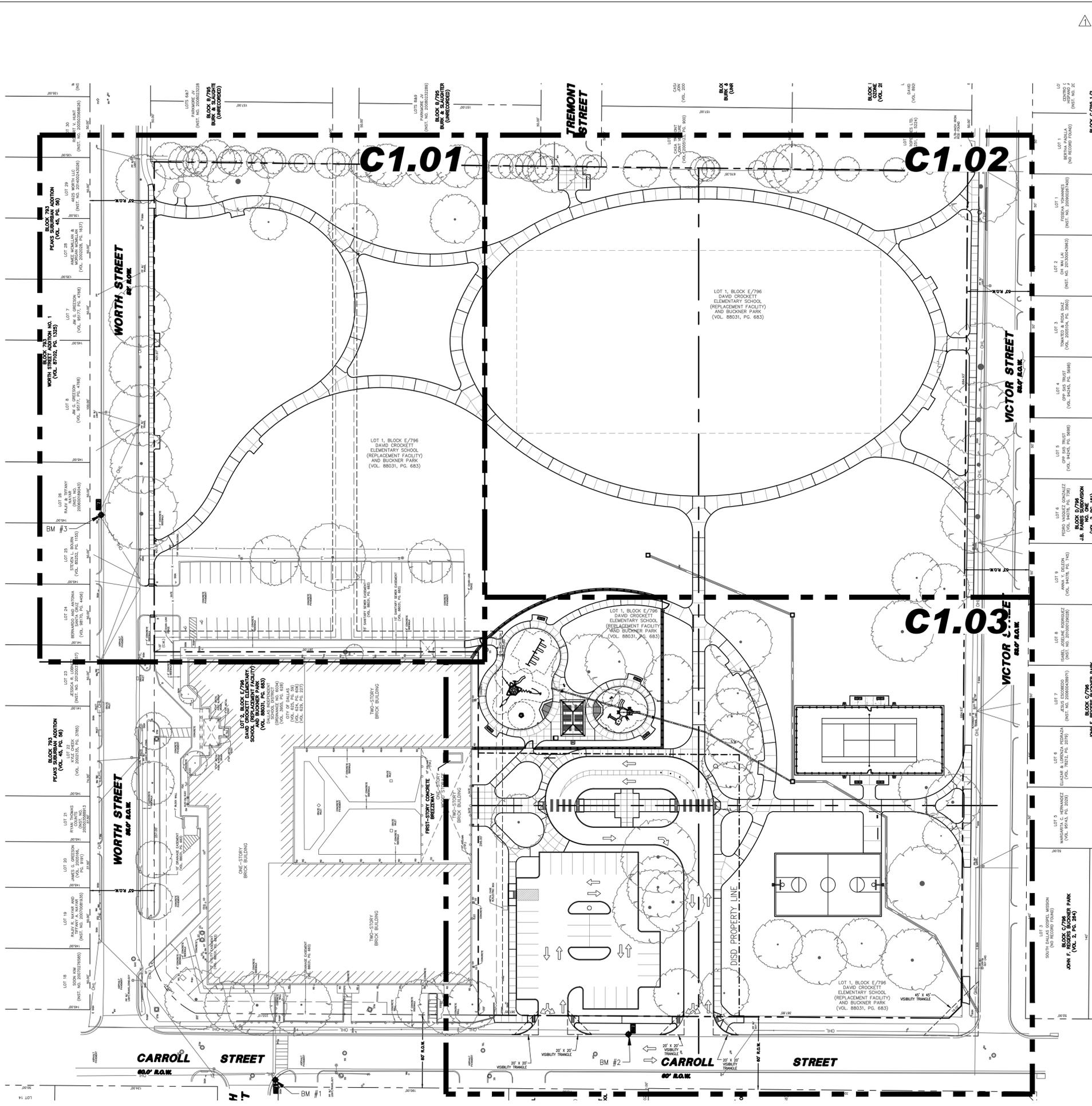
OWNER: Department of Park and Recreation City of Dallas, TX

CIVIL ENGINEER: **UEG** urban | engineers | group
 1677 North Creek Blvd., Suite 400
 Dallas, Texas 75201
 (214) 262-1600
 www.urbanengineersgroup.com
 firm registration no: F5332

OVERALL DIMENSIONAL CONTROL PLAN
 BUCKNER PARK IMPROVEMENTS
 CITY OF DALLAS PARK DEPARTMENT
 N. CARROLL AVENUE AND VICTOR STREET
 CITY OF DALLAS, TEXAS

FAISAL S. SYED
 84833
 PROFESSIONAL ENGINEER
 LICENSE NO. 08012016

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
UEGi	UEGi	Aug 2016			311T	9116



Technical Memorandum

To: Karl Crawley — Masterplan
From: David Nevarez, P.E. — DeShazo Group, Inc.
Date: August 30, 2016
Re: Traffic Management Plan for DISD Ignacio Zaragoza Elementary School in Dallas, Texas
*DeShazo Project Number 16113 ; **Z156-356***

INTRODUCTION

DeShazo Group, Inc. (DeShazo) is an engineering consulting firm providing licensed engineers skilled in the field of traffic/transportation engineering. The services of DeShazo were retained by Masterplan on behalf of the Dallas Independent School District (DISD) to provide a requisite Traffic Management Plan (TMP) for Ignacio Zaragoza Elementary School. The school site is located at 4550 Worth St in Dallas, Texas.

The school has an enrollment of 385 students in Pre-kindergarten through 5th grade. Buckner Park, which is the adjacent property, has proposed renovations including a driveway to the existing school. The school, however, does not anticipate any increase in student enrollment as a result of the proposed park renovations. The proposed site plan prepared by Urban Engineers Group is attached as reference.

The school site is zoned Planned Development (PD) District 248. In order to gain entitlements for the proposed improvements, the school administration is required submit 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.

[NOTE: In this report the term “parent” refers to any parent, family member, legal guardian, or other individual who is involved in the pick-up or drop-off 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 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 Ignacio Zaragoza Elementary School assumed in this analysis:

Table 1. School Operational Characteristics

	Existing Conditions	Proposed Condition
Enrollment:	PK - 5 th Grade, 385 students	<i>Same As Before</i>
Daily Start/End Schedule:	>Start: 7:55 AM >End: 2:55 PM	<i>Same As Before</i>
Approximate Number of Students Travelling by Mode Other Than Drop-off/Pick-up:	By School Bus/Van: \cong 5% By Walking: \cong 25% By Other: \cong 0%	<i>Same As Before</i>

NOTE #1: To the highest degree practical, the accounts of “existing conditions” presented in this report are based upon actual on-site observations conducted by DeShazo during typical school day(s) conditions and information provided by 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 site provides one parking lot for school staff at the northwest corner of the site. The site has a total of four driveways. The driveway on Carroll Street allows inbound and outbound access to Carroll Street. The south and central driveways on Worth Street act as inbound and outbound access, respectively. The north driveway on Worth Street provides access to the staff parking lot. Parents arrive at the school site and park on Carroll Street and Worth Street as shown in **Exhibit 1**. A significant number of parents walk to pick-up the students. A minimal number of parents drive into the staff parking lot and park.

The area between the south and central driveway on Worth Street is used by parents in the morning drop-off period and used as van loading area in the afternoon pick-up period. The school provides a loading area for vans at the south driveway on Worth Street during the afternoon pick-up period.

Passenger Unloading/Loading and Vehicle Queuing

DeShazo conducted interviews with school representatives to understand current traffic operations during school drop-off and pick-periods. DeShazo also quantified the peak number of vehicles in queue during a typical school-day afternoon pick-up period based on field observations conducted on August 26, 2016. Queuing and traffic congestion is appreciably more pronounced during the afternoon period. About 70 % of the student population is picked up by parents on personal vehicles. The vehicle accumulation count includes all vehicles in queue, or parked on- and off-campus. A summary of the peak number of vehicles is provided in **Table 2**.

A summary of the projected peak number of vehicles based on site modification is provided in **Table 2**.

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

Grades	# of Students	Peak Vehicle Demand (Observed)
Pre-K – 5 th	385 students	Approximately parent vehicles 45, and 2 school buses

Recommendations

The following recommendations are provided by DeShazo to school officials 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, except where stated otherwise, the recommendations provided herein pertain specifically to the afternoon period operations.

General Recommendations

- Staff participating in student drop-off/pick-up operations should, in lieu of simple hand gestures, continue to use reversible hand-paddle signs with the messages for STOP and for SLOW.
- Parents should be encouraged to park only along the school perimeter to improve student safety.
- Parking restrictions should be changed for school drop-off and pick-up period along the site perimeter.
- A formal request to the City of Dallas should be submitted to replace fading and old signs with new ones for better enforcement.
- 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.

Queue operations

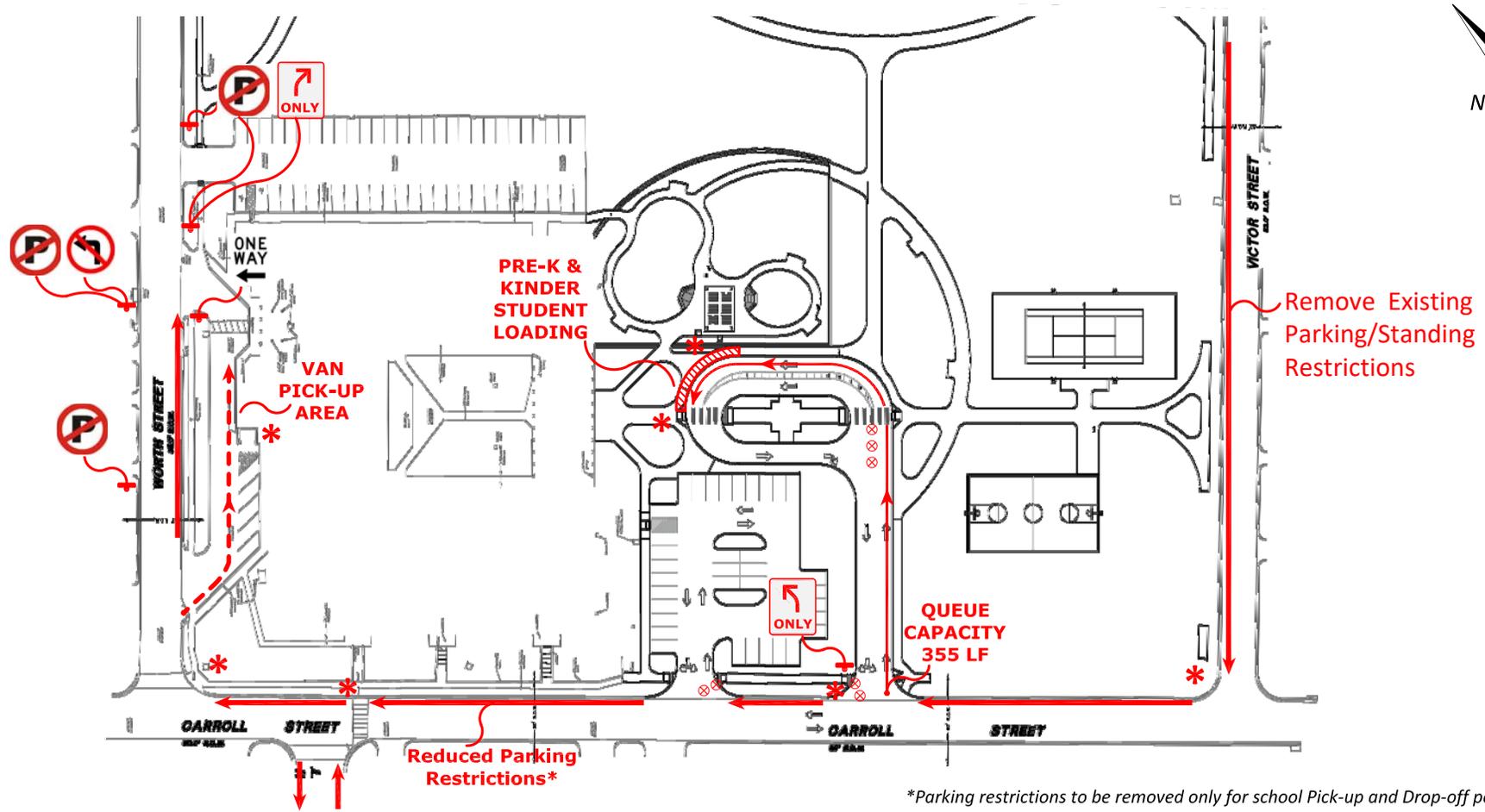
Based upon a review of the proposed site conditions and the anticipated needs of traffic during peak conditions DeShazo recommends full enforcement of the site traffic circulation plan depicted in **Exhibit 1**. This plan was designed with the intent of optimizing the site vehicular circulation, retention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

- The plan provides a designated off-street route for Pre-K and Kindergarten student drop-off and pick-up operations. The school provides 353 linear feet of vehicular queuing at the driveway on Carroll Street. This capacity accommodates a projected peak vehicle queue of 15 vehicles.
- School should implement an “In-Advance Passenger Identification System” to expedite queue operations for Pre-K and Kindergarten students. At the beginning of each school term (and as often as needed), parents should be issued hangtags with unique identification that pairs them with corresponding student(s). During the pick-up period, hangtags must be on display through the vehicle’s windshield while parents arrive at the pick-up areas. School staff should be positioned at strategic locations ahead of the loading area and relay the sequence of arrivals via hand radio while students are prepped for pick-up. With the assistance of other school staff stationed at the loading area, several vehicles should be loaded simultaneously. After loading, vehicles should be cleared by school staff to carefully exit the queue along the designated route.
- School should install Left-Only sign for outbound traffic at the proposed driveway on Carroll Street with the intention of guiding traffic away from on-street parking/queuing lane along the perimeter.
- Staff should continue install temporary traffic control devices (such as traffic cones, etc.) on the road to regulate on-street parking.

SUMMARY & RECOMMENDATIONS

This TMP is to be used by Ignacio Zaragoza Elementary 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



*Parking restrictions to be removed only for school Pick-up and Drop-off periods.

Queuing Summary

Student Group	Student Enrollment	Schedule	Traveling Modes	Vehicular Traffic Demand	
				Queue	Queue
A) PreK, Kinder	105 Students	7:55 AM-2:55 PM	Pick Up:	95%	Provided: 353 LF (15 cars)
			Van:	5%	Required: 353 LF (15 cars)
					Surplus: 0 LF (0 cars)
B) Grades 1st-5th	280 Students	7:55 AM-2:55 PM	Pick Up:	70%	On-Street: 776 LF (33 cars)
			Walk/Bike:	25%	Required: 776 LF (33 cars)
			Van:	5%	Surplus: 0 LF (0 cars)

Legend

- School Staff
- Loading Area
- Provided Queue
- Traffic Cones
- Van Route
- Traffic Sign (R3-5L) with times of day plaque (school hours)

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. Details of this plan 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.

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