

TRAFFIC MANAGEMENT PLAN FOR
DISD ALEX SANGER ELEMENTARY

DALLAS, TEXAS

DESHAZO PROJECT NO. 15234

Z145-285

Prepared for:

Masterplan

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May 11, 2016



Traffic Management Plan for
DISD Alex Sanger Elementary

~ DeShazo Project No. 15234 ~

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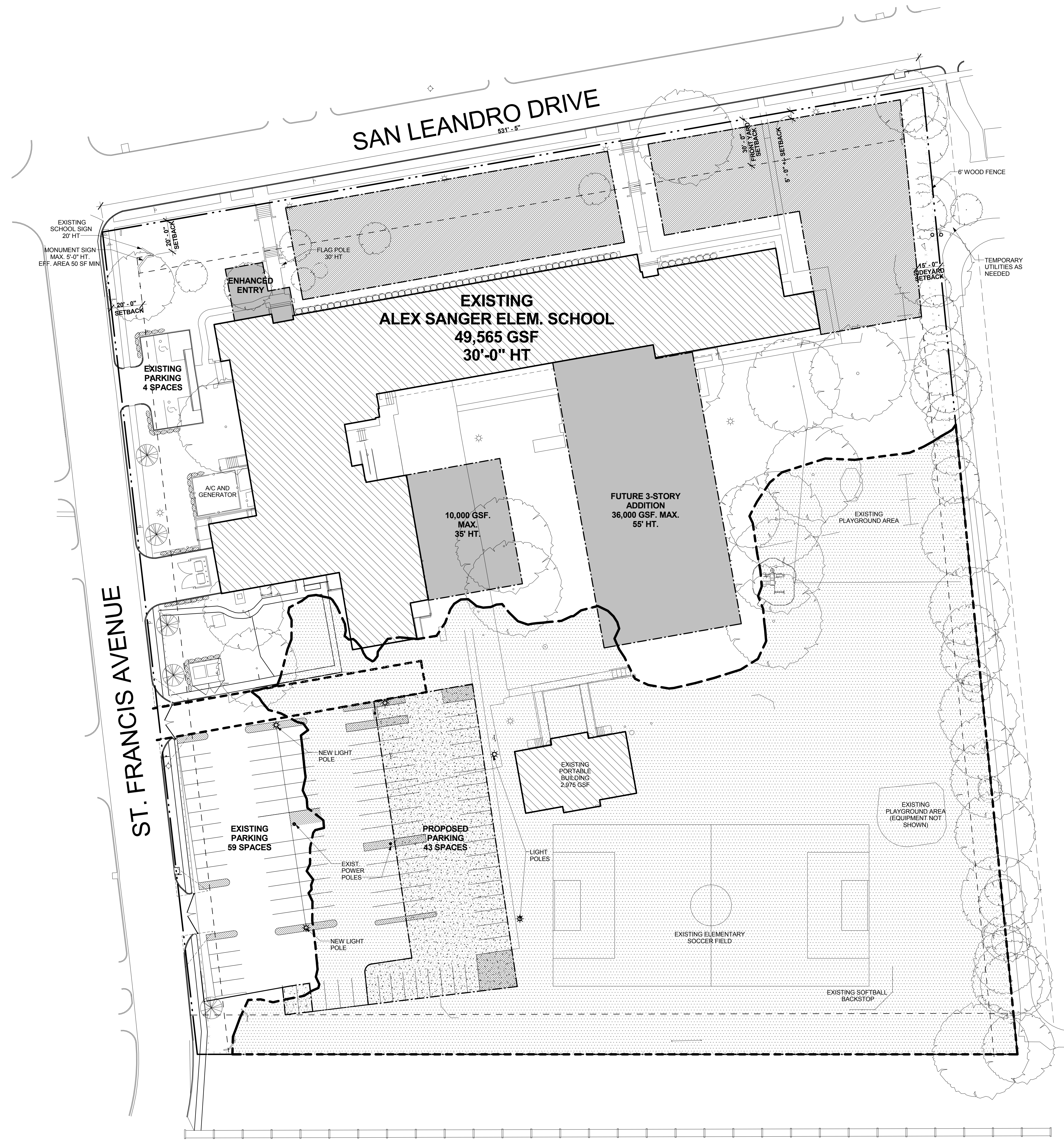
Table 1. Proposed School Operational Characteristics

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SITE ANALYSIS

ZONING: PD (PUBLIC SCHOOL)
 PROPOSED USE: PRE-K - 8 PUBLIC SCHOOL

NUMBER OF CLASSROOMS:
 ELEMENTARY: 44
 MIDDLE: 12

FLOOR AREA:
 EXISTING: 52,540 GSF
 PROPOSED: 46,000 GSF

PARKING:
 REQUIRED PARKING:
 ELEMENTARY: 66
 MIDDLE: 42
 TOTAL REQ'D: 106

EXISTING PARKING: 59 SPACES
 NEW PARKING: 43 SPACES
 TOTAL PARKING: 106 SPACES

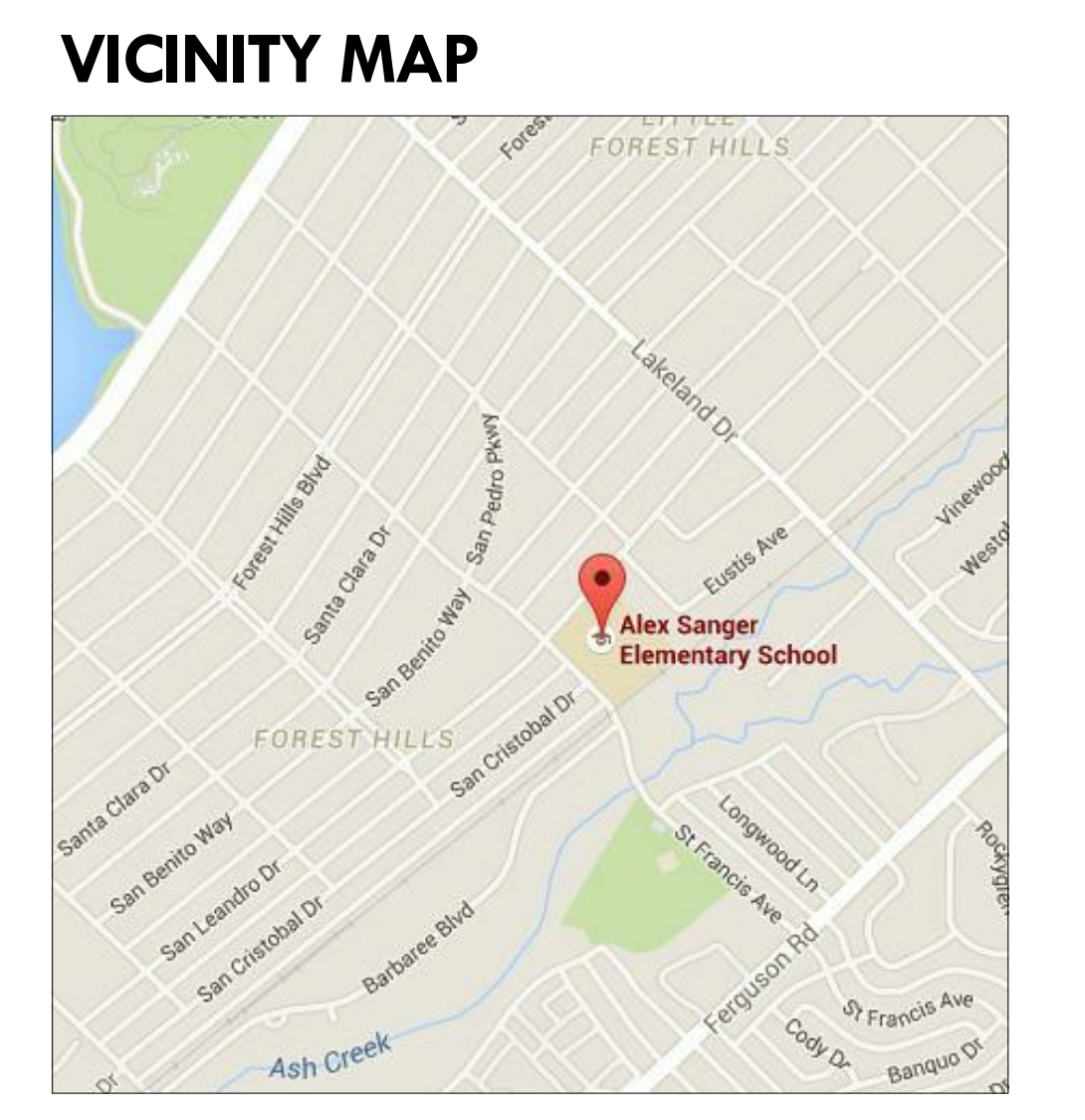
SETBACKS:
 REQUIRED PROVIDED
 FRONT YARD: 30' 30' / 20'
 SIDE YARD: 15' 15'

LOT COVERAGE: 25 %
 MAX. HEIGHT: 55'

SITE PLAN LEGEND

PATTERN	DESCRIPTION
	EXISTING CONSTRUCTION
	NEW CONCRETE PAVING
	PROPOSED CONSTRUCTION
	TEMPORARY CONSTRUCTION "SWING SPACE" PORTABLES
	LIMITS OF FLOOD PLAN
	EXISTING TREE TO REMAIN
	NEW 3" CALIPER TREE TO BE SELECTED FROM ARTICLE X APPROVED PLAN LIST
	EXISTING SHRUBS, 36" HT.
	NEW EVERGREEN BUSHES,

1 DEVELOPMENT / LANDSCAPE PLAN
 1" = 30'-0"
 TRUE NORTH



INTERIM REVIEW
 FOR COMMENTS
 NOT FOR PERMIT
 APPROVAL
 CONSTRUCTION
 CRAIG S. REYNOLDS
 TX REG. NO. 968

BROWN REYNOLDS WATFORD
 ARCHITECTS
 3535 TRAVIS STREET
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 DATE: 04/11/16
 DRAWN BY: CV
 CHECKED BY: AH, LWL
 BRW PROJECT NUMBER: 21508800

DISD ALEX SANGER
ELEMENTARY SCHOOL
 8410 SAN LEANDRO DR.
 DALLAS, TX 75218

NO.	REVISION	DATE

AS1.2

Technical Memorandum

To: Mr. Karl Crawley — *Masterplan*
From: David Nevarez, P.E. — *DeShazo Group, Inc.*
Date: May 11, 2016
Re: Traffic Management Plan for DISD Alex Sanger Elementary in Dallas, Texas
DeShazo Project Number 15234; Z145-285

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 prepare an update of the Traffic Management Plan (TMP) for the Alex Sanger Elementary School (the “School”) located at 8410 San Leandro Drive in Dallas, Texas.

The School has a current enrollment of approximately 600 students in Kindergarten through 6th grade. The school administration is planning a revision of their existing site plan. The proposed changes are attributed to additional didactical floor area and student enrollment up to 8th grade with an anticipated increase of approximately 150 students. However, this study considers a theoretical scenario with a maximum capacity of up to 900 students. The attached site plan includes the proposed building modifications.

The school site is zoned R-10(A) (or Single Family) Residential District and currently operates under a specific use permit. The school administration is seeking approval for a change to the development plan. In order to gain entitlements for the proposed improvements, the City of Dallas requires submittal of a TMP update as a record of the preferred traffic control strategies and to ensure overall traffic safety and efficient operations.

This report contains DeShazo’s review of the current traffic conditions on and around the school campus as well as an evaluation of the proposed conditions. The plan is intended to assess anticipated traffic conditions during the School peak activities. By consent of the TMP submittal, the school agrees to the strategies presented herein. 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 operations. By properly managing the vehicular traffic generated during critical periods, the safety and efficiency of school carpool operations will also inherently improve. This TMP should not be considered a comprehensive set of instructions to ensure adequate safety; however, it is a tool that aims to facilitate a safer and more efficient environment.

DeShazo conducted field observations of the school on Thursday, December 10, 2015 and throughout the month of April. This analysis identifies the projected vehicle demand—including parking and queuing space (i.e. vehicle stacking)—needed on site to accommodate projected school traffic demands during peak 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 use of designated parking and queuing areas is necessary to minimize the operational impact on adjacent properties and the public street system.

School Operational Characteristics

Table 1 summarizes the proposed operational characteristics for *DISD Alex Sanger Elementary*.

Table 1. Proposed School Operational Characteristics

Student Grade	Daily Start	Daily Dismissal	Student Enrollment	Bus Ridership
<i>Student Loading Zone A</i>				
Pre-K	7:55 AM	2:50 PM	105	0 (0%)
Kinder	7:55 AM	3:00 PM	145	36 (25%)
3 – 5 th	7:55 AM	3:15 PM	210	55 (25%)
<i>Student Loading Zone B</i>				
1 – 2 nd	7:55 AM	3:00 PM	220	55 (25%)
6 – 8 th	7:55 AM	3:15 PM	220	55 (25%)
Totals:			900	200 (22%)

SOURCE: School administration on March 28, 2016

Site Access

The School is located at the corner of St. Francis Avenue and San Leandro Drive. Both adjacent public streets are two-lane, undivided roadways and approximately 34-feet wide. San Leandro Drive currently operates as a one-way (eastbound) traffic during school morning and afternoon peak hours. This operation allows the segment of San Leandro Drive to accommodate up to four lanes of traffic: on-street traffic on each curb, one double lane of queuing and a third lane for through traffic. School buses load students from the curb adjacent to the school on St. Francis Avenue. School staff places temporary traffic cones to reserve the space for three DISD school buses in advance to student dismissal times. Once loaded, school buses proceed to turn left onto San Leandro Drive, drive around the block to return to the intersection of San Cristobal Drive and St. Francis Avenue, where they turn right and proceed to leave the School site towards Ferguson Road.

Passenger Unloading/Loading and Vehicular Queuing

DeShazo conducted field observations on Thursday, December 10, 2015 and throughout the month of April. Observations of peak traffic associated with student pick-up activities indicate that most vehicles approach the School to load/unload students on San Leandro Drive. Some parents also park near the intersection of Whittier Avenue and San Leandro Drive and walk towards the school to greet their child(ren). Observations also indicate a maximum of approximately 90 vehicles on site at the same time. The School provides a loading station for students in front of the school along San Leandro Drive; conditions are generally orderly and any evidence of traffic congestion disappears in less than ten (or up to 15) minutes.

Recommendations

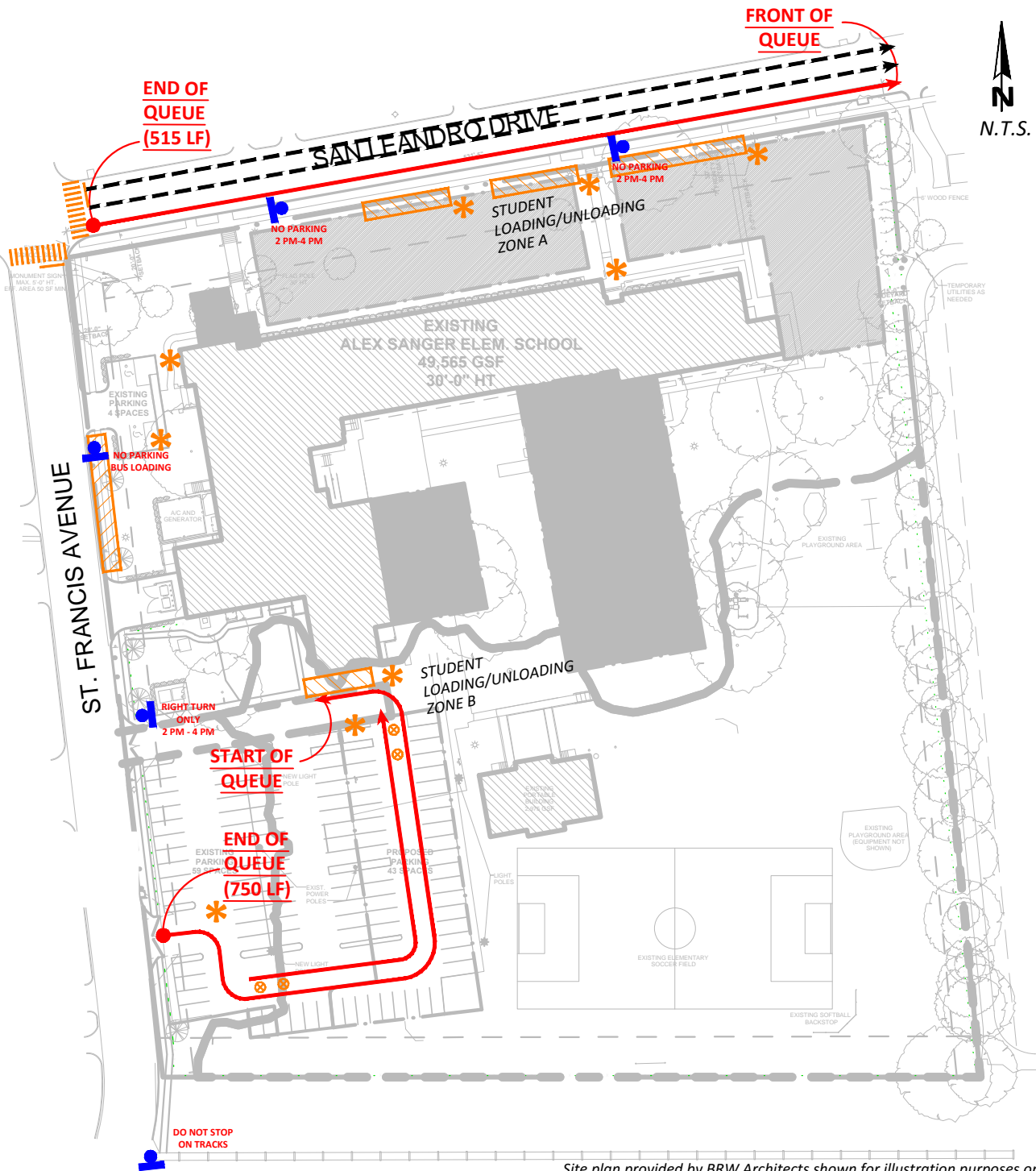
The following recommendations are provided by DeShazo to the school administration for the management of vehicular traffic generated by the school during afternoon peak traffic conditions.

1. School administration should stagger dismissal times as shown on **Table 1**. In addition, school should provide a separate area for pick-up operations for students in 1st – 2nd and 6 – 8th grade (namely Student Loading/Unloading Area B) as depicted on **Exhibit 1**. The proposed dismissal plan will significantly reduce the traffic queues that would otherwise result from all grades combined.
2. The School will implement a managed “carpool” system. At the beginning of each school term, parents will be issued hang tags with unique identification that pairs them with the corresponding student(s). During the pick-up period, the hang-tags will be on display through the vehicle’s windshield while parents circulate through the prescribed route, as depicted in **Exhibit 1**. School staff will be positioned at strategic locations ahead of the loading areas and relay the sequence of parent arrival back to the loading area via hand radio, as the students are prepped for pick-up. With the assistance of other school staff stationed at the loading area, several vehicles will continue to be loaded simultaneously along one single designated queue lane.
3. The school PTA and the Forest Hill Neighborhood Association should request the presence of a City of Dallas Police to monitor and enforce traffic operations.
4. The school PTA should investigate resources, incentives and campaigns that encourage students and parents to walk or ride bicycles to school.
5. As needed, school officials should conduct annual meetings with neighborhood representatives to address any problems concerning school traffic and identify solutions in the interest of all involved parties.
6. The City of Dallas should install pedestrian crosswalks at the intersection of St. Francis Avenue and San Leandro Drive; school officials should consider the assignment of crossing guards at this intersection.

NOTE: Any jaywalking between parked school buses on St. Francis should be immediately addressed and controlled. However, pedestrian crosswalks should not be considered an absolute enhancement to provide pedestrian safety. Pedestrians are prone to be less cautious when crossing a street at a dedicated pavement marking, giving responsibility of action to approaching vehicles instead.

7. The full cooperation of staff, students and parents is crucial for the success of the TMP. Proper training of staff on their duties and expectations pertaining to the TMP is recommended. Proper communications at the beginning of the each school term (and otherwise, as needed) with students and parents on their duties and expectation is also recommended, including a reminder of the risks associated with speeding in school zones and the use of hand-held phones while driving.
8. The School should allow no staff other than off-duty, deputized officers of the law to engage or attempt to influence traffic operations in public right-of-way.
9. As needed, students or staff directing dismissed students should, in lieu of simple hand gestures, procure and use reversible hand-paddle signs with the messages for STOP and SLOW. Optional additional equipment used by staff may include whistles (for audible warnings) and fluorescent vests (for visual warning).
10. DeShazo recommends a traffic sign for approaching traffic at the operating KCS railroad crossing to prevent vehicles stopping on tracks.

END OF MEMO



Site plan provided by BRW Architects shown for illustration purposes only.

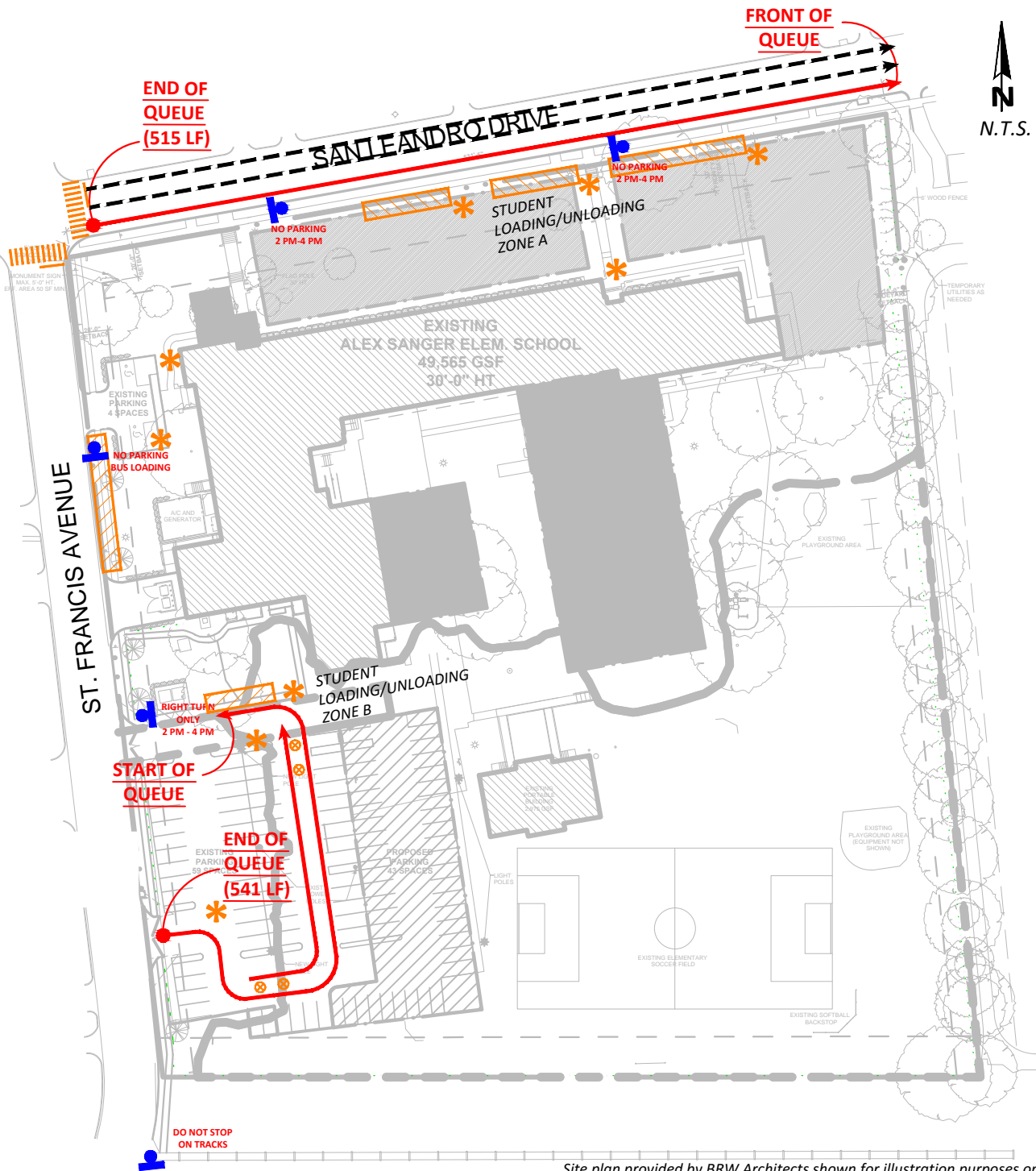
Queuing Summary					Legend	
TIME	GRADE	PROVIDED	REQUIRED	SURPLUS	Symbol	Description
A. 2:50PM	Pre-K (105)	22 cars (376 LF)	16 cars (141 LF)	6 cars (141 LF)	✱	- School Staff
A. 3:00PM	Kinder (145)	22 cars (517 LF)	22 cars (517 LF)	0 cars (0 LF)	▨	- Loading Area
A. 3:15PM	3-5th (210)	22 cars (517 LF)	24 cars (564 LF)	- 2 cars (-47 LF)	→	- Queue Capacity
B. 3:00PM	1-2nd (220)	32 cars (752 LF)	25 cars (588 LF)	7 cars (165 LF)	→	- By-Pass Lane
B. 3:15PM	6-8th (220)	32 cars (752 LF)	25 cars (588 LF)	7 cars (165 LF)	⊗	- Traffic Cones
					Ⓜ	- Traffic Sign

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 Street Services Department.

Vehicular queue at 23.5 feet per passenger car based on field observations.

EXHIBIT 1
Traffic Management Plan
 DISD Alex Sanger Elementary (& Proposed Middle) School
 8410 San Leandro Dr, Dallas, Texas



Site plan provided by BRW Architects shown for illustration purposes only.

Queuing Summary				
TIME	GRADE	PROVIDED	REQUIRED	SURPLUS
A. 2:55PM	Pre-K (150) & Kinder	22 cars (517 LF)	23 cars (541 LF)	-1 car (-24 LF)
A. 3:10PM	3-5th (210)	22 cars (517 LF)	24 cars (564 LF)	-2 cars (-47 LF)
B. 2:55PM	1-2nd (170)	23 cars (541 LF)	19 cars (447 LF)	4 cars (94 LF)
B. 3:10PM	6-8th (220)	23 cars (541 LF)	25 cars (588 LF)	-2 cars (-47 LF)

Legend	
	- School Staff
	- Loading Area
	- Queue Capacity
	- By-Pass Lane
	- Traffic Cones
	- Traffic Sign

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.

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Vehicular queue at 23.5 feet per passenger car based on field observations.

**EXHIBIT 3. Proposed Student Dismissal & Traffic Queue Summary
 for DISD Alex Sanger Elementary School**

Table A. Student Enrollment vs Anticipated School Capacity

Student Grade	Student Enrollment School Year 2018-2019		Student Enrollment at School Capacity	
	Student Enrollment	Bus Ridership	Student Count	Bus Ridership
Pre-K	55	0 (0%)	105	0 (0%)
Kinder	95	24 (25%)	145	36 (25%)
1 – 2 nd	170	45 (25%)	220	55 (25%)
3 – 5 th	210	50 (25%)	210	55 (25%)
6 – 8 th	220	55 (25%)	220	55 (25%)
Totals:	750	175 (22%)	900	200 (22%)

Table B. Interim Conditions (School Year 2018-2019)

Time	Grades	Student Enrollment	Projected Queue	Provided Queue	Surplus/ (Deficit)
A. Drop-Off/Pick-Up Curb on San Leandro Dr.					
2:55 PM	PreK-Kinder	150	23 cars	22 cars	(1 car)
3:10 PM	3 rd – 5 th Grade	210	24 cars	22 cars	(2 cars)
B. Parking Lot on St. Francis Ave.					
2:55 PM	1 st – 2 nd Grade	170	19 cars	23 cars	4 cars
3:10 PM	6 th – 8 th Grade	220	25 cars	23 cars	(2 cars)
Total Enrollment:		750			

Projected maximum queue considers 25% bus ridership for 1st- 8th grade students.

Table C. Theoretical Conditions (Anticipated School Capacity)

Time	Grades	Student Enrollment	Projected Queue	Provided Queue	Surplus/ (Deficit)
A. Drop-Off/Pick-Up Curb on San Leandro Dr.					
2:50 PM	Pre-Kinder	105	16 cars	22 cars	4 cars
3:00 PM	Kindergarten	145	22 cars	22 cars	0 cars
3:15 PM	3 rd – 5 th Grade	210	24 cars	22 cars	(2 cars)
B. Parking Lot on St. Francis Ave.					
3:00 PM	1 st – 2 nd Grade	220	25 cars	32 cars	7 cars
3:15 PM	6 th – 8 th Grade	220	25 cars	32 cars	7 cars
Total Enrollment:		900			

Projected maximum queue considers 25% bus ridership for 1st- 8th grade students.