December 20, 2021
PK# 2380-21.431

TRAFFIC MANAGEMENT PLAN

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Dallas Independent School District Martha Turner Reilly Elementary School
CITY OF DALLAS

Introduction

The services of **Pacheco Koch** (PK) were retained by **Masterplan** on behalf of **Dallas Independent School District** to prepare a Traffic Management Plan (TMP), as requested by the City of Dallas, for the existing Martha Turner Reilly Elementary School described below. The existing elementary school will be demolished, and a new school will be built on the same property.

As described in Appendix A6 of the City of Dallas *Street Design Manual*, a school Traffic Management Plan is a "site-specific plan providing guidelines to coordinate traffic circulation during school peak hours. TMPs should promote strategies to manage all modes of transportation and maintain student safety paramount at all times. An effective plan requires continual planning, renewed understanding and coordinated efforts by city staff, school administration and staff, neighbors, parents, and students.

This TMP was prepared by registered engineers at Pacheco Koch who are experienced in transportation and traffic engineering (the "Engineer"). Pacheco Koch is a licensed engineering firm based in Dallas, Texas, that provides professional engineering and related services.

The engineer performed most recent on-site dismissal field observations on December 8th, 2021, that validates all information in this report.

1. TMP EXHIBIT

(See attached Exhibit 1 - Traffic Management Plan)

Pacheco Koch

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TX.REG: ENGINEERING FIRM F-469
TX. REG. SURVEYING FIRM LS-100080-00

2. SCHOOL LOCATION AND DESCRIPTION

- **School site location**: 11230 Lippitt Avenue, Dallas, Texas
- **Description of adjacent roadways**:
    - Adjacent Streets:
        - Lippitt Avenue:
            - Cross-section: Two lanes, two-way operation [eastbound one-way operational during school hours], undivided.
            - Sidewalk connectivity evident along frontage of school. *[School Zone]*
            - Speed Limit: *30 mph [School Zone of 20 mph]*
        - Neering Drive:
            - Cross-section: Two lanes, two-way operation, undivided.
            - Sidewalk connectivity evident along frontage of school. *[School Zone]*
            - Speed Limit: *30 mph [School Zone of 20 mph]*
        - Sunland Street:
            - Cross-section: Two lanes, two-way operation [southbound one-way operational during school hours], undivided.
            - Sidewalk connectivity evident along frontage of school. *[School Zone]*
            - Speed Limit: *30 mph [School Zone of 20 mph]*
        - Flamingo Lane:
            - Cross-section: Two lanes, two-way operation [northbound one-way operational during school hours], undivided.
            - Sidewalk connectivity evident along frontage of school. *[School Zone]*
            - Speed Limit: *30 mph*

- **Adjacent Intersections**:
  - Lippitt Avenue and Neering Drive - Marked crosswalks on northbound, westbound, and southbound approaches, with barrier free ramps provided on all corners.
  - Lippitt Avenue and Sunland Street - Marked crosswalks on all approaches, no barrier free ramps provided on any corners. One crossing guard was present for the intersection.
  - Sunland Street and Flamingo Lane - Marked crosswalks (old and faded) on all approaches, no barrier free ramps provided on any corners.
  - Sunland Street and Rupley Lane - Marked crosswalks on all approaches, with barrier free ramps provided on all corners.
  - Neering Drive and Flamingo Lane - Marked crosswalk on westbound approach, no barrier free ramps provided on any corners.

NOTE: It is generally recommended that all applicable crosswalks/barrier free ramps/sidewalks comply with current ADA accessibility requirements. Pacheco Koch is not certified to provide a full ADA compliance inspection, which is performed by licensed inspectors during the design and permitting process. All pavement markings, traffic signs, school zones, and pedestrian infrastructure improvements are recommended to be upgraded at permitting as applicable and meet current city and TMUTCD standards.

3. INGRESS/EGRESS POINTS OF ACCESS

- **Vehicular Ingress/Egress Points**:
  - Lippitt Avenue: One Driveway
  - Flamingo Lane: One Driveway
  - Sunland Street: One Driveway
- **Student (Building) Ingress/Egress Points**:
  - Main student pedestrian access will be located at the main entrance on the north side of the school building. Additional access will be provided at the back access point, south of the building.

4. QUEUING SUMMARY TABLE

The following table presents the projected queuing vehicle accumulation for the subject campus. The calculations for vehicle accumulation and parking are based

upon estimated ratios – estimated linear feet of queue per student – along with the assumptions provided by Dallas Independent School District for this campus have been validated by on-site dismissal observations conducted on December 8th, 2021. All information provided in the table below is strictly for the afternoon student pick-up release period.

See Section 12(b) for specific information on the methodology and calculations used in the table below. Specific separation of modes of transportation was provided by DISD and is provided in Section 6.

Queuing Summary Table

Dismissal Period (Loading Zone)	Grades	Start/End Times	Total Enrollment	Maximum Vehicle Accumulation	(On-Site) Storage Capacity (veh)	Surplus /Deficit (veh)
1	Pre-K – Kinder	7:45 AM – 2:45 PM	Pre-K /Kinder – 129	24	70	46
2	1st – 5th	7:45 AM – 3:00 PM	1st - 5th – 377	70	70	0

5. CIRCULATION

This section provides on-site traffic circulation, including any temporary traffic control devices.

On-Site Circulation:

- Pre-K - Kinder:

  Parent traffic is to enter the area traveling along Lippitt Avenue and enter the site via the driveway on Lippitt Avenue between Neering Drive and Sunland Street.

  Circulation is provided on-site and to circulate in a counterclockwise traffic flow. (See **Exhibit 1**).

  Traffic is to exit the queueing area continuing north for the north queue after the vehicle has sufficiently unloaded/loaded the student(s) exiting/entering the vehicle. Traffic is then to exit the site onto Lippitt Avenue.

- 1st Grade – 3rd Grade:

  Parent traffic is to enter the area traveling along Lippitt Avenue and enter the site via the driveway on Lippitt Avenue between Neering Drive and Sunland Street.

  Also, queuing will be provided south of the school building, on site entering Sunland Street.

Circulation for both queuing areas is provided on-site and to circulate in a counterclockwise traffic flow. (See **Exhibit 1**).

Traffic is to exit the queueing area continuing north for the north queue and south for the south queue, respectively, after the vehicle has sufficiently unloaded/loaded the student(s) exiting/entering the vehicle. North queue traffic is then to exit the site onto Lippitt Avenue while the south queue traffic is to exit onto Flamingo Lane.

School buses load and unload students within the south parking lot on-site (as shown in **Exhibit 1**).

Staff and visitor parking lots are provided north of the building. The parking lot west of the school building along the south of the building will provide additional parking, as well.

Temporary traffic control devices:

- Cones are to be place along the northern parking lot (as shown in **Exhibit 1**) to redirect traffic.

6. DROP-OFF/PICK-UP COORDINATION

This section provides proposed student drop-off/pick-up coordination information.

- **Passenger ID system**:
    - Managed Loading System

    NOTE: A "managed loading system" at schools refers to the established protocol for picking up passengers at a specific release time. Passenger loading and vehicle departures are sequential based upon order of arrival. During a prior coordination phase, drivers are provided with some form of identification that school personnel observe upon arrival so that the corresponding passenger is prepped for loading before the vehicle arrives at the designated loading area.

- **Separation of modes of transportation**:
    - Bus: 10%
    - Walk: 5%
    - Picked Up by Parent: 85%

    NOTE: Information provided by Dallas Independent School District and validated with field observations

- **Staggered times**:
    - 7:45 AM – 2:45 PM (Pre-Kindergarten - Kinder)
    - 7:45 AM – 3:00 PM (1st - 5th)

7. SCHOOL STAFF ASSISTANCE

- Number:
    - Observed: 2 - 5 staff members
    - Desired: 2 - 5 staff members
- Location:
    - Observed: Beginning of queue line
    - Desired: Beginning of queue line
- Staff Requirements and expectations:
    - Staff assistance shall be present to allow students to enter and exit the school building in a safe and efficient manner.

8. ADULT SCHOOL CROSSING GUARDS AND/OR OFF-DUTY DEPUTIZED OFFICERS

- Number:
    - Observed: 1 crossing guard
    - Desired: 1 crossing guard
- Location:
    - Observed: Intersection of Lippitt Avenue and Sunland Street
    - Desired: Intersection of Lippitt Avenue and Sunland Street

9. SCHOOL ADMINISTRATION INPUT STATEMENT

The engineer collaborated with both the School District personnel and on-site staff/principal and Student Transportation Services as needed, before and during the process of creation of the Traffic Management Plan.

The site engineer, the architect and the traffic engineer have collaborated the traffic patterns of parent routes, bus routes, and recommendations of the TMP with the on-site and District personnel. The onsite and District personnel have completed a thorough review and any changes that have been discussed have been applied to this version of the plan.

REVIEW AND COMMITMENT

This school traffic management plan (TMP) for Martha Turner Reilly Elementary School was developed with the intent of optimizing safety and efficiently accommodating vehicular traffic generated during the school's typical student drop-off and pick-up periods. This plan was developed with direct input from individuals familiar with the general characteristics of the traffic needs of the school. It is important to note that a concerted and ongoing effort by and the full participation of the school administration are essential to accomplish these goals.

By the endorsement provided below, the school administration hereby agrees to implement, adhere to, and support the strategies presented in this TMP for which the school is held responsible until or unless the City of Dallas deems those strategies are no longer necessary or that other measures are more appropriate.

_____ _____

Principal Signature Date

Name: _____

Title: _____

_____ _____

Police Department Signature Date

Name: _____

Title: _____

10. ENGINEER SEAL

This report is signed, stamped, and dated by a licensed Professional Engineer in the State of Texas with specific expertise in transportation and traffic engineering.

11. REPORT FORMAT

This report follows the City of Dallas Traffic Management Plan format as described in Appendix A6 of the City of Dallas *Street Design Manual.*

12. OTHER ITEMS WHERE APPLICABLE

a) School Bus Operations:

b) Methodology:

   a. Engineer Recommended Rate: 5.12 linear feet per student

   b. Average Length of Vehicle: 23.5 feet

   c. Separation of modes of transportation:

      i. Bus: 10%

      ii. Walk: 5%

      iii. Picked Up by Parent: 85%

      NOTE: Information provided by Dallas Independent School District and validated with field observations

   d. Projected maximum vehicle accumulation: 70

   e. Projected on-site storage capacity: 70

   f. Surplus/Deficit: 0

c) Pedestrian Routes: The pedestrian routes are based on the attendance zone map when finalized. The attendance zone was not provided at the time of this study however, the anticipated (and observed) pedestrian routes include the sidewalk paths along Sunland Street and Lippitt Avenue.

d) Parking Management Strategies:

   a. On-street parking restrictions: none

   b. Faculty Parking: on-site

   c. Visitor Parking: on-site

e) Recommendations for walking/biking: (See below)

f) Other Recommendations (if applicable) : (See below)

g) Traffic Control (Signage) Plan: Not Appliable

END OF MEMO

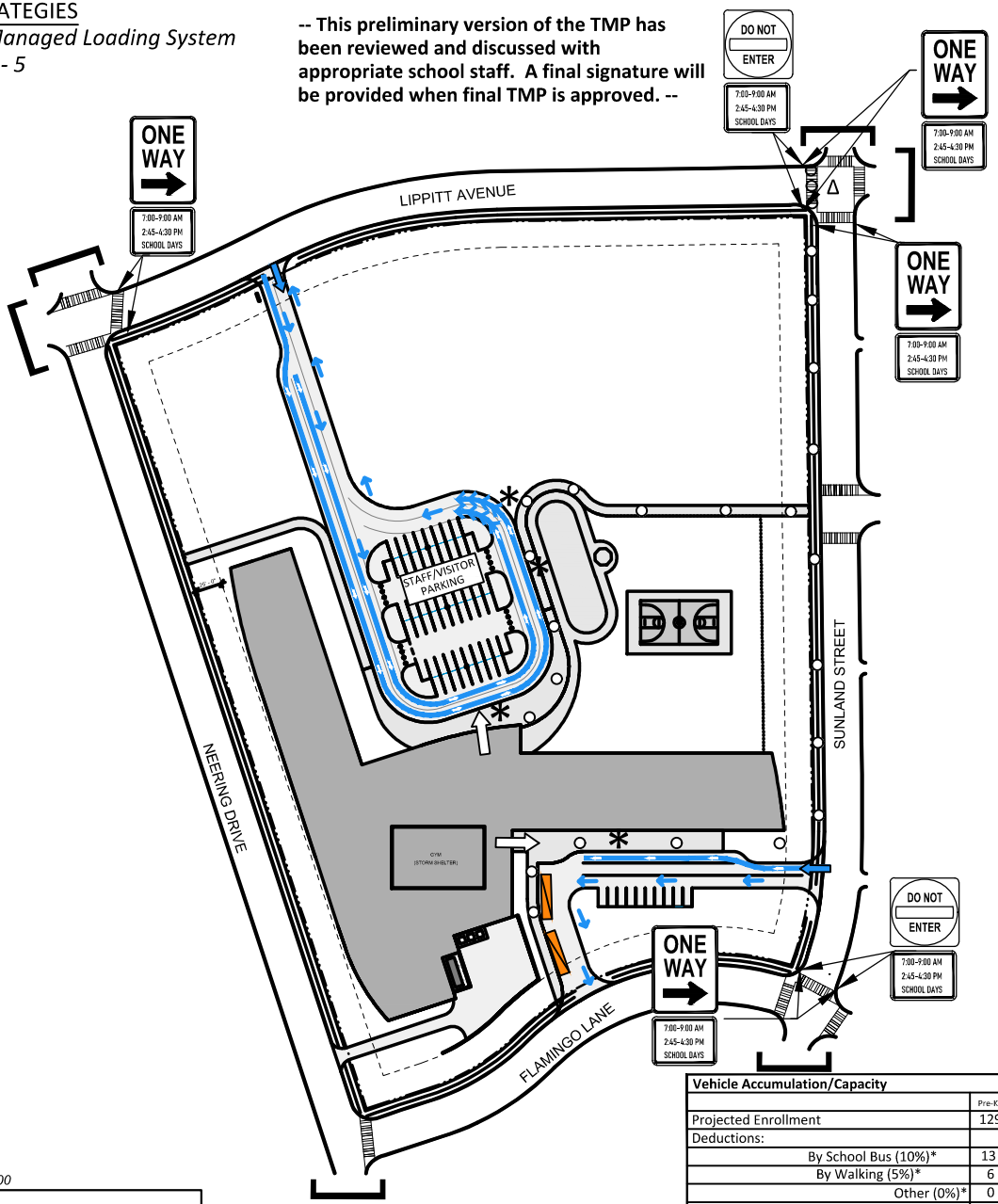
TMP MANAGEMENT STRATEGIES

Student ID System: *Managed Loading System*

# of Staff Assistance: *2 - 5*

# of Crossing Guards: *1*

-- This preliminary version of the TMP has been reviewed and discussed with appropriate school staff. A final signature will be provided when final TMP is approved. --



LEGEND

- Queue Area (Managed Loading)
- Front (or Start) of Queue
- Circulation/Flow
- Parent Vehicle Access Point
- School Bus Loading/Unloading
- Pedestrian Access Point
- Crosswalk
- Pedestrian Route
- [ ] - School Zone
- * - Staff Assistance
- Δ - Crossing Guard(s)
- ●●●● - Traffic Cones

GENERAL NOTES:

1. The subject school administration shall issue a formal communication that summarizes the intent of the Traffic Management Plan at least once every school year.

2. Parent drop-off activity in the morning has a similar protocol as the parent pick-up in the afternoon. Generally, excessive traffic delays and queuing were not evident during the morning peak.

3. This drawing is conceptual only and does not reflect a detailed design. Site plan designed and provided by others.

4. The engineer certifies that the results of the queuing analysis—upon complete enforcement of the traffic management plan and its recommendations—indicate that no queuing of vehicles is expected to extend into City of Dallas rights-of-way as a result of internal queuing constrains during the study peak hours of school operation.

Vehicle Accumulation/Capacity	Pre-K - K	1st - 5th	Notes
Projected Enrollment	129	377	Students
Deductions:			
By School Bus (10%)*	13	38	Students
By Walking (5%)*	6	19	Students
Other (0%)*	0	0	Students
Students by Pick-up/Drop-off	110	320	Students
Engineer Recommended Rate:	5.12	5.12	lf of max. queue per student
Average Length of Vehicle:	23.5	23.5	lf/veh (Pacheco Koch Observed)
"Projected Maximum Vehicle Accumulation":	24	70	Vehicles (561 lf, 1641 lf)
Projected Off-Street Capacity:	70	70	Vehicles (1641 lf, 1641 lf)
SURPLUS/DEFICIT	46	0	

*Information given by school district

*Pre-k - K releases before normal drop-off period

PK 2380-21.431 (SMN: 12/20/21)

TX. REG: ENGINEERING FIRM F-469

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PRELIMINARY

NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR THE PURPOSE OF SCHEMATIC REVIEW ONLY AND IS NOT INTENDED FOR PERMITTING, BIDDING, OR CONSTRUCTION PURPOSES.

PLANS PREPARED UNDER THE DIRECT SUPERVISION OF HUNTER W. LEMLEY, P.E. TEXAS REGISTRATION NO. 125343 DATE: 12/20/21

EXHIBIT **1** Z____-____

Traffic Management Plan

Martha Turner Reilly Elementary School, Dallas, Texas

Pacheco Koch