



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Review Intersection Study for Central Avenue at Eden Street

MEETING DATE: August 15, 2001

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council review the following study for the Central Avenue and Eden Street intersection and direct staff to perform the described modifications to the existing school crossing.

BACKGROUND INFORMATION: At the June 7, 2001, Eastside Improvement Committee meeting, staff presented the results of our review for a multi-way stop at this intersection. Our review indicated less-restrictive measures should be implemented. At the meeting, and through a petition signed by citizens residing in the vicinity, the group wanted the intersection made a four-way stop. Public Works staff was asked to bring this issue before City Council for further review. The requests cite the high number of Heritage Elementary School students crossing at the intersection. A citizen concern related to visibility at this intersection created by parked vehicles was also received.

The attached **Appendix** presents staff's review of existing conditions in the area and the results of staff's review of Caltrans guidelines for multi-way stop, adult crossing guards, and visibility while entering Central Avenue from Eden Street.

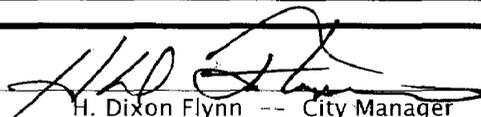
DISCUSSION/RECOMMENDATIONS: Since the primary reason expressed for a multi-way stop control at this intersection is to control traffic when students are crossing, we feel a less restrictive remedy should be considered. Multi-way stops require vehicles to stop at all times during the day, and due to the comparatively low traffic volume on Eden Street, much of Central Avenue traffic would have to stop unnecessarily. Central Avenue is classified as a collector street in the Street Master Plan and is designed to carry higher volumes of traffic. There also appears to be sufficient existing controlled crossings in the vicinity that can be used to access the school and other businesses in the area (**Exhibit D**).

To encourage students to cross at the controlled intersection at Tokay Street, we considered removing the yellow school crosswalks at Eden Street. However, since the Eden Street intersection also receives non-student pedestrian activity from the adjacent commercial businesses, this crosswalk removal is not recommended.

Based on these factors, staff proposes the following improvements:

- leave the existing stops in place;
- make the crosswalks more visible by painting wide stripes perpendicular to the existing crosswalk line;
- install the recently-approved fluorescent green school crossing signs adjacent to the crossings; and,

APPROVED:



H. Dixon Flynn -- City Manager

- install no-parking zones adjacent to the intersection to improve drivers' visibility of pedestrians, as well as pedestrians' visibility of approaching vehicles (**Exhibit E**). The no-parking zones will have an added advantage of improving visibility for drivers entering Central Avenue from Eden Street.

If Council concurs with staff's recommendation to leave the intersection as a two-way stop, no action is needed. The Public Works Director is authorized to make the recommended improvements at the existing school crossing. Staff will contact the School District regarding its agreement to consider an adult crossing guard at this intersection. The School District both hires and funds adult crossing guards.

FUNDING: The \$500 cost to make the signing and marking modifications at the existing school crossing from the Street Maintenance Account



Richard C. Prima, Jr.
Public Works Director

Prepared by Rick S. Kiriu, Senior Engineering Technician

RCP/RSK/lm

Attachments

cc: City Attorney
Police Chief
City Engineer
Street Superintendent
LUSD Police Services – Biglow
Associate Traffic Engineer
Eastside Improvement Committee Board Members
Concerned Citizens

APPENDIX

EXISTING CONDITIONS: The intersection of Central Avenue and Eden Street is a four-legged intersection with Eden Street traffic controlled by stop signs. Central Avenue traffic is not controlled at the intersection. At this intersection, land use consists of a vacant parcel at the northeast corner with all other corners commercial uses. Marked school crosswalks exist across Central Avenue at Eden Street and "SLOW SCHOOL XING" pavement markings are present on Central Avenue approaching the crossings. Recent traffic volumes measured on Central Avenue at Eden Street are 5,392 (85%) and 974 (15%) vehicles per day, respectively. A review of traffic accidents for the four plus years, from 1997 to the present, indicates that three accidents have occurred that are correctable with the installation of a multi-way stop control (**Exhibit A**). Two pedestrian accidents occurred during this time period, one at the intersection and one to the south. Neither of these accidents involved school-aged pedestrians.

STUDY RESULTS: The following are results of staff's review of Caltrans multi-way stop guidelines, Caltrans adult crossing guard guidelines, and visibility of approaching traffic while on Eden Street at Central Avenue.

Multi-Way Stop Study

When considering the installation of a multi-way stop control, Caltrans guidelines are used. These guidelines consider accidents that would be correctable with a multi-way stop, vehicle and pedestrian volumes, speed of traffic, and the volumes of traffic entering the intersection. As shown on **Exhibit B**, this intersection does not satisfy any of these guidelines for the consideration of a multi-way control. Caltrans guidelines emphasize that stop signs are not a "cure-all" and should not be used indiscriminately. Multi-way stops should also be used at intersections where traffic volumes on both streets are about equal (50/50). The traffic volume split on Central Avenue and Eden Street is 85/15, respectively.

Adult Crossing Guard Study

Adult crossing guards assist elementary school students at certain school crossings during the periods when students are going to and from school. At uncontrolled locations, such as at Central Avenue at Eden Street, Caltrans guidelines recommend adult crossing guards be considered if there are no alternate controlled crossings within 600 feet; and, where there are a minimum of 40 school-aged pedestrians crossing, and when vehicular traffic exceeds 350 during each of any two hours of the day (not necessarily consecutive). Adult crossing guards are used at locations where the primary concern is student crossing and more stringent traffic controls based on accidents and traffic volumes are not deemed necessary.

At this particular intersection, there is an alternate crossing within 350 feet (one block south) at the intersection of Central Avenue and Tokay Street. Although this crossing is almost half the distance outlined in Caltrans guidelines, since marked school crosswalks exist at Eden Street, staff performed the study. The results showed that, although there are sufficient students crossing during both hours surveyed, the morning period did not have sufficient vehicles to satisfy the guidelines (**Exhibit C**). Even though the guidelines are not satisfied, the School District indicated they will consider providing an adult crossing guard due to the high number of students crossing this intersection.

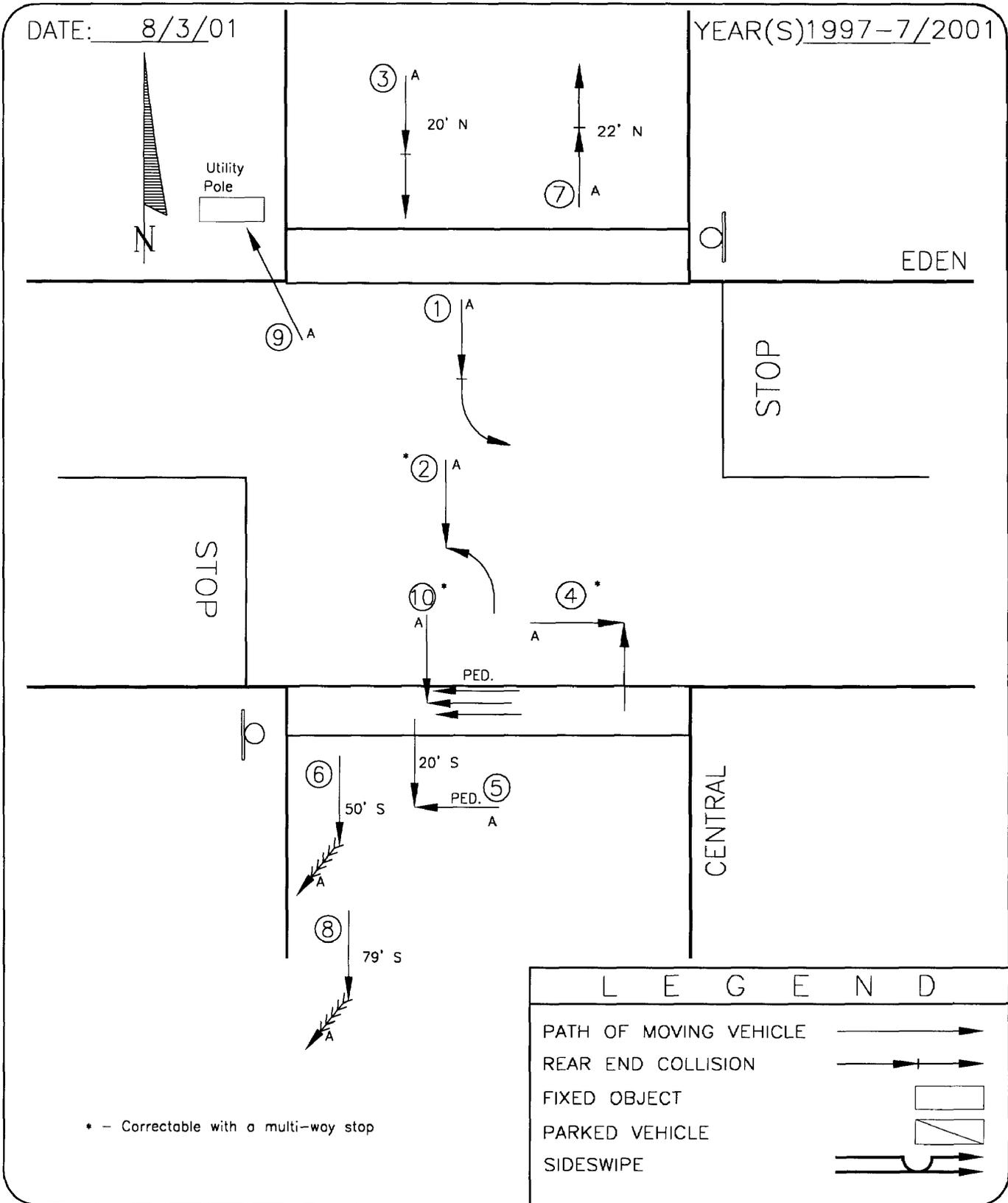
Visibility Study

Visibility studies are primarily performed at locations where complaints are received and/or accidents suggest there may be a related problem. Only when visibility cannot be improved due to permanent sight obstructions would the need for additional traffic control be considered. Staff's review of the intersection indicates that visibility can be a problem when vehicles, especially larger vehicles, park adjacent to the intersection. When accident records do not reflect a problem related to visibility, generally short segments of no-parking zones adjacent to the intersection are recommended to improve visibility.



CITY OF LODI
PUBLIC WORKS DEPARTMENT

Collision Diagram
Intersection Of
CENTRAL and EDEN



Location: Central Ave and Eden St

Year(s): 1997-7/2001

PD#	No.	DATE	TIME	DAMAGE	INJURIES	APPARENT CAUSE (A)
97-10212	1.	09/04/97	1659	Min-Min	0	Unsafe speed, inattention
97-13647	* 2.	11/25/97	1801	Maj-Maj	1	Failed to yield, H&R
98-6410	3.	06/14/98	1923	Min-Min	0	Unsafe speed, did not see veh stopped for ped crossing
99-794	* 4.	01/24/99	0805	Maj-Mod	0	Failure to yield, both driver fled scene
99-1079	5.	02/01/99	1818	Min	1	Failure to yield, ped hit running across street, ped had been drinking
99-6745	6.	07/12/99	1816	Min-Mod	0	Unsafe backing from parking stall
99-10034	7.	10/14/99	1637	Mod-Min	0	Following too close, inattention
99-10311	8.	10/22/99	1524	Min-Min	0	Unsafe backing from parking stall
99-12000	9.	12/11/99	2135	Maj	0	DUI, drifted and hit telephone pole
00-7875	* 10.	08/11/00	1636	Non	3	Failure to yield, unlicensed driver hit 3 peds in crosswalk, H&R
	11.					
	12.					
	13.					
	14.					
	15.					
	16.	* - Correctable with a multi-way stop.				
	17.					
	18.					
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	30.					



CITY OF LODI
Public Works Department

**MULTI-WAY STOP SIGN
WARRANTS**

INTERSECTION OF: Central Avenue and Eden Street
DATE: July 27, 2001 BY: R. Kiriu

Any of the following conditions may warrant a multi-way STOP sign installation.

1. Where traffic signals are warranted and the need is urgent, the four-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.

Satisfied _____ Not Satisfied X

2. An accident problem, as indicated by five or more reported accidents of a type susceptible of correction by a multi-way stop installation in a 12-month period. Types of accidents susceptible of correction include right angle and left turn collisions.

Time period 1/2000 to 12/2000
Total number of accidents 1

Number of correctable accidents 1
Satisfied _____ Not Satisfied X

3. Minimum volume warrant:

- a. The total vehicular volume entering the intersection from all approaches must average at least **500** vehicles per hour for any eight hours of an average day, and

Hour	12-1	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Major Street	326	398	406	358	492	483	433	399
Minor Street	54	92	75	54	94	82	65	63

Highest eight hours 12:00 to 20:00
Total volume 3874 vehicles
Average per hour 484 vehicles

- b. The combined vehicular and pedestrian volume from the minor street or highway must average at least **200** units per hour for the same eight hours with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour.

Hour	12-1	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Minor St Vehs	54	92	75	54	94	82	65	63
Pedestrians	20	20	20	20	20	20	20	20

Highest eight hours 12:00 to 20:00
Average per hour 72 vehicles
Average per hour 20 peds
Average units per hour 92
Satisfied _____ Not Satisfied X

Estimated ped count is 20 per hour. 1,020 peds in eight hour period or average of 128 per hour needed to satisfy.

4. When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum vehicular volume warrant is 70 percent of the above requirements.

85-percentile speed 32 MPH
Satisfied _____ Not Satisfied X

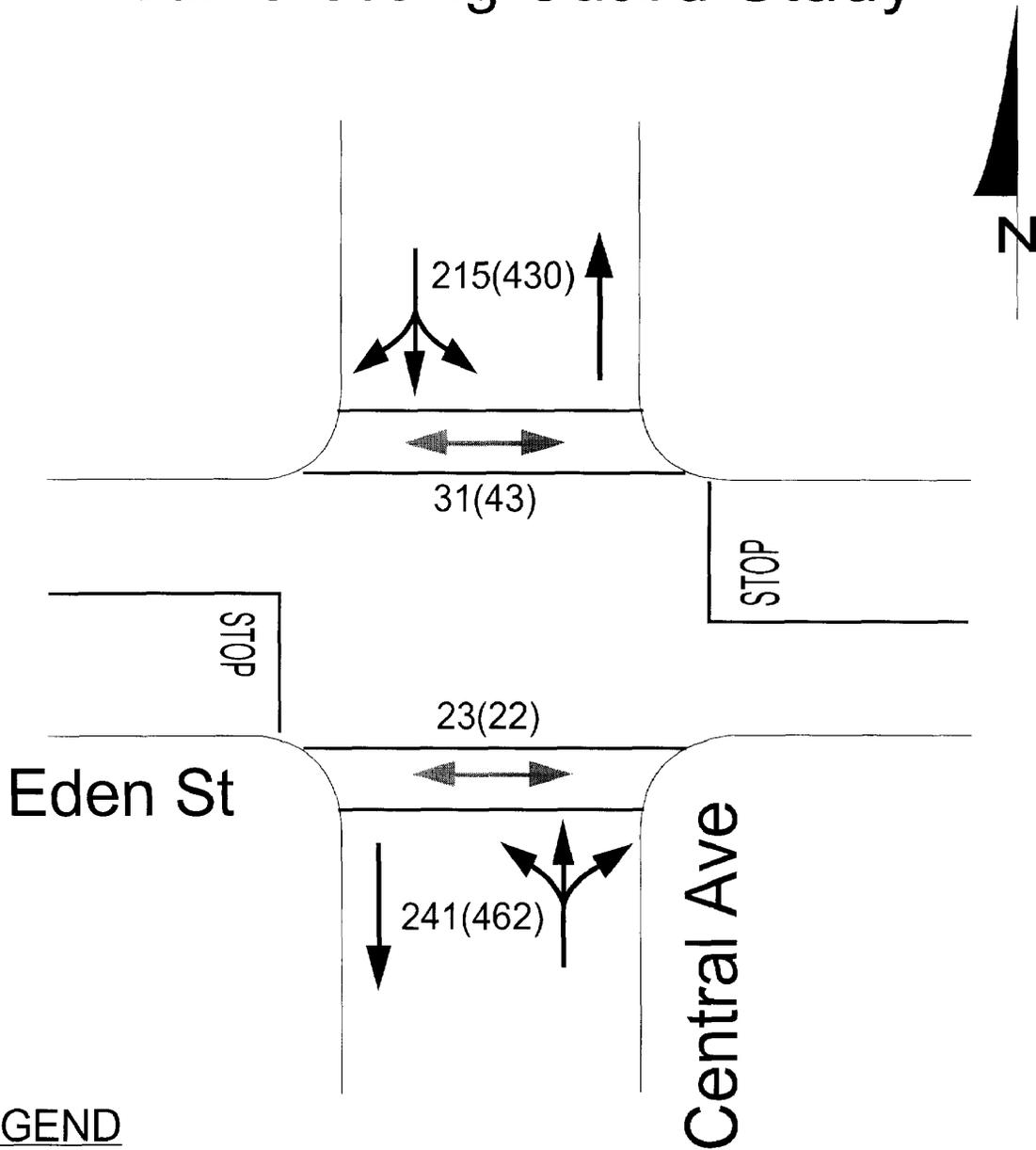
A four-way STOP sign installation is a useful traffic control measure when other available means of control are not adequate. It should not be used unless the volume of traffic on the intersecting roads is about equal and is undesirable at low volume intersections.

Traffic major street 85%
Traffic minor street 15%

Approved by: *L. Bernerdy*

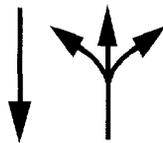
Warrant Satisfied: YES _____ NO X

Central & Eden Adult Crossing Guard Study



LEGEND

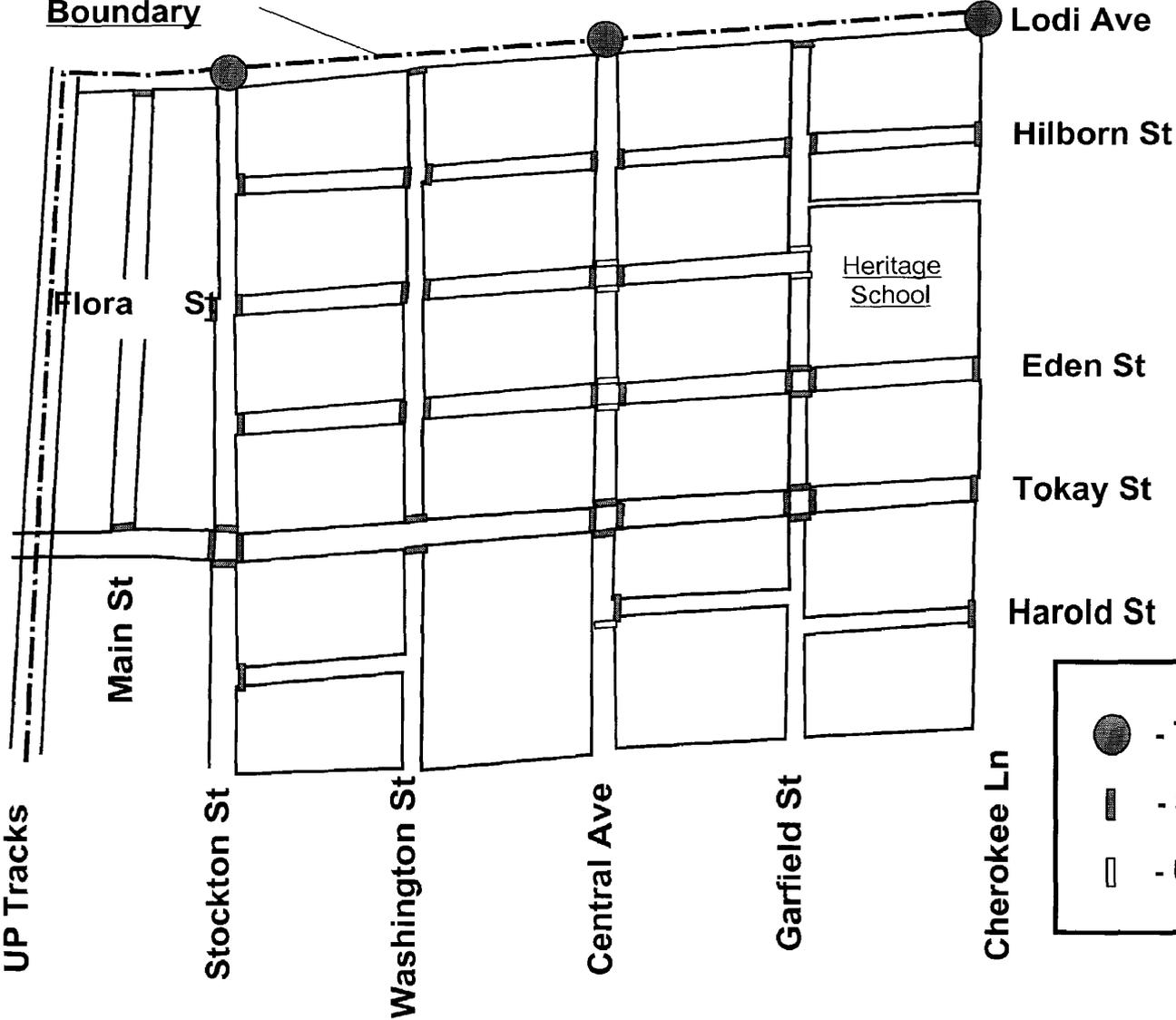
 - Pedestrian movements

 - Vehicle movements

23(22) - Morning (Afternoon) Counts

Existing Area Traffic Controls

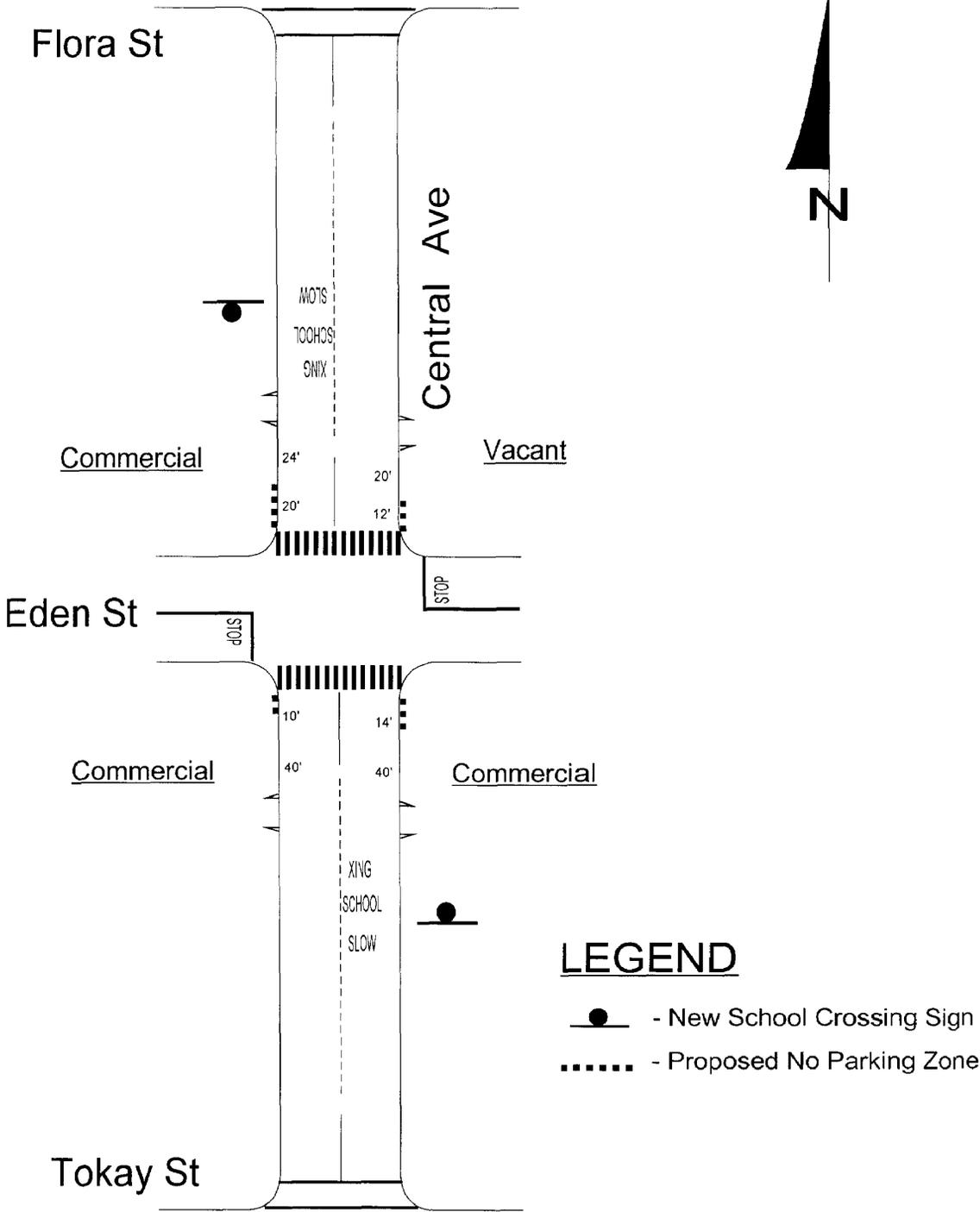
Heritage School Boundary



LEGEND

- - Traffic Signal
- ▬ - Stop Controlled Crossing
- ▭ - Uncontrolled Crossing

Central Ave & Eden St Proposed Pedestrian Crossing Improvements



RESOLUTION NO. 2001-204

A RESOLUTION OF THE LODI CITY COUNCIL AMENDING
TRAFFIC RESOLUTION BY INSTALLING MULTI-WAY
STOP CONTROL AT THE INTERSECTION OF
CENTRAL AVENUE AND EDEN STREET

=====

BE IT RESOLVED that the City Council of the City of Lodi does hereby approve amending the Traffic Resolution by installing a multi-way stop control at the intersection of Central Avenue and Eden Street; and

BE IT FURTHER RESOLVED, that City of Lodi Traffic Resolution No. 97-148, Section 2(C)(1) "Multi-Way Stop Intersections," is hereby amended by installing a multi-way stop control at the intersection of Central Avenue and Eden Street.

Dated: August 15, 2001

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I hereby certify that Resolution No. 2001-204 was passed and adopted by the City Council of the City of Lodi in a regular meeting held August 15, 2001, by the following vote:

AYES: COUNCIL MEMBERS – Hitchcock, Howard, Land and Mayor
Nakanishi

NOES: COUNCIL MEMBERS – Pennino

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None



SUSAN J. BLACKSTON
City Clerk

File

CITY COUNCIL

ALAN S. NAKANISHI, Mayor
PHILLIP A. PENNINO
Mayor Pro Tempore
SUSAN HITCHCOCK
EMILY HOWARD
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CITY OF LODI

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City Manager
SUSAN J. BLACKSTON
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RICHARD C. PRIMA, JR.
Public Works Director

August 9, 2001

Frank Biglow
LUSD Police Services
1305 East Vine Street
Lodi, CA 95240

Eastside Improvement Committee
Board Members

Concerned Citizens

*Mailing list
attached*

SUBJECT: Review Intersection Study for Central Avenue at Eden Street

Enclosed is a copy of background information on an item on the City Council agenda of Wednesday, August 15, 2001. The meeting will be held at 7 p.m. in the City Council Chamber, Carnegie Forum, 305 West Pine Street.

This item is on the regular calendar for Council discussion. You are welcome to attend.

If you wish to write to the City Council, please address your letter to City Council, City of Lodi, P. O. Box 3006, Lodi, California, 95241-1910. Be sure to allow time for the mail. Or, you may hand-deliver the letter to City Hall, 221 West Pine Street.

If you wish to address the Council at the Council Meeting, be sure to fill out a speaker's card (available at the Carnegie Forum immediately prior to the start of the meeting) and give it to the City Clerk. If you have any questions about communicating with the Council, please contact Susan Blackston, City Clerk, at 333-6702.

If you have any questions about the item itself, please call Rick Kiriu at 333-6800, ext. 2668.


Richard C. Prima, Jr.
Public Works Director

RCP/lm
Enclosure
cc: City Clerk

**EASTSIDE IMPROVEMENT
COMMITTEE**

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