

3.2 TRANSPORTATION AND CIRCULATION

This traffic analysis of the Vintner's Square Shopping Center project was originally conducted by Omni-Means Associates for the project applicant. The report was then peer-reviewed by the traffic staff of RBF Consulting on behalf of the City of Lodi to ensure technical accuracy of the report, and to provide the City with an independent review of the traffic analysis.

3.2.1 EXISTING CONDITIONS

Street Network

Streets that provide access into and around the project site include Kettleman Lane (State Highway 12), Lower Sacramento Road, Taylor Road, Tienda Drive, and South Mills Avenue, as described below.

Kettleman Lane (State Highway 12) extends in an east-west direction immediately south of the project site. Providing direct access to the proposed project, Kettleman Lane has two travel lanes from Lower Sacramento Road west past the project site. East of Lower Sacramento Road, the roadway widens to provide two eastbound lanes and one westbound lane (and a two-way left-turn lane) as it extends past South Mills Avenue. In the project site area, Kettleman Lane provides access primarily to commercial-retail development. On a regional basis, State Route 12 provides access west to Interstate 5, Rio Vista, and Fairfield. To the east, State Route 12 provides access to State Route 99 and downtown Lodi.

Lower Sacramento Road is a north-south facility that is located immediately east of the proposed project site. North of Kettleman Lane, Lower Sacramento Road has four travel lanes (two in each direction) with a raised, landscaped median and left-turn lanes at major intersections. South of Kettleman Lane the roadway narrows to two travel lanes. In the project site area, Lower Sacramento Road provides access to commercial-retail areas.

Tienda Drive extends in a northerly direction from Kettleman Lane east of the project site. A wide two-lane roadway, Tienda Drive provides access to commercial-retail development before extending into a residential neighborhood. The roadway continues across South Mills Avenue as a two-lane residential street.

Mills Avenue is a north-south street that provides access primarily to residential areas. Located east of the project site, Mills Avenue is a wide, two-lane street that provides access to residential areas north of Kettleman Lane. South of Kettleman Lane, the roadway has a raised median and provides access to commercial and residential uses.

Regional access to the proposed project site can be gained from Kettleman Lane via Interstate 5 to the west and State Route 99 to the east. Interstate 5 (I-5) is a major north-south freeway that provides access north to Sacramento (and beyond) and south to Los Angeles. State Route 99 (SR 99) is located east of the project site and also provides access to Sacramento and south to Fresno, Visalia, and Bakersfield.

Level-of-Service Concept

Level-of-Service (LOS) is the primary indicator for traffic operation performance at intersections. The resulting calculations are expressed by LOS ratings which range from LOS "A" to "F". The range describes increasing traffic demand, delays, and deterioration of services. LOS "A" represents free-flow conditions with little or no delay. LOS "E" characterizes extremely unstable flow conditions with volumes at or near the designed capacity. Motorists are likely to experience major delays (40 to 60 seconds) crossing an intersection. Minor incidents may lead to forced flow conditions (LOS "F") with operating volumes substantially below capacity. The LOS definitions for signalized and unsignalized intersections are provided in Table 3.2-1.

At stop-controlled intersections, the LOS definitions indicate delays (measured in seconds of delay) experienced by the approaches that must stop or yield to other traffic. Thus, while a specific turning movement may experience delays, the intersection may operate at a better LOS overall. Typically, vehicles attempting to turn left or travel straight across the major street from the minor streets or driveways experience the greatest delays. For this study, unsignalized intersection LOS has been calculated using methodology established by the Transportation Research Board as outlined in their 2000 Highway Capacity Manual.¹

At signalized intersections, LOS is determined by calculating the volume of conflicting turning movements at the intersection during a one-hour period. This total is then divided by "operational" design capacity calculated to accommodate those turning movements. This calculation yields a vehicle delay in seconds. The seconds of vehicle delay correspond to LOS ratings, which range from LOS "A" to "F". Consistent with Caltrans guidelines, signalized LOS calculations have been based on operational methodology found in the 2000 Highway Capacity Manual. These LOS calculations include many data inputs such as lane width, cycle length, phasing splits, peak hour factor (PHF), right-turn-on-red (RTOR), phasing splits, etc. For the purpose of this study, a PHF of 0.92 has been used as a conservative measure of intersection operation. The City of Lodi allows a PHF of 0.95 for intersection calculations and is consistent with previous cumulative studies conducted by Fehr & Peers Associates for the City. The City of Lodi also allows reasonable estimations of ROTR where applicable.

Performance Criteria

The City of Lodi's General Plan Circulation Element states that "the City shall strive to maintain LOS C on local streets and intersections. The acceptable LOS goal will be consistent with the financial resources available and the limits of technical feasibility." Based on discussion with City Engineering and Planning staff, Kettleman Lane and Lower Sacramento Road would not be considered "local streets". Rather, they are major arterial/highways providing regional east-west and north south access.²

Caltrans guidelines state that "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway facilities, however, Caltrans acknowledges that this may not

¹ Transportation Research Board (TRB), Highway Capacity Manual, Chapter 17, Unsignalized intersections, 2000.

² Meeting with Sharon Welch (Senior Civil Engineer), Paula Fernandez (Senior Traffic Engineer), and J.D. Hightower (City Planner), City of Lodi, on October 15, 2002.

**TABLE 3.2-1
LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED, UN-SIGNALIZED AND ALL-WAY-STOP-CONTROLLED INTERSECTIONS**

LEVEL OF SERVICE	TYPE OF FLOW	DELAY	MANEUVERABILITY	CONTROL DELAY/VEHICLE (SEC)		
				SIGNALIZED	UNSIGNALIZED	ALL-WAY STOP
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10.0	≤ 10.0	≤ 10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10 and ≤ 20.0	>10 and ≤ 15.0	>10 and ≤ 15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20 and ≤ 35.0	>15 and ≤ 25.0	>15 and ≤ 25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35 and ≤ 55.0	>25 and ≤ 35.0	>25 and ≤ 35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55 and ≤ 80.0	>35 and ≤ 50.0	>35 and ≤ 50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	> 80.0	> 50.0	> 50.0

References: 1. Highway Capacity Manual, Transportation Research Board, 2000.

always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS."

Based on meetings and initial comments received from Caltrans and the City of Lodi, a finding of a mid-range LOS D (45 seconds of delay) at study intersections would not be considered significant given approved, planned project, and cumulative circulation improvements. A finding of LOS D (>45 seconds of delay) would be considered a significant impact and require mitigation measures to ensure acceptable levels-of-service at project study intersections.^{3,4}

Study Intersections

Existing traffic conditions were evaluated in order to establish a baseline from which future base conditions could be analyzed. In consultations with Lodi City staff, it was determined that the following five intersections (Table 3.2-2) would be evaluated during the AM and PM peak periods (7:00-9:00 am and 4:00-6:00 pm) in order to determine the highest peak hour volumes.

Intersection		Existing Intersection Control
1	Lower Sacramento Road / Taylor Road	Stop-sign (Taylor Road)
2	Lower Sacramento Road / Sunwest-Safeway	Signalized
3	Lower Sacramento Road / Kettleman Lane	Signalized
4	Kettleman Lane / Tienda Drive	Signalized
5	Kettleman Lane / Mills Avenue	Signalized

Source: Omni-Means Associates. December 2002.

Existing AM period volumes were collected by Omni-Means Engineers & Planners during April and May, 2002.⁵ With respect to the PM peak hour, intersection turning movement counts were derived from a previous transportation study conducted for the project site by Fehr & Peers Associates.⁶ These PM peak hour intersection volumes were corroborated by a recent follow-up turning movement count conducted at the Lower Sacramento Road/Kettleman Lane intersection.⁷ This PM peak hour count indicates that traffic volumes at the intersection have remained consistent or decreased slightly than shown in previous traffic counts. For this reason, the most conservative PM peak hour volumes have

³ Caltrans, Guide For The Preparation of Traffic Impact Studies, January, 2001.

⁴ Mike Higgins, Caltrans, Letter to J.D. Hightower, City of Lodi, "Negative Deceleration Lowe's Center," Comment letter, September 26, 2002.

⁵ Omni-Means Engineers & Planners, AM and PM peak period (7:00-9:00 am & 4:00-6:00 pm) intersection turning movement counts along Lower Sacramento Road and Kettleman Lane, April-May, 2002.

⁶ Fehr & Peers Associates, Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, Draft Report, January 29, 2001.

⁷ Omni-Means Engineers and Planners, Ibid.

been used for this study. From these two-hour intersection counts, the peak hours (highest four consecutive 15-minute periods) were derived. Existing AM and PM peak hour intersection turning movement volumes are illustrated in Exhibit 3.2-1.

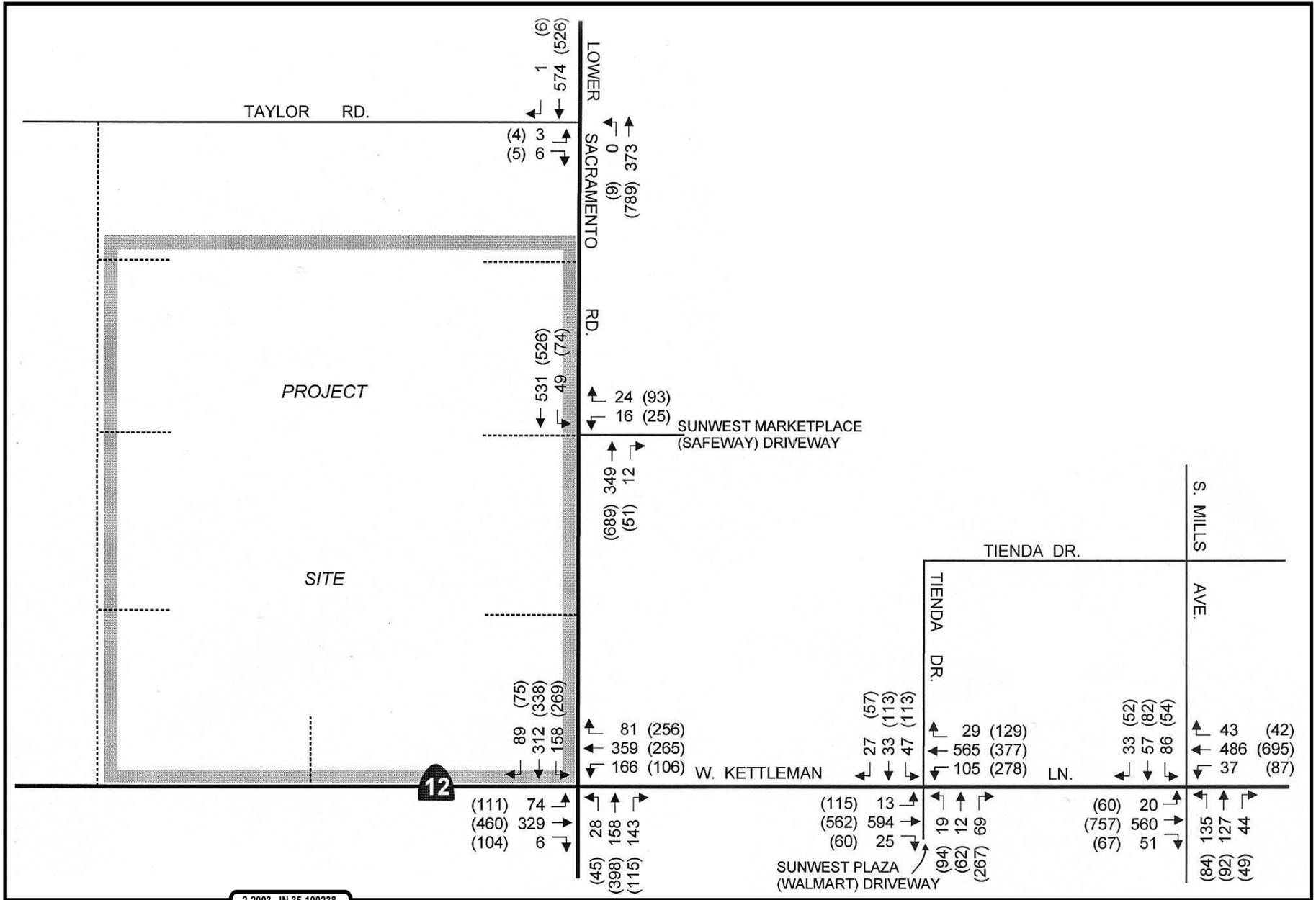
In addition to collecting peak period intersection volume data, intersection cycle lengths and phasing were also determined in the field for operational calculations. To augment this data, Caltrans staff was contacted for maximum cycle and phase lengths.⁸ In most instances, field measurements were used to determine the most efficient use of green signal times and cycle lengths for actual conditions.

Existing Intersection Operating Conditions

The existing level-of-service conditions are shown in Table 3.2-3. As calculated, all study intersections are currently operating at LOS D or better during the AM and PM peak hours. The most congested location is the signalized intersection of Kettleman Lane/Tienda Drive (LOS D, 37.5 seconds of delay). Future intersection/roadway improvements at this location would improve vehicle flows (see Cumulative Roadway Improvements discussion herein).

TABLE 3.2-3 EXISTING INTERSECTION LEVEL-OF-SERVICE AND DELAYS AM AND PM PEAK HOUR^{1, 2, 3}					
Intersection		Seconds of Delay AM LOS		Seconds of Delay PM LOS	
1	Lower Sacramento Road / Taylor Road	A	8.7	B	10.2
2	Lower Sacramento Road / Sunwest-Safeway	B	11.1	B	14.3
3	Lower Sacramento Road / Kettleman Lane	C	31.2	C	32.9
4	Kettleman Lane / Tienda Drive	C	21.1	D	37.5
5	Kettleman Lane / Mills Avenue	C	30.3	C	29.7
1. Existing AM and PM peak hour intersection turning movement counts conducted by Omni-Means Engineers & Planners, April-May, 2002. PM peak hour counts also derived from a previous traffic study conducted for the project site by Fehr & Peers Associates, January, 2001. These latter counts were corroborated by Omni-Means data collected in 2002. 2. Level-of-Service (LOS) for unsignalized intersections is based on the 2000 Highway Capacity Manual, Chapter 17, Unsignalized intersection. Average vehicle delays are expressed in seconds. 3. LOS for signalized intersections based on the 2000 Highway Capacity Manual, Chapter 16, signalized intersections, operational analyses. Average vehicle delays are expressed in seconds.					
Source: Omni-Means Engineers & Planners, December 2002.					

⁸ Richard Maisenbacher, Caltrans, District 10, Stockton, Signal timing/phasing sheets for Kettleman Lane intersections (Lower Sacramento, Tienda, and S. Mills), Personal communication on May 21, 2002.



Source: omni-means

2-2003 JN 35-100238



VINTNER'S SQUARE SHOPPING CENTER
Existing A.M. and (P.M.) Peak Hour Volumes
 Exhibit 3.2-1

3.2.2. FUTURE BASE (EXISTING PLUS APPROVED) PROJECT CONDITIONS

Future Base Traffic Growth

Future base conditions represent the anticipated traffic growth generated by approved developments that would affect traffic volumes within the study area over the next 2-3 years. Approved projects can be identified as under construction, built but not occupied, or unbuilt with final approval. Based on discussions with City of Lodi Planning staff, there are currently eight approved developments within the City of Lodi that would affect traffic flows along Lower Sacramento Road and Kettleman Lane and include the following:⁹

- a. Mills Avenue Medical Offices; 46,000 square feet. Located on the north side of Kettleman Lane on both sides of Mills Avenue;
- b. Tienda Place Residential Subdivision; 159 units. Located between Mills Avenue and Lakeshore Drive;
- c. G-REM Residential Subdivision; 33 units. Located immediately north of the proposed project site south of Taylor Road and west of Lower Sacramento Road¹⁰;
- d. Luckey @ Harney Lane Residential Subdivision, Phase 1; 77 units. Located south of project site off of Harney Lane;
- e. Century Meadows Subdivision; 92 units (phased). Located south of the project site off W. Century Boulevard.
- f. Marshall's Retail Store; 28,978 square feet. Located within the Sunwest-Safeway Shopping Center just east of the proposed project site.
- g. Quizno's Sandwich Shop; 1,389 square feet. Located within the Sunwest-Safeway Shopping Center just east of the proposed project site.
- h. Tienda Public School; 75 Students. A continuation high school located off Tienda Drive west of Mills Avenue.

Future Base Trip Generation

Daily and peak hour trip generation for approved development projects has been based on the Institute of Transportation Engineers (ITE) trip research for medical office buildings and residential development.¹¹ As calculated, the approved project's would generate 6,375 daily trips with 453 AM and 651 PM peak hour trips (please see Appendices for Approved Project Trip Generation). AM and

⁹ J.D. Hightower, City Planner, City of Lodi, Approved Project Lists, October 16, 2002.

¹⁰ The City Council later rescinded the growth management allocation given to this project and the applicant subsequently withdrew the application. Currently there are no pending applications for development of this 5.6-acre property. (J.D. Hightower, pers.comm., Feb.'03)

¹¹ Institute of Transportation Engineers (ITE), Trip Generation, 6th Edition, Medical Office Building (#720) and Single-Family (#210), 1997.

PM approved project trips were distributed onto the street network based on project location, surrounding demographics, and existing traffic flows.

AM and PM peak hour approved trips were added to existing intersection volumes and are shown on Exhibit 3.2-2.

Future Base Circulation Improvements

With future base traffic conditions, the planned Kettleman Lane Gap Closure project would be completed.¹² This project would include the widening of Kettleman Lane between Tienda Drive and Ham Lane and include an additional through-lane (westbound) as well as a raised, landscaped median. The study intersections of Tienda/Kettleman and S. Mills/Kettleman would also be improved to include the following lane geometries (where applicable):

Tienda/Kettleman:

- ❖ Westbound: Two (2) left-turn lanes, one (1) through-lane, and one (1) shared through-right-turn lane;
- ❖ Eastbound: One (1) left-turn lane, two (2) through lanes, and one (1) shared through/right-turn lane;
- ❖ Northbound: One (1) left-turn lane, one (1) shared through/right-turn;
- ❖ Southbound: One (1) left-turn lane, one (1) shared left/through-lane, and one (1) right-turn lane.

S. Mills/Kettleman:

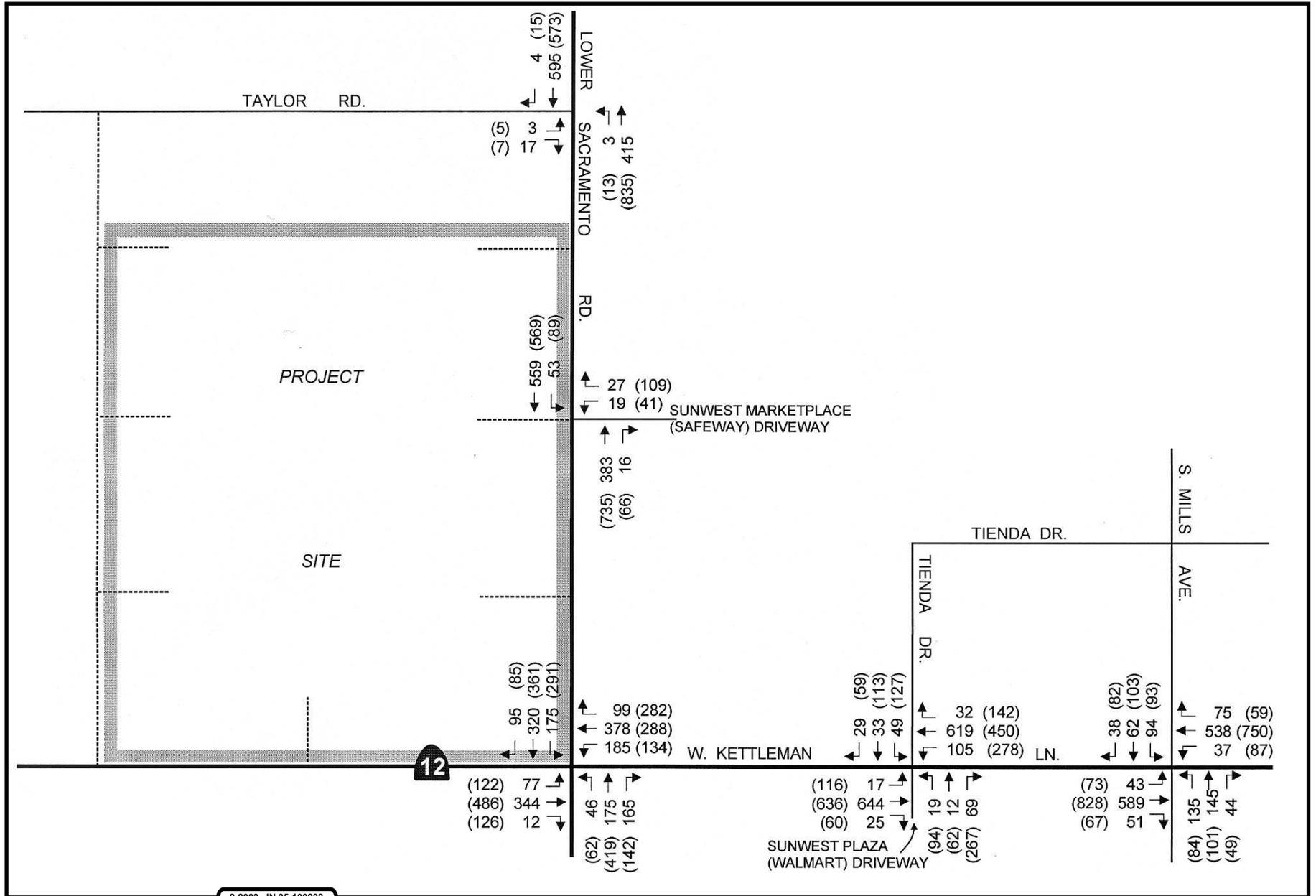
- ❖ Westbound: One (1) left-turn lane, two (2) through lanes, and one (1) right-turn lane.

Construction on the Kettleman Lane Gap Closure project is scheduled to begin in the Summer of 2003 and these improvements have been assumed for existing plus approved (future base) conditions.

Future Base Intersection Operating Conditions

With approved traffic added to existing intersection volumes, peak hour level-of-service (LOS) was calculated for each intersection and is shown in Table 3.2-4. As calculated, intersection LOS would remain unchanged from existing conditions with future base traffic. There would be slight increases in vehicle delays (seconds) at some locations.

¹² Paula Fernandez, Senior Traffic Engineer, City of Lodi, Personal communication on December 10, 2002.



Source: omni-means

2-2003 JN 35-100238

TABLE 3.2-4 EXISTING AND FUTURE BASE INTERSECTION LEVEL-OF-SERVICE AND DELAYS AM AND PM PEAK HOUR^{1, 2, 3}									
Intersection		(Seconds of Delay) Existing				(Seconds of Delay) Future Base			
		AM LOS		PM LOS		AM LOS		PM LOS	
1	L. Sacramento Rd./Taylor Rd.	A	8.7	B	10.2	B	10.6	B	10.5
2	L. Sacramento Rd./Sunwest-Safeway	B	11.1	B	14.3	B	11.4	B	15.0
3	L. Sacramento Rd./ Kettleman Ln.	C	31.2	C	32.9	C	31.5	C	32.9
4	Kettleman Ln./Tienda Dr. ⁴	C	21.1	D	37.5	C	20.8	D	37.2
5	Kettleman Ln./Mills Ave. ⁴	C	30.3	C	29.7	C	29.4	C	26.5
<p>1. Existing AM and PM peak hour intersection turning movement counts conducted by Omni-Means Engineers & Planners, April-May, 2002. PM peak hour counts also derived from a previous traffic study conducted for the project site by Fehr & Peers, Associates, January, 2001. These latter counts were corroborated by Omni-Means data collected in 2002.</p> <p>2. Level-of-Service (LOS) for unsignalized intersections is based on the <i>2000 Highway Capacity Manual</i>, Chapter 17, Unsignalized intersection. Average vehicle delays are expressed in seconds.</p> <p>3. LOS for signalized intersections based on the <i>2000 Highway Capacity Manual</i>, Chapter 16, signalized intersections, operational analyses. Average vehicle delays are expressed in seconds.</p> <p>4. With future base traffic conditions, intersection LOS at the Kettleman Ln./Tienda Dr., Kettleman Ln./Lower Sacramento Road and Kettleman Ln./Mills Ave. intersections would improve as a result of the Kettleman Lane Gap Closure Project.</p>									
Source: Omni-Means Engineers & Planners. December 2002.									

Relevant General Plan Goals and Policies

The following goals and policies are from the City of Lodi General Plan and are relevant to the proposed project.

- ❖ Goal A: To provide for a circulation system that accommodates existing and proposed land uses and provides for the efficient movement of people, goods and services within and through Lodi.

The City shall strive to maintain Level of Service C on local streets and at intersections. The acceptable level of service goal will be consistent with the financial resources available and the limits of technical feasibility.

- ❖ Goal G: To encourage a reduction in regional vehicle miles traveled.

3.2.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Thresholds of Significance - Future Base Plus Project Conditions

The City of Lodi's General Plan Circulation Element states that "the City shall strive to maintain LOS C on local streets and intersections. The acceptable LOS goal will be consistent with the financial resources available and the limits of technical feasibility." Based on discussion with City Engineering and Planning staff, Kettleman Lane and Lower Sacramento Road would not be considered "local streets". Rather, they are major arterial/highways providing regional east-west and north south access.¹³

Caltrans guidelines state that "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS."

Based on meetings and initial comments received from Caltrans and the City of Lodi, a finding of LOS D along these major routes would not be considered significant given approved, planned project, and cumulative circulation improvements.^{14,15}

Project Description

The proposed project would be made up of 299,817 square feet of commercial-retail uses. The main anchor tenant would be a Lowe's Home Improvement Warehouse totaling 162,075 square feet for which 27,100 would be a garden center. In addition to the Lowe's Home Improvement Warehouse, there would be 131,278 square feet of retail-commercial development and 6,464 square feet of fast-food restaurant uses. Direct access to the project site would be provided by Kettleman Lane and Lower Sacramento Road (refer to Exhibit 3.2-9, June 4, 2002 Project Site Plan).

(NOTE: the traffic analysis was conducted on a project of slightly greater size than for the rest of the environmental analysis. This is because the traffic assessment was underway and in City review prior to commencement of the environmental impact report. Since the traffic analysis was on a "larger" project than the current proposal, it represented a "worst-case" scenario for traffic analysis and was not changed for this EIR. The noise and air quality analyses depended on the traffic counts and are, therefore, consistent with the traffic analysis.)

Trip Generation

The project's daily and AM and PM peak hour trip generation has been based upon Institute of ITE trip generation research and a previous transportation study conducted for the site.^{16 17} The trip generation

¹³ Meeting with Sharon Welch (Senior Civil Engineer), Paula Fernandez (Senior Traffic Engineer), and J.D. Hightower (City Planner), City of Lodi, on October 15, 2002.

¹⁴ Caltrans, Guide For The Preparation of Traffic Impact Studies, January, 2001.

¹⁵ Mike Higgins, Caltrans, Letter to J.D. Hightower, City of Lodi, "Negative Deceleration Lowe's Center," Comment letter, September 26, 2002.

¹⁶ Institute of Transportation Engineers, Trip Generation, Shopping Centers (#820) and Fast-food Restaurants with Drive-Through (#834), 6th Edition, 1997.

rates are based on ITE's daily and peak hour trip generation equations/average rates for shopping center and fast-food restaurant uses. Trip rates for the Lowe's Home Improvement Warehouse were based on actual driveway counts conducted at amount of commercial-retail uses (293,353 square feet) and then applied to the remaining commercial retail uses. It is noted that since this is not a mixed-use project, no internal trip discount factor was applied to proposed project trip generation similar home improvement superstores. In addition to a main tenant building, shopping centers typically contain peripheral buildings or pads located on the perimeter of the center adjacent to streets and major access driveways. The gross number of trips for the project were calculated, then deduction factors for pass-by trips (see following sections) were applied.

With the Lowe's Home Improvement Warehouse trip generation calculated as a separate component of the project's overall trip generation, care was taken not to overestimate the remaining project trips related to other commercial-retail uses (excluding fast-fast restaurants). Based on ITE research, as a shopping center's area increases, their daily and peak hour trip generation rates per 1,000 square feet are proportionately smaller (although overall trip generation continues to increase with growing project size). For the proposed project, it would not be accurate to calculate trips for the remaining 131,278 square feet of retail uses using the corresponding shopping center rate as this would not reflect the entire size of the shopping center. For this reason, a shopping center trip generation rate was calculated for the entire amount of commercial-retail uses (293,353 s.f.) and then applied to the remaining commercial uses. It is noted that since this is not a mixed-use project, no internal trip discount factor was applied to proposed project trip generation.

As shown in Table 3.2-5 (page following), the proposed project would generate 14,941 daily trips with 768 trips during the AM peak hour and 1,395 trips and during the PM peak hour. A characteristic of commercial/retail businesses is "pass-by" trips, whereby a portion of the project's trips actually represent existing traffic that is already "passing by" the project site and is diverted into the site from other primary trip purposes. The project site location is also a consideration when using a "pass-by" factor. Since the proposed project site would be located at the City's southwest limits and in route to two highways, it is likely that traffic already on the street system would travel to the site. Based on previous studies conducted for home improvement projects and ITE research for peak hour pass-by trips, an average of 25% of the commercial-retail trips would be pass-by and 50% of the fast-food restaurant trips.¹⁸ This would result in 495 net new AM peak hour trips (269 in, 226 out) and 992 net new PM peak hour trips (476 in, 516 out). It is noted that pass-by trips would be present at all project driveways, but would not be distributed to outlying intersections (please refer to Transportation Appendices for ITE pass-by trip research on project components).

¹⁷ Fehr & Peers Associates, Ibid.

¹⁸ Institute of Transportation Engineers (ITE), Trip Generation Handbook, Peak hour pass-by rates for Home Improvement, Shopping Center, and Fast-Food uses, October, 1998.

**TABLE 3.2-5
PROPOSED PROJECT TRIP GENERATION¹**

A. Project Components:		
299,817 square foot shopping Center: (162,075 s.f.f Lowe's major tenant) (131,278 s.f. commercial-retail shops) (6,464 s.f. fast-food restaurant)		
B. Project Trip Generation:		
Lowe's		
Daily ² :	34.8 trips/1,000 sq. ft. x 162,075 sq. ft.	= 5,640 trips
AM Peak	1.92 trips/1,000 sq. ft. x 162,075 sq. ft.	= 311 (168 in, 143 out)
PM Peak	3.71 trips/1,000 sq. ft. x 162,075 sq. ft.	= 601 (283 in, 318 out)
AM Peak Pass-by	311 trips x 25%	= 78 (42 in, 36 out)
PM Peak Pass-by	601 trips x 25%	= 150 (71 in, 79 out)
Commercial Retail Shops:		
Daily	46.42 trips/1,000 sq. ft. x 131,278 sq. ft.	= 6,094 trips
AM Peak	1.03 trips/1,000 sq. ft. x 131,278 sq. ft.	= 135 (82 in, 53 out)
PM Peak	4.40 trips/1,000 sq. ft. x 131,278 sq. ft.	= 578 (277 in, 301 out)
AM Peak Pass-by	135 trips x 25%	= 34 (21 in, 13 out)
PM Peak Pass-by	578 trips x 25%	= 145 (70 in, 75 out)
Fast Food Restaurants		
Daily	496.12 trips/1,000 sq. ft. x 6,464 sq. ft.	= 3,207 trips
AM Peak	49.86 trips/1,000 sq. ft. x 6,464 sq. ft.	= 322 (164 in, 158 out)
PM Peak	33.48 trips/1,000 sq. ft. x 6,464 sq. ft.	= 216 (112 in, 104 out)
AM Peak Pass-by	322 trips x 50%	= 161 (82 in, 79 out)
PM Peak Pass-by	216 trips x 50%	= 108 (55 in, 53 out)
Total Net New Project Trips		
Daily Trips	14,941	
AM Trips	495 (269 in, 226 out)	
PM Trips	992 (476 in, 516 out)	
<ol style="list-style-type: none"> 1. Institute of Transportation Engineers (ITE), <u>Trip Generation</u>, Shopping Center land use (#820) and Fast-Food Restaurants land use (#834), 1997. Based on logarithmic equations (shopping center) and average rates (fast-food) for daily and peak hour shopping center uses. 2. Fehr & Peers Associates, Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, January 29, 2001. 3. Daily project trip generation does not include pass-by factor. 		
Source: Omni-Means Engineers & Planners, December 2002.		

Project Trip Distribution

The proposed project's vehicle distribution has been based primarily upon two previous studies conducted for commercial-retail project's on the site.^{19 20} Consideration was also given to existing traffic flows within the study area, nearby intersections, as well as freeway access. The proposed project's traffic distribution would be estimated as follows:

Kettleman Lane to/from the west:	20%
Kettleman Lane to/from the east:	30%
Lower Sacramento Road to/from the north:	35%
Lower Sacramento Road to/from the south:	<u>15%</u>
Total:	100%

Based on the estimated project distribution, AM and PM peak hour project trips only have been shown in Exhibit 3.2-3. Project trips have been added to future base volumes and are shown in Exhibit 3.2-4.

Planned Project Circulation Improvements

As part of proposed Vintner's Square project, specific improvements are planned for Lower Sacramento Road and Kettleman Lane along the project frontages and include the following (refer to Exhibit 3.2-9, Project Site Plan):

Lower Sacramento Road

Lower Sacramento Road would be widened to provide three (3) southbound travel lanes from the project's main access driveway opposite Sunwest Marketplace to Kettleman Lane. This third southbound lane adjacent to the project site would become a right-turn lane (drop lane) at Kettleman Lane.

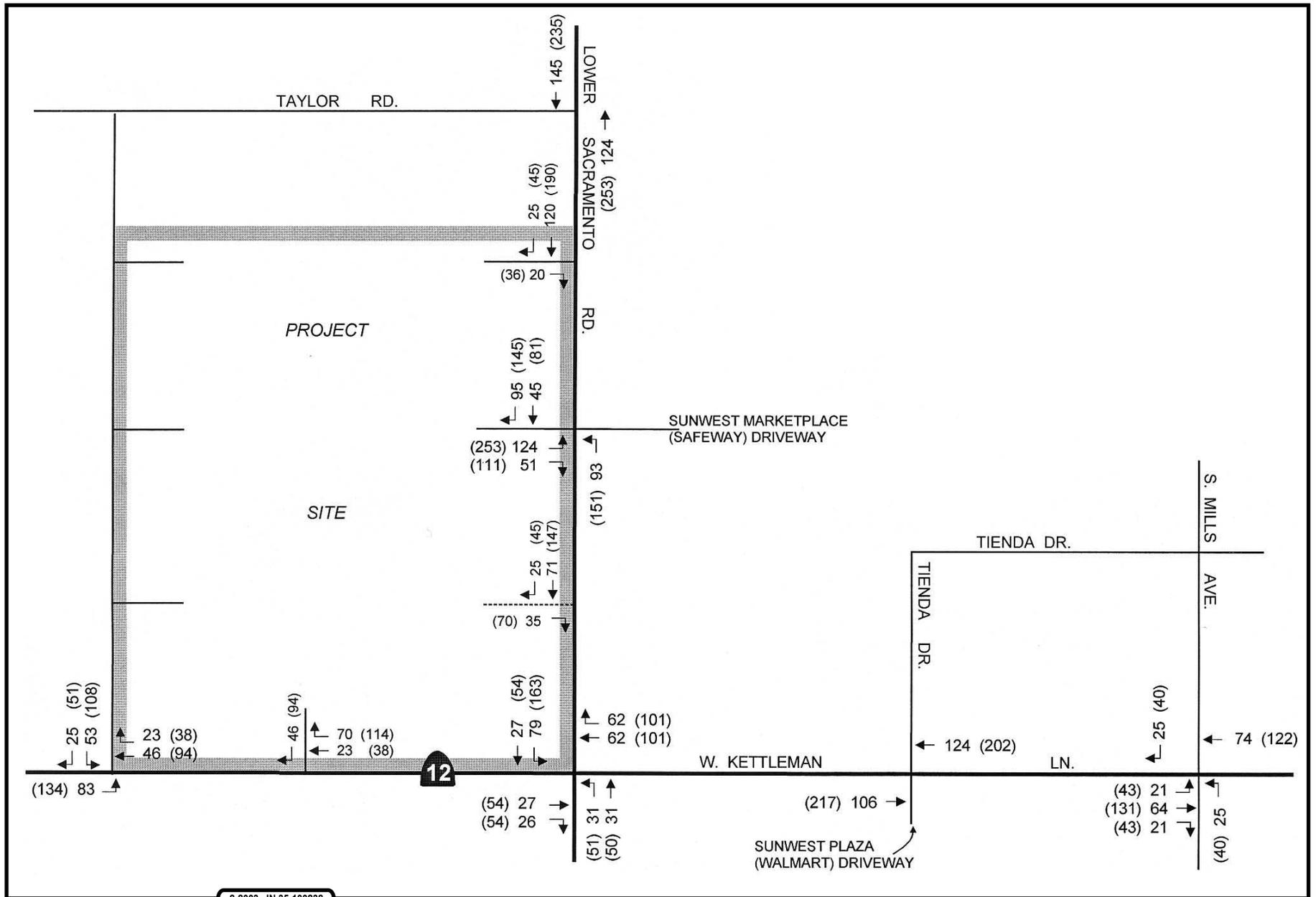
The raised median on Lower Sacramento Road (north of Kettleman Lane) would be extended through Taylor Road to preclude outbound (eastbound) left-turn movements from Taylor Road. Northbound (inbound) left-turn movements from Lower Sacramento Road onto Taylor Road would still be allowed.

A full-access driveway would be installed directly opposite the Sunset Marketplace driveway which would form the fourth approach leg (eastbound) of the signalized intersection.

Two secondary/limited access driveways would be located off Lower Sacramento Road. A northern-most driveway (located 400 feet north of Sunwest Marketplace) would allow right-turns-only for inbound/outbound traffic. A similar limited access driveway would be located 450 feet north of Kettleman Lane and would allow right-turns only in/out.

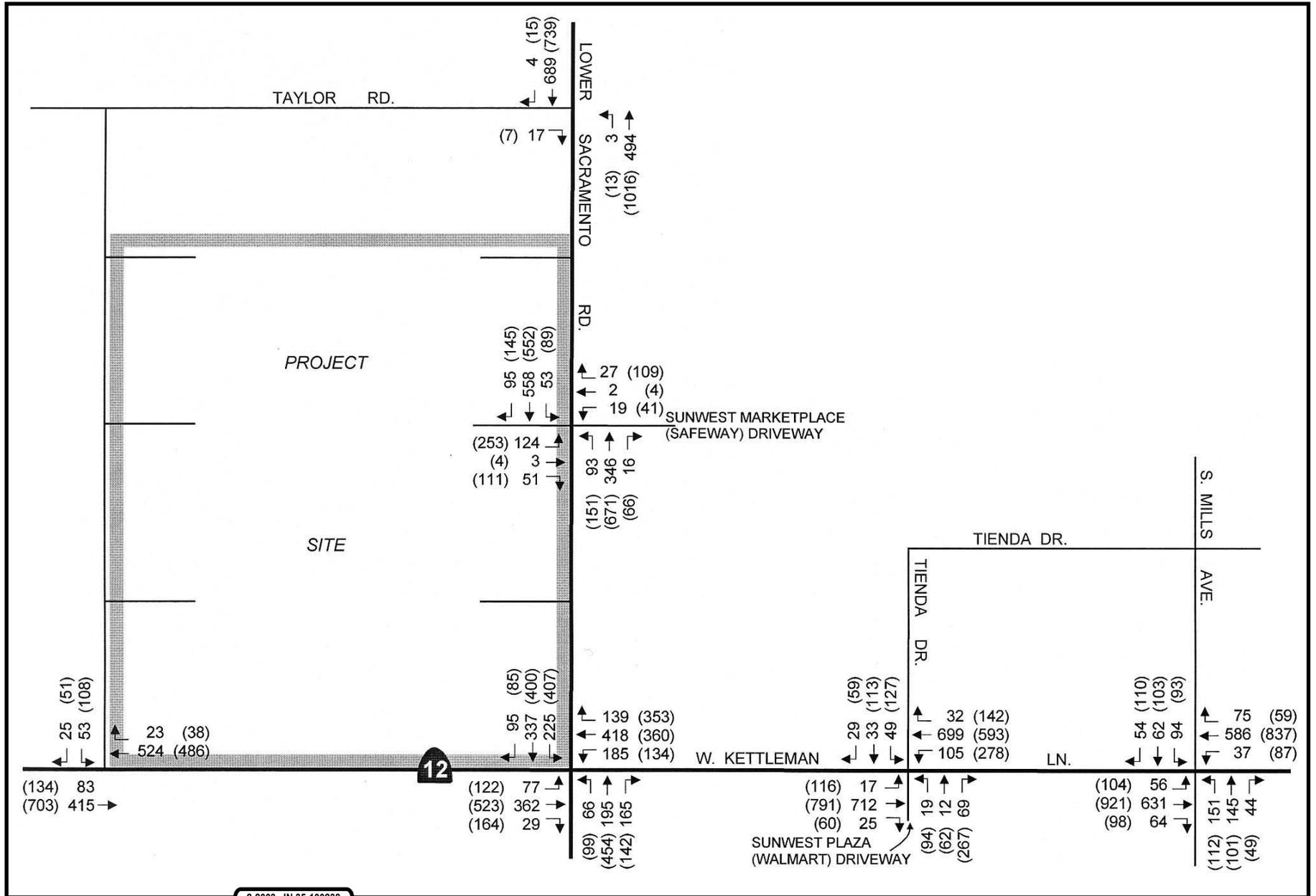
¹⁹ Fehr & Peers Associates, Ibid

²⁰ KD Anderson, Access Feasibility Analysis for the Kettleman Lane and Lower Sacramento Road Intersection in Lodi, California, City of Lodi, October 23, 1997.



Source: omni-means

2-2003 JN 35-100238



Source: omni-means

2-2003 JN 35-100238

Kettleman Lane

Road A would be constructed along the western frontage of the site and would provide direct access to/from the site. A two-lane roadway, Road A would connect with Taylor Road to the north as well as provide access to/from the project site via three driveways (one full-access driveway and two limited access driveways). At its intersection with Kettleman Lane, a signal would be installed which would allow full ingress/egress to the site. Kettleman Lane would be widened between Road A and Lower Sacramento Road to two eastbound lanes and two westbound lanes with a raised median. Any future median breaks along Road A should be located a minimum of 250 feet north of Kettleman Lane to avoid vehicle conflicts with the planned Kettleman/Road A intersection.

A secondary access driveway would be located approximately 700 feet west of Lower Sacramento Road and would provide right-turns only in/out of the project site.

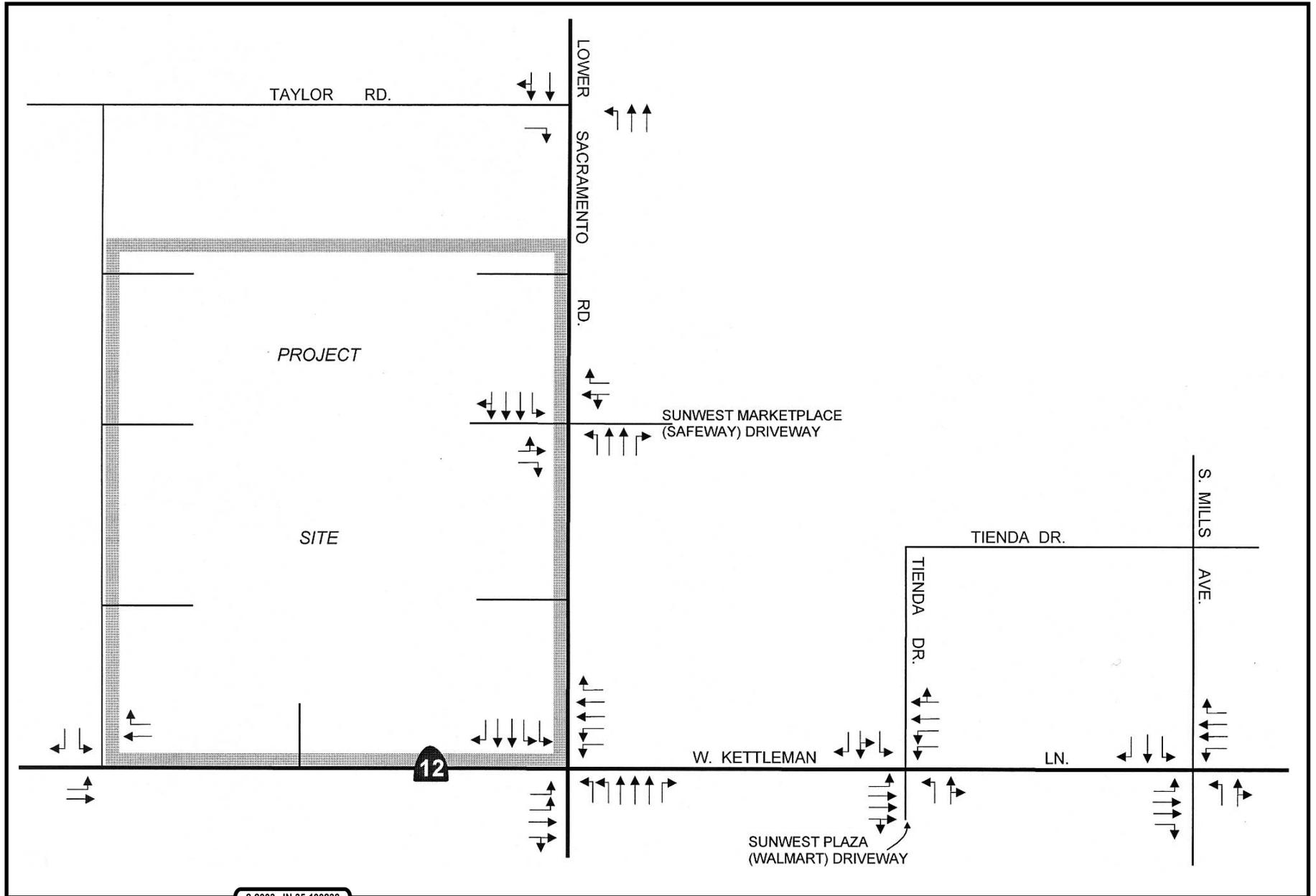
Future Base plus Project intersection lane geometries are shown in Exhibit 3.2-5.

Project Effects on Intersection Operations

IMPACT 3.2-A. Project Effects on Intersection Operations: Future base plus project traffic volumes would change peak hour LOS at Lower Sacramento Rd./Sunwest-Project Driveway. During the AM peak hour, intersection LOS would change from B (11.4 seconds) to LOS C (21.8 seconds) and from LOS B (15.0 seconds) to LOS C (26.2 seconds) during the PM peak hour. These changes would not trigger a significant impact under the City's threshold of significance. All other project study intersection's LOS would remain unchanged from future base conditions with the addition of proposed project traffic and, therefore, a less than significant impact would result. (Less Than Significant Impact).

With project traffic added to future base traffic volumes, peak hour LOS would change at one study intersection. As shown in Table 3.2.4, the intersection of Lower Sacramento Rd./Sunwest-Project Driveway would change from LOS B (11.4 seconds) to LOS C (21.8 seconds) during the AM peak hour and from LOS B (15.0 seconds) to LOS C (26.2 seconds) during the PM peak hour. This is primarily related to planned project improvements at this location and the addition of a fourth eastbound intersection approach leg (main project driveway). All other project study intersection's LOS would remain unchanged from future base conditions with the addition of proposed project traffic. Again, this would primarily be due to planned project improvements along its frontages with Lower Sacramento Road and Kettleman Lane as well as improvements related to the Kettleman Lane Gap Closure project.

Mitigation 3.2-A. A less than significant impact was identified and, therefore, no mitigation is required.



Source: omni-means

2-2003 JN 35-100238



NOT TO SCALE

VINTNER'S SQUARE SHOPPING CENTER
Future Base + Project Intersection Lane Geometries

Exhibit 3.2-5

Cumulative Traffic Growth

Methodology

Cumulative traffic projections for the PM peak hours were derived from previous transportation studies performed by Fehr & Peers Associates for the project site and Lower Sacramento Road.^{21 22}

TABLE 3.2.6 FUTURE BASE AND FUTURE BASE + PROJECT INTERSECTION LEVEL-OF-SERVICE AM AND PM PEAK HOUR^{1 2}									
Intersection		Future Base				Future Base + Project			
		AM LOS		PM LOS		AM LOS		PM LOS	
1	L. Sacramento/Taylor	B	10.6 secs	B	10.5 secs.	B	11.1 secs.	B	11.3 secs.
2	L. Sacramento/Sun.Safe.	B	11.4 secs.	B	15.0 secs.	C	21.8 secs.	C	26.2 secs.
3	L. Sacramento/Kettleman	C	31.5 secs.	C	32.9 secs.	C	31.9 secs.	C	34.0 secs.
4	Kettleman/Tienda	C	20.8 secs.	D	37.2 secs.	C	20.8 secs.	D	38.1 secs.
5	Kettleman/ Mills	C	29.4 secs.	C	26.5 secs.	C	29.6 secs.	C	29.3 secs.
6	Kettleman/Road "A" ³	--	-----	--	-----	B	14.9 secs.	B	14.8 secs.
<p>1. Existing AM and PM peak hour intersection turning movement counts conducted by Omni-Means Engineers & Planners, City of Lodi, April/May 2002.</p> <p>2. Level-of-Service (LOS) for signalized and unsignalized intersections is based on the <i>2000 Highway Capacity Manual</i>, Chapters 16 and 17. Average vehicle delays are expressed in seconds.</p> <p>3. With proposed project traffic, Road "A" would be constructed along the project site's western frontage. The intersection of Kettleman/Road "A" would be signalized and provide direct access to the project site. As a result of this new intersection, the raised median on Lower Sacramento Road would be extended through Taylor Road preventing left-turn access in/out.</p>									
Source: Omni-Means Engineers & Planners. December 2002.									

Based on these reports, PM peak hour cumulative projections were based on the San Joaquin County Council of Governments (SJCOG) travel demand model. This travel demand was then adjusted to account for City of Lodi land uses, changes in the roadway network, and changes in the traffic analysis zones (TAZ). Cumulative volume projections for this study represent horizon year 2020.

It is noted that AM peak hour cumulative projections are not available at this time. Based on discussions with City Engineering staff, the percentage increases in daily and PM peak hour cumulative volumes were reviewed. The PM peak hour cumulative percentage increases were then applied to existing AM peak hour intersection volumes to generate the same proportional increase in

²¹ Fehr & Peers Associates, Traffic Impact Study for the Proposed Home Depot on Kettleman Lane in the City of Lodi, Draft Report, January 29, 2001.

²² Fehr & Peers Associates, Traffic Impact Study for the Lower Sacramento Road Widening Project, City of Lodi, Final Report, February 15, 2000.

volumes for the Year 2020. AM and PM peak hour Year 2020 cumulative without the proposed project are shown in Exhibit 3.2-6.

Cumulative Roadway/Intersection Improvements

Consistent with previous cumulative traffic studies and discussions with Lodi Engineering staff, the following circulation improvements are planned to occur on Lower Sacramento Road, Kettleman Lane, and Road A:

Lower Sacramento Road would be widened adjacent to the project site to provide an additional southbound lane. South of Kettleman lane, studies have indicated the need for six travel lanes. Discussions with City Engineering staff indicate that cumulative volume projections for this roadway segment may be revised based on ongoing studies.²³ However, for the purpose of this study six travel lanes have been assumed on Lower Sacramento Road south of Kettleman Lane.

Kettleman Lane would be widened to six travel lanes between Lower Sacramento Road and Tienda Drive with a raised, landscaped median. East of Tienda Drive, the roadway would continue as a six-lane street. However, the third eastbound lane (from Tienda Drive) would not be dropped until just east of Sylvan Way²⁴

Road A would be extended south from Kettleman Lane to West Century Boulevard north from Kettleman Lane to Vine Street and provide access to planned and proposed residential and retail development. Similarly, Road A would also be extended north from Kettleman Lane past the proposed project site to Vine Street.

As a result of cumulative roadway improvements, intersection lane geometries would change at the following four intersections:

Kettleman Ln./Lower Sacramento Rd

- ❖ All four approach legs would have two (2) left-turn lanes, three (3) through-lanes, and one (1) right-turn lane.

Kettleman Ln./Tienda Dr.

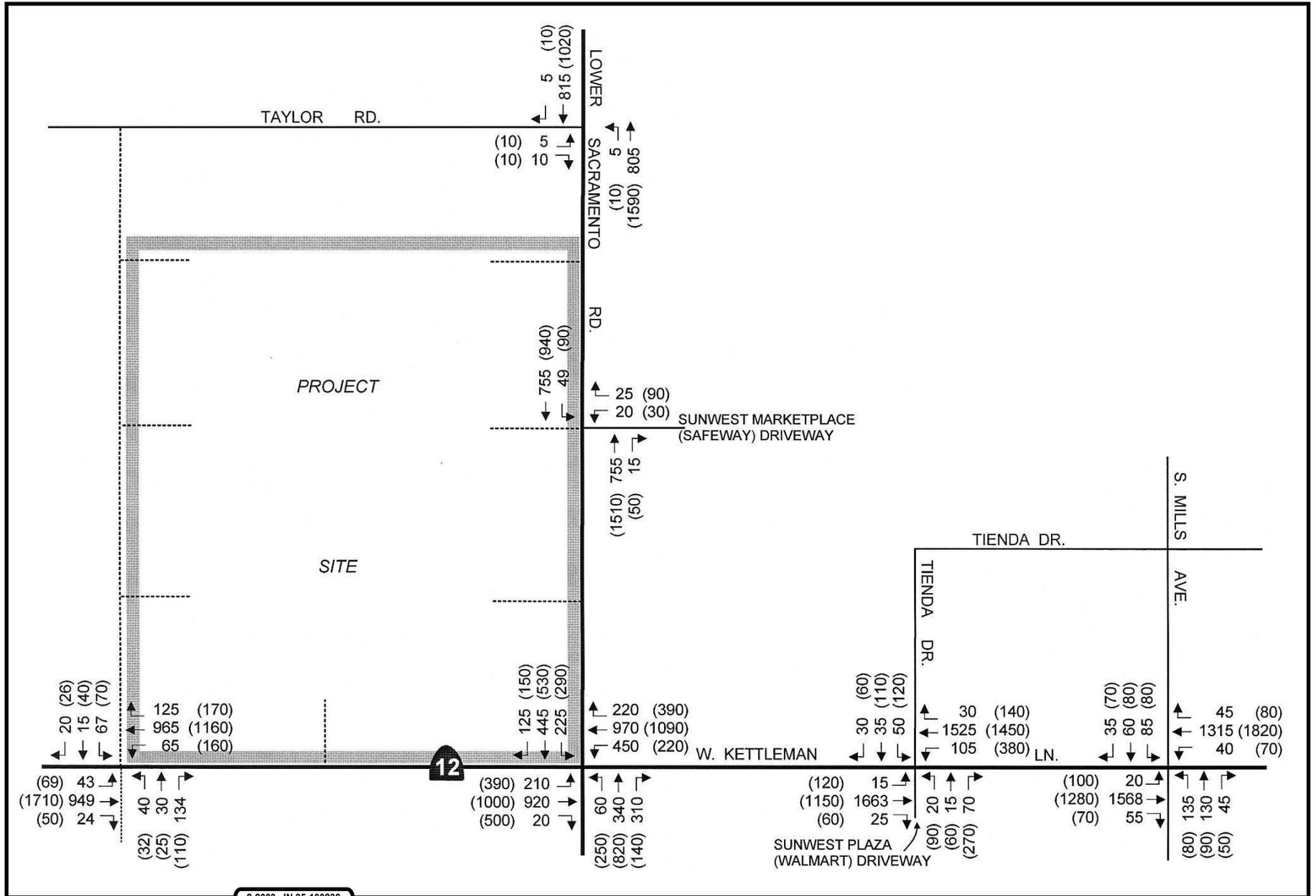
- ❖ The westbound approach leg on Kettleman Lane would have two (2) left-turn lanes, two (2) through-lanes, and one (1) shared through/right-turn lane.

Kettleman Ln./S. Mills Ave.

- ❖ The eastbound and westbound approach legs on Kettleman Lane would have one (1) left-turn lane, two (2) through-lanes, and one (1) shared through/right-turn lane.

²³ Paula Fernandez, Senior Traffic Engineer, City of Lodi, Personal communication on May 15, 2002.

²⁴ Paula Fernandez, Senior Traffic Engineer, City of Lodi, Ibid.



Source: omni-means

2-2003 JN 35-100238

Kettleman Ln./Road A

- ❖ The northbound/southbound approach legs on Road A would have one (1) left-turn lane, one (1) through lane, and one (1) right-turn lane;
- ❖ The westbound approach leg on Kettleman Lane would have two (2) left-turn lanes, two (2) through-lanes, and one (1) shared through/right-turn lane;
- ❖ The eastbound approach leg on Kettleman Lane would have one (1) left-turn lane, two (2) through-lanes, and one (1) shared through/right-turn lane.

Cumulative (and Cumulative + Project) intersection lane geometries are illustrated on Exhibit 3.2-7.

Effects of Cumulative Traffic (Without Project) on Intersection Operation

With cumulative no project Year 2020 traffic volumes, study intersection LOS would operate at acceptable levels. Significant peak hour volume increases in through-traffic would be experienced along Lower Sacramento Road and Kettleman Lane. However, with planned roadway widening, traffic flows would not reach significant congested levels. As shown in Table 3.2.5, the intersection of Kettleman Ln./Lower Sacramento Rd. would be functioning at LOS D (41.5 seconds) during the PM peak hour. Similarly, the intersection of Kettleman Ln./Tienda Dr. would operate at LOS D (44.8 seconds) during the PM peak hour.

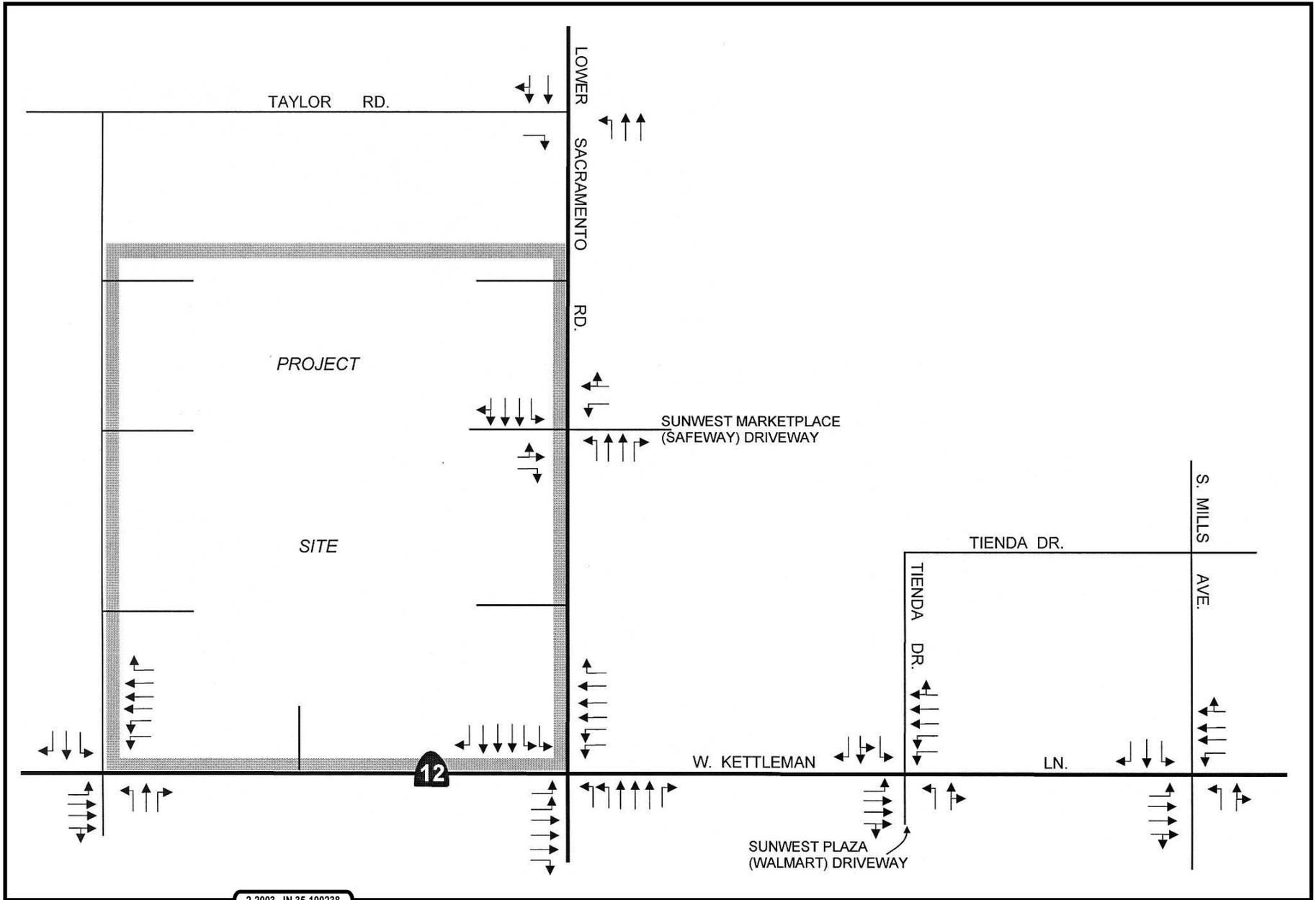
All remaining study intersections would operate at LOS C or better during the AM and PM peak hours with cumulative traffic.

Effects of Cumulative Traffic With Project on Intersection Operation

IMPACT 3.2-B. Cumulative Plus Project Intersection Operations: With proposed project traffic, study intersection LOS would remain unchanged from cumulative (no project) conditions. There would be slight increases in vehicle delays (1-8 seconds) at some study locations, which is not considered a substantial and adverse change. (Less Than Significant Cumulative Impact).

Year 2020 cumulative traffic projections contain specific land use assumptions for the project site and encompassing traffic analysis zone (TAZ). These land use projections are based on the City of Lodi's General Plan buildout. For this reason, cumulative volume projections on Lower Sacramento Road and Kettleman Lane already contain trip generation specific to the proposed project site. City of Lodi Engineering staff made a trip generation comparison between projected General Plan land uses for the subject TAZ (#172) and those now being proposed as part of the project and other planned development within the TAZ.²⁵ The net difference in daily and peak hour trip generation between City of Lodi land use projections and the proposed project was calculated so as not to over-estimate cumulative plus project impacts to the street network.

²⁵ Paula Fernandez, Senior Traffic Engineer, City of Lodi, "Vitners Square Shopping Center, Proposed Project and Modified San Joaquin County of Governments Model", Daily and peak hour trip generation, October 28, 2002.



Source: omni-means

2-2003 JN 35-100238



NOT TO SCALE

VINTNER'S SQUARE SHOPPING CENTER
Cumulative Intersection Lane Geometries

Exhibit 3.2-7

Intersection		Cumulative				Cumulative + Project			
		AM LOS		PM LOS		AM LOS		PM LOS	
1	L. Sacramento/Taylor	B	11.7 secs.	B	13.0 secs.	B	12.1 secs.	B	13.0 secs.
2	L. Sacramento/Sun.Safe.	B	12.3 secs	C	20.8 secs.	B	20.0 secs.	C	28.1 secs
3	L. Sacramento/Kettleman	C	35.0 secs.	D	41.5 secs.	C	35.0 secs.	D	41.6 secs.
4	Kettleman/Tienda	C	24.5 secs.	D	44.8 secs.	C	25.0 secs.	D	45.0 secs.
5	Kettleman/Mills	C	29.7 secs.	C	25.7 secs.	C	30.3 secs.	C	25.9 secs.
6	Kettleman/Road "A" ³	C	24.7 secs.	C	25.2 secs.	C	26.5 secs.	C	32.2. secs.

1. Existing AM and PM peak hour intersection turning movement counts conducted by Omni-Means Engineers & Planners, City of Lodi, April/May 2002.

2. Level-of-Service (LOS) for signalized and unsignalized intersections is based on the 2000 Highway Capacity Manual, Chapters 16 and 17. Average vehicle delays are expressed in seconds.

3. With proposed project traffic, Road "A" would be constructed along the project site's western frontage. The intersection of Kettleman/Road "A" would be signalized and provide direct access to the project site. As a result of this new intersection, the raised median on Lower Sacramento Road would be extended through Taylor Road preventing left-turn access outbound (eastbound).

Source: Omni-Means Engineers & Planners. December 2002.

Based on City calculations, the net increase in project trips for cumulative conditions (compared with the model projections) would be 1,481 daily trips with 363 AM peak hour trips and 41 PM peak hour trips (see Appendices for Trip Generation Comparison).

Proposed AM and PM peak hour net project trips were added to cumulative no project volumes and are shown in Exhibit 3.2-8. With proposed project traffic, study intersection LOS would remain unchanged from cumulative (no project) conditions. There would be slight increases in vehicle delays (1-8 seconds) at some study locations.

Mitigation 3.2-B. A less than significant impact was identified and, therefore, no mitigation is required.

IMPACT 3.2-C. Project Access and Circulation: Three project access drives are proposed with the project along its Lower Sacramento Road frontage. The two limited access drives would provide sufficient storage for vehicles. For the main access driveway's eastbound (outbound) approach opposite the Sunwest Marketplace driveway, projected queue lengths for the AM and PM peak hours are 3.6 and 8 vehicles, respectively, or approximately 90 feet and 200 feet of storage length. During the PM peak hour, a vehicle queue of 200 feet would extend back to the north-south drive aisle (between the Lowe's building and shops adjacent to Lower Sacramento Road) and result in an adverse impact. (Significant Impact Without Mitigation).

Site Access

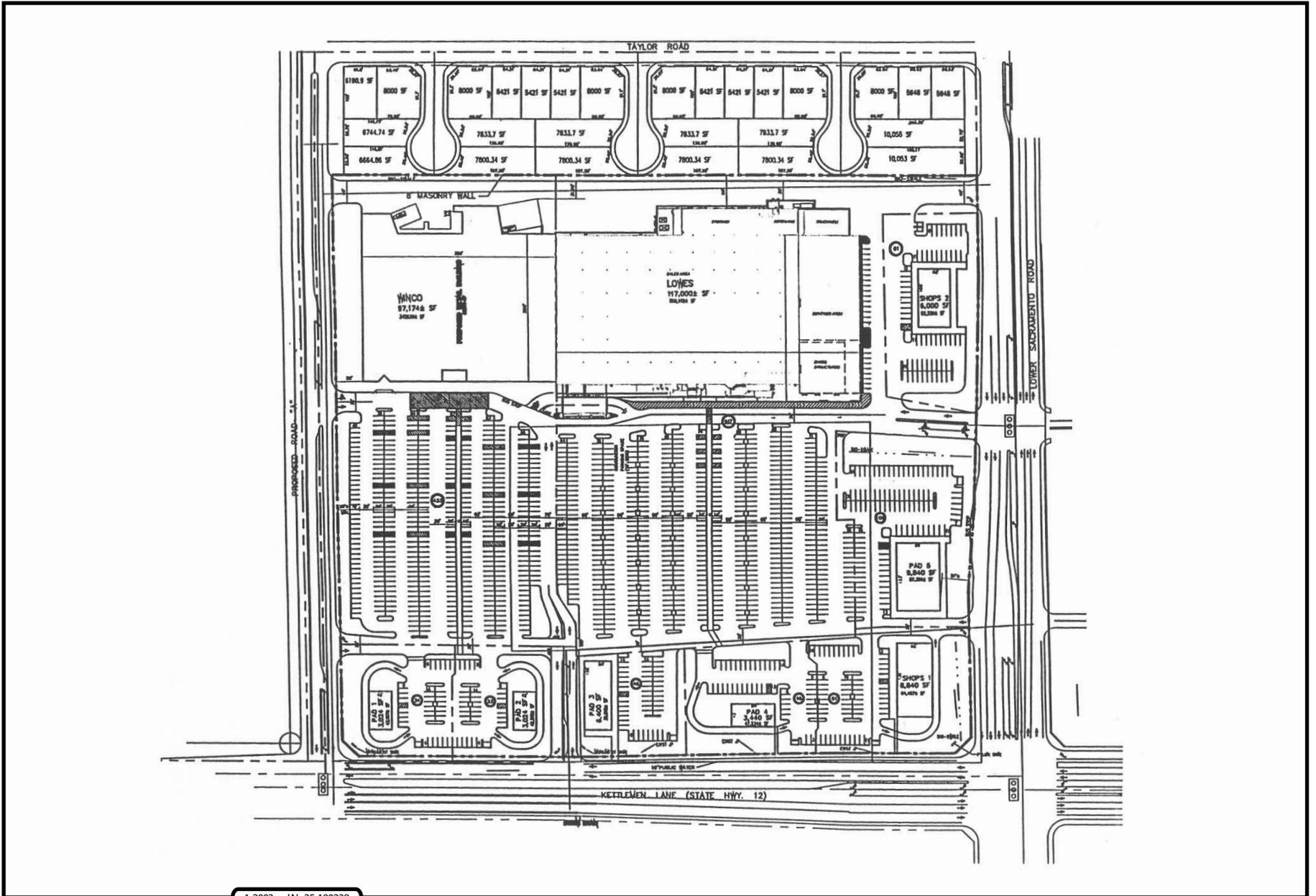
The proposed project site would be located on the northwest quadrant of the Lower Sacramento Road/Kettleman Lane intersection. The June 4, 2002 project site plan is illustrated in Exhibit 3.2-9.²⁶ From Lower Sacramento Road, there would be three project access driveways. The main full-access driveway would be located opposite the existing Sunwest Marketplace driveway. A signalized intersection, this full-access driveway would form the eastbound approach leg of the intersection and would provide access to the Lowe's Home Improvement Warehouse, shops, and parking areas located on the northern half of the project site. Two secondary access driveways (one northern, one southern) off Lower Sacramento Road would provide for right-turns-only in/out of the project site. The northern-most driveway would be located 400 feet north of the full-access driveway and would provide access mainly to the rear drive aisle for truck loading and to shops on the northeast portion of the site. The southern-most driveway would provide access to retail shops and restaurants located along the southern portion of the project site. This limited access (right-turns in/out only) driveway would be located approximately 250 feet north of Kettleman Lane so as not to interfere with traffic operations at the Kettleman/Lower Sacramento intersection

Two project access points would be located off Kettleman Lane; one right-turn-only (in/out) driveway, and the planned north-south Road "A". The closest access to the Lower Sacramento/Kettleman intersection would be a limited access roadway serving proposed retail shops and restaurants along the project's southern frontage (approximately 700 feet west of Lower Sacramento Road). Road "A" would be located 1,200 feet west of Lower Sacramento Road. Forming a new "t-type" signalized intersection with Kettleman Lane, Road "A" would extend in a northerly direction to Taylor Road and would be a two-lane street with a raised median with openings for selected east-west internal project drives. Three accessways located off Road "A" would provide access to different areas of the project site. The first access would be situated 225 feet north of Kettleman Lane and would be restricted to right-turns-only in/out. A full-access driveway would be located at approximately the site's mid-point along Road "A" and would provide access to the proposed Winco, Lowe's, and the large parking field to the south. A third limited access driveway would be located approximately 450 feet south of Taylor Road and would provide truck loading access to the rear of the Winco and Lowe's Home Improvement Warehouse.

Vehicle queues at the proposed project's main access at Lower Sacramento Road have been evaluated for future base plus project conditions. During the AM and PM peak hours, the inbound queues (95%) for northbound left-turn movements would be 2.5 vehicles and 4.3 vehicles. Based on a vehicle design length of 25 feet, this would equate to 62.5 feet and 108 feet. Vehicle storage for the inbound left-turn lane would be approximately 175-180 feet. This would be more than adequate for projected vehicle queue lengths. For the main access driveway's eastbound (outbound) approach, projected queue lengths for the AM and PM peak hours are 3.6 and 8 vehicles, respectively. This would equate to

90 feet and 200 feet of storage length. During the PM peak hour, a vehicle queue of 200 feet would extend back to the north-south drive aisle (between the Lowe's building and shops adjacent to Lower Sacramento Road).

²⁶ Paul Smith, Paul B. Smith Company, Lowe's Home Improvement Warehouse and Retail Center Site Plan, June 4, 2002.



1-2003 JN 35-100238

Source: omni-means



It is recommended that a "Keep Clear" legend be striped at this internal intersection.

The remaining full-access driveway at Kettleman/Road "A" would have adequate storage lengths for both inbound and outbound left-turn lanes based estimated vehicle queue lengths. The eastbound left-turn lane on Kettleman Lane is estimated to have the longest vehicle queue of 3.7 vehicles during the PM peak hour. This would equate to 92.5 feet of storage length. It is expected that the minimum storage length for this eastbound left-turn movement would be 150 feet (an exact design for this eastbound Kettleman Lane approach is not available).

Mitigation 3.2-C. Prior to occupancy of either of the main anchor stores, the applicant shall stripe a "Keep Clear" legend at main access driveway's eastbound (outbound) approach to ensure adequate internal intersection movement. This mitigation measure would reduce the impact to a less than significant level. (Less Than Significant With Mitigation).

IMPACT 3.2-D. Internal Vehicular Circulation: Based upon review of the site plan and number of anticipated vehicles during peak shopping periods, some internal circulation would be congested at internal parking drive aisles that intersect with major access driveways to and from Lower Sacramento Road, Kettleman Lane and Road A. Other internal circulation would be adequate. (Less Than Significant Impact).

With the proposed project being served by multiple driveways, project-related trips would be dispersed throughout the site. With the major tenant buildings located in the northern half of the project site, a large parking field would be located on the southern portion of the site between the outlying southern retail pads and major tenant buildings. To reduce vehicle conflicts within the site, it is recommended that stop-sign controls be installed on internal parking drive aisles where they intersect with major access driveways to/from Lower Sacramento Road, Kettleman Lane, and Road "A".

Internal circulation would be adequate. Each project driveway off Lower Sacramento Road would extend as an east-west internal drive aisle and essentially connect with three project driveways off Road "A". The northern-most drive aisle (in back of the proposed Winco and Lowe's) would be 40 feet wide to accommodate truck traffic while the other two drive aisles would each have a 30 foot width. The northern-most drive aisle was also evaluated for sufficient truck turning radii for large trucks. Based on scaled truck turning templates, there would be sufficient radii for trucks accessing the loading dock areas from Road "A" and/or Lower Sacramento Road. There would be a main north-south drive aisle extending between the limited access driveway from Kettleman Lane to the Winco/Lowe's buildings.

Mitigation 3.2-D. Prior to occupancy of the first major anchor, stop-sign controls shall be installed on internal parking drive aisles where they intersect with major access driveways to/from Lower Sacramento Road, Kettleman Lane, and Road "A". (Less Than Significant With Mitigation).

IMPACT 3.2-E. Pedestrian Circulation and Access. Pedestrian access and circulation is proposed to be provided through the installation of pedestrian sidewalks and internal pedestrian links. However, a pedestrian link is not planned at the northwest corner of the Lower Sacramento Road/Kettleman Lane intersection for on- and off-site access. A bus stop is planned along the west side of Lower Sacramento Road between the main shopping center access driveway (opposite the Sunwest Marketplace), no assurance has been proposed to comply with the American with Disabilities Act (ADA). Both of these conditions, unmitigated, would result in a significant impact. (Significant Impact Without Mitigation).

Pedestrian circulation/access would be provided through pedestrian sidewalks and internal pedestrian links. Specifically, there would be pedestrian sidewalks along the entire perimeter of the project site as well as around all project buildings and pads. Two internal north-south pedestrian sidewalks/crosswalks would link retail shops/restaurants along the site's southern perimeter through the large parking field to the Winco/Lowe's buildings to the north. One north-south pedestrian linkage would extend between the Winco building and the other from the Lowe's building to retail shops along the southern frontage.

The Lower Sacramento/Kettleman Lane intersection would likely be major pedestrian crossing location between off/on-site uses. A clear pedestrian link should be provided at the northwest corner of this intersection to on-site uses located in the northern half of the project site (Lowe's and Winco) and retail shops located along the southern portion of the site. As planned, a bus-stop is planned along the west side of Lower Sacramento Road between the proposed project's main access driveway (opposite Sunwest Marketplace) and limited access driveway to the south. This bus-stop would provide access for the San Joaquin County Rapid Transit buses and should be ADA accessible. From this transit stop, pedestrian sidewalks and/or paths should provide clear access north or south to various retail areas on the project site.

The northwest corner of this intersection to on-site uses located in the northern half of the project site (Lowe's and Winco) and retail shops located along the southern portion of the site. As planned, a bus-stop turnout is planned along the west side of Lower Sacramento Road between the proposed project's main access driveway (opposite Sunwest Marketplace) and limited access driveway to the south. This bus-stop would provide access for the San Joaquin County Rapid Transit buses and should be ADA accessible. From this transit stop, pedestrian sidewalks and/or paths should provide clear access north or south to various retail areas on the project site.

Mitigation 3.2-E. Prior to occupancy of the first main anchor store, a clear pedestrian link shall be provided at the northwest corner of the intersection of Lower Sacramento Road and Kettleman Land to accommodate on- and off-site uses. Moreover, the applicant shall ensure that the bus stop to be provided along the project's main access driveway (opposite the Sunwest Marketplace) is constructed in accordance with the ADA standards. (Less Than Significant With Mitigation).

IMPACT 3.2-F. Consistency with City of Lodi Master Circulation Plans: The project would generate sufficient traffic volumes and is planned to be constructed during the time that the City is planning to make improvements along Kettleman Lane (gap closure project) and Lower Sacramento Road. The project will also generate sufficient traffic to trigger the installation of

Road A, consistent with the Westside Facilities Master Plan design. If the project design and construction timing is not adequately coordinated with the implementation of the Kettleman Lane Gap closure project, requirements of the Westside Facilities Master Plan and City desired improvements along the project's Lower Sacramento Road frontage, significant impacts would result. (Less Than Significant With Mitigation)

The two most impacted master plans that the project is expected to impact are: 1) The street plans for Kettleman Lane and Lower Sacramento Road and 2) the storm water management plan. The Public Works Department and the applicant have worked diligently towards design solutions to ensure the proper operation of drainage and roadways and implementation of these two important plans. These two issues are tied together as storm water lines are expected to be located within segments of both streets.

The project would generate a substantial amount of traffic. According to the traffic study conducted for the project, the shopping center would generate approximately 14,941 Average Daily Trips with 495 AM peak hour trips and 992 PM peak hour trips. Coordination between improvements planned by the project and City projects is the key for successful traffic management. Two City projects are crucial towards the feasibility of this project: 1) Lower Sacramento Road frontage widening; and 2) Kettleman Lane gap closure project. Both of these projects are scheduled to begin construction in the spring of 2003. While the start of construction for the center may take place before the spring of 2003, the project is tied to these roadway projects.

The City has been actively pursuing the widening and improvement of Lower Sacramento Road and a gap closure project on Kettleman Lane/State Highway 12. Both of these roadways are regional transportation facilities that require dedication of land from the project site. Pursuant to Section 17.30.080 of the Zoning Ordinance, the project proposes to dedicate property on Lower Sacramento Road frontage and along the Kettleman Lane frontage consistent with the design of the Kettleman Lane Gap closure project. In accordance with the Zoning Ordinance, the developer shall make full improvements to both streets as well as Road "A". These improvements shall be in accordance with the standards adopted in the Westside Facilities Plan. The most recent traffic study completed for the project concluded that these street improvements would allow the streets to operate at an acceptable level of service.

Significant improvements to intersections are also called for by the most current (i.e., Feb.19, 2003) traffic study. The project will construct a new signal at the intersection of Road "A" and Kettleman Lane. The project will also widen and make improvements to the intersection of Kettleman Lane and Lower Sacramento Road. Additionally the center will complete the intersection at the Sunwest Marketplace center.

Pedestrian details are called for by the project plan. The project will have a SMART and Grapeline transit stop on Lower Sacramento Road. The plan calls for a bus turn-out south of the signalized intersection with the Sunwest Marketplace shopping center. To foster a friendlier pedestrian environment, this stop has been conditioned to be located north of this intersection providing a direct pedestrian access to the two major tenants of the center. In addition to SMART transit service, the Lodi Grapevine will provide transit service to the center and have an interior bus stop within the center. Both of these stops will have transit shelters and benches for transit users. Pedestrian circulation is also analyzed by the traffic report for the center. A mitigation measure for the project

states that, “With respect to the Lower Sacramento Road/Kettleman Lane intersection, a clear pedestrian link should be provided at the northwest corner of this intersection to on-site uses located in the northern half of the project site (Lowe’s and Winco) and retail shops located along the southern portion of the site.” The submitted site plan will need to be revised to carry out this mitigation measure. However, this type of detail is more appropriate at the Site Plan and Architectural Review Committee level. Staff has conditioned the project to reflect this concern.

Thus, as conditioned, the project will comply with other City of Lodi master plans. To ensure the conditions of approval are applied to the project, the following mitigation measures are required of the project.

Mitigation 3.2-F.1. Prior to occupancy of any retail use at the shopping center, the applicant shall construct Road A, in accordance with the Westside Facilities Master Plan, from Kettleman Lane to Taylor Road. Moreover, the applicant shall install a signalized intersection at Road A and Kettleman Lane. The design and installation of these improvements shall conduct to the approved of the City of Lodi Planning Director and Public Works Director. (Less Than Significant With Mitigation).

Mitigation 3.2-F.2. Prior to occupancy of any retail use, the applicant shall submit to, and obtain approval from, the Director of Public Work, for improvements to widen and make improvements to the intersection of Kettleman Lane and Lower Sacramento Road. (Less Than Significant With Mitigation).

Mitigation 3.2-F.3. The project applicant shall dedicate right of way along the southern project boundary and westerly adjoining property sufficient to make Kettleman Road widening improvements consistent with the Kettleman Lane Gap closure project and CalTrans design requirements. The Director of Public Works shall approve the area to be dedicated to Caltrans for use in making Gap closure improvements. (Less Than Significant With Mitigation).

IMPACT 3.2-G. Consistency with General Plan Policies: The proposed project would comply with relevant Circulation Element goals and policies, and provide sufficient parking to comply with City parking standards for the proposed use. Consequently, the project would result in less than significant impacts with regard to consistency with relevant General Plan policies. (Less Than Significant Impact).

Relative to General Plan Circulation Element Goal A, the proposed project includes the addition of intersections improvements at Lower Sacramento Road and Kettleman Lane as well as the intersection of the planned Road “A” and Kettleman Lane. The level of service at the intersections with the proposed project would be LOS “A” or LOS “B” for much of the day, well within the desired City standards for intersections operations. However, during peak hours the intersection is projected to operate at a LOS “D”. The level of service at peak hours needs to be balanced with financial capability and Lodi’s desire to create an inviting pedestrian environment. Additionally, the Caltrans Guide for the Preparation of Traffic Impact Studies, specifically states that, “Caltrans endeavors to maintain a target LOS at the transition between LOS ‘C’ and LOS ‘D’ on state highways.” Thus, the

project improvements will not only be consistent with the City's General Plan but also with the adopted Caltrans standards.

Relative to Goal G, the proposed project would provide for retail services within the City of Lodi, thereby reducing dependency of shoppers to travel outside the market area. By providing an unmet consumer demand within the community, the construction of a shopping center with a major home improvement center will ensure a reduction in regional vehicle miles traveled outside the market area, and outside of the City of Lodi. Currently, there is a market share loss within Lodi, which means that Lodi residents are spending more time on the road to meet their needs. By featuring a regional home improvement store within the center, the project is expected to reduce the travel distance and time that Lodi residents currently spend to meet their needs.

The submitted plan complies with Chapter 17.60, Off-Street Parking. This ordinance sets a minimum standard of one space per 500 square feet for general commercial and retail sales. The proposed site plan shows an overall ratio of one space every 208 square feet. Therefore, the center meets the minimum parking requirement for parking.

Mitigation 3.2-G. A less than significant impact was identified and, therefore, no mitigation is required.